



3D-МОДЕЛИ ТПО ИНДИВИДУАЛЬНЫМ ЗАДАНИЯМ ИНЖЕНЕРНОЙ ГРАФИКИ В СИСТЕМЕ ТРЕХМЕРНОГО ТВЕРДОТЕЛЬНОГО МОДЕЛИРОВАНИЯ

3D Studio MAX

**Наглядное пособие для студентов
строительных специальностей
дневной формы обучения**

Учебное электронное издание

УДК 744: 621:004.925.84

Автор:

Е.А.Новицкая

Рецензенты:

В.Ф. Зверев, зав.кафедрой «Железобетонные и каменные конструкции»БНТУ,
канд.тех.наук, доцент;

Л.П. Данелия, ст.преподаватель БГПУ им.М.Танка, член союза художников
Республики Беларусь.

Настоящее электронное пособие разработано на кафедре инженерной графики строительного профиля для студентов 1-ого курса строительных специальностей дневной формы обучения, изучающих курс инженерной графики.

Пособие представлено в виде презентационного материала, содержащего в себе статические виртуальные модели, созданные в системе трехмерного твердотельного моделирования 3D Studio MAX.

В нем проиллюстрированы отдельные варианты индивидуальных заданий по инженерной графике, на примере прямой трехгранной призмы, прямого кругового цилиндра и др. Показана последовательность образования отдельных геометрических объектов каждого блока задач. Данный материал подготовлен в помощь студентам при выполнении индивидуальных заданий по инженерной графике с целью повышения их уровня подготовки по этому предмету, а также другим графическим дисциплинам.

Адрес: 220013 г. Минск, пр-т Независимости, 150, учебный корпус 15

Тел.: (017) 265-97-39

e-mail: sf-grafika@yandex.ru

<http://www.bntu.by/sf-igsp.html>.

Регистрационный № ЭИ БНТУ / СФ66 – 1.2011



3ds max



© БНТУ, 2011

© Новицкая Е.А., компьютерный дизайн, 2011

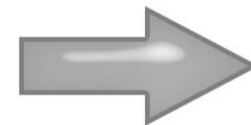
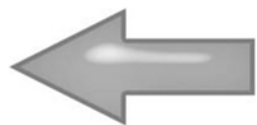
Содержание

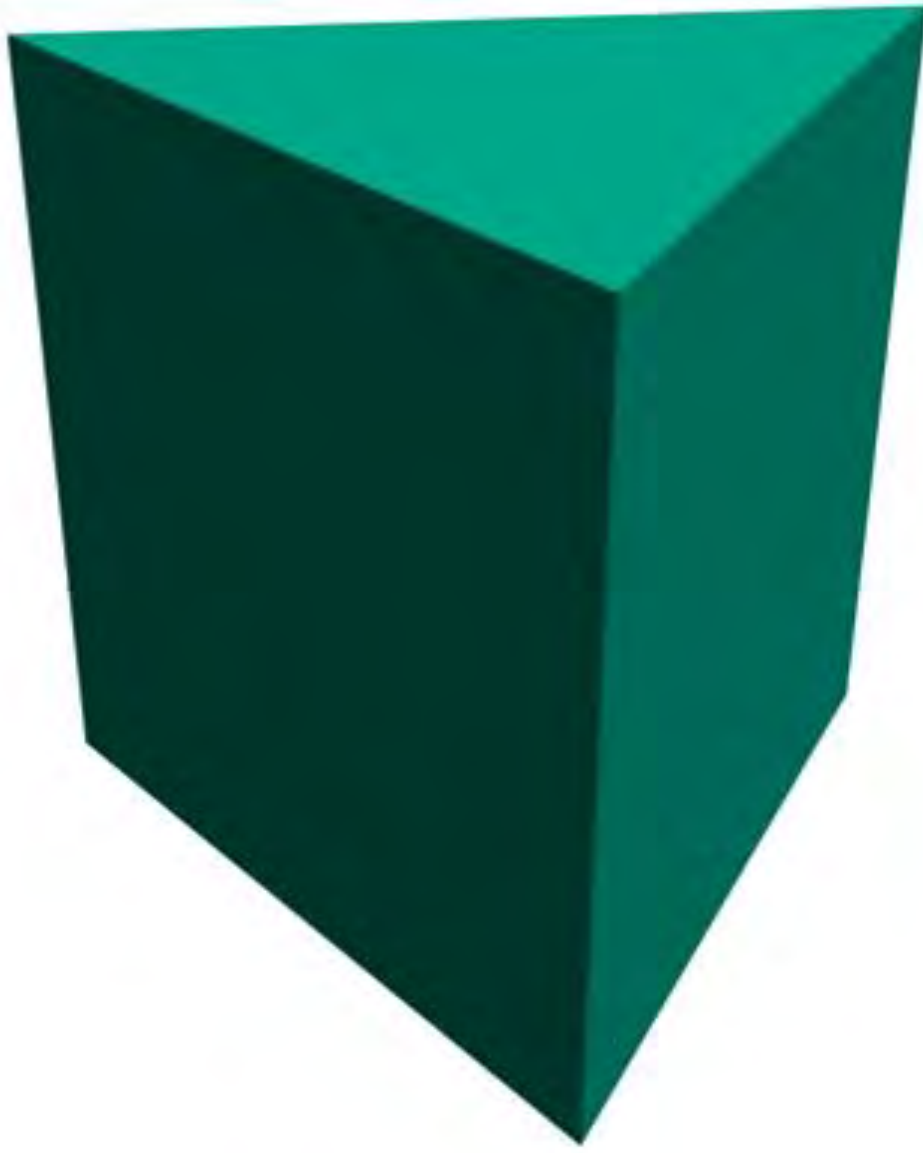
• Задача № 1. Прямая трехгранная призма со сквозными отверстиями.	4
• Задача № 2. Прямой круговой цилиндр со сквозными отверстиями.....	62
• Задача № 3. Модель со сквозными отверстиями.....	105
• Задача № 4. Модель со сквозными отверстиями.....	135
• Задача № 5. Модель со сквозными отверстиями.....	175
• Рекомендуемая литература.....	207

Задача № 1. ПРЯМАЯ ТРЕХГРАННАЯ ПРИЗМА СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

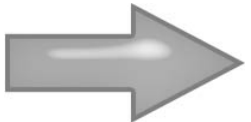
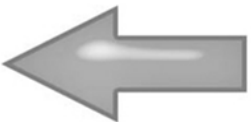


СОДЕРЖАНИЕ



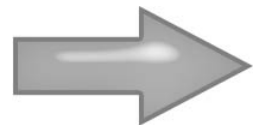
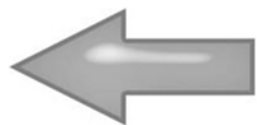


СОДЕРЖАНИЕ



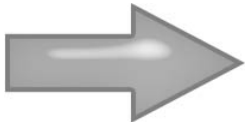
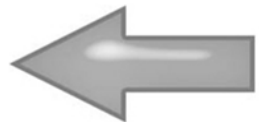


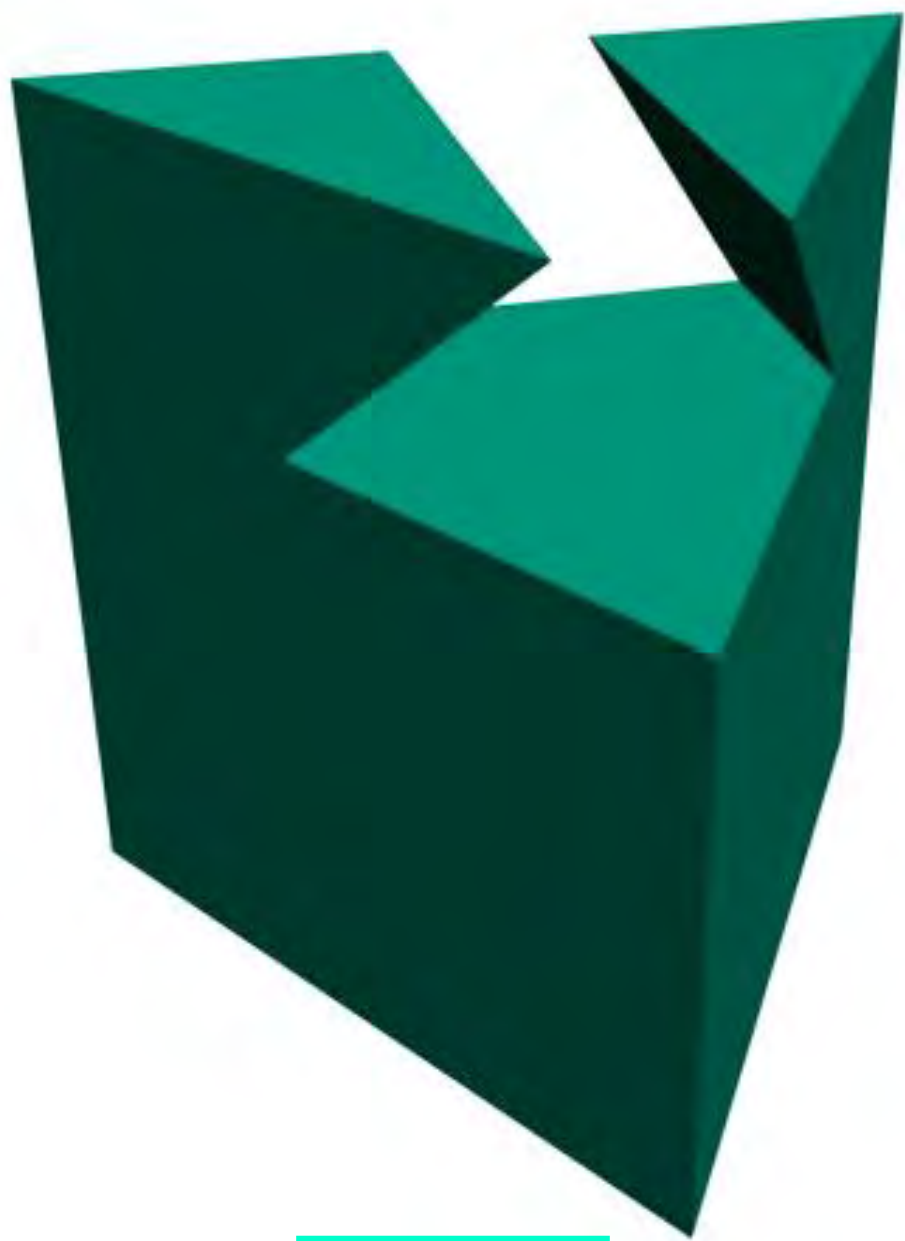
СОДЕРЖАНИЕ



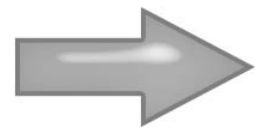
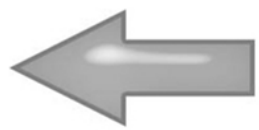


СОДЕРЖАНИЕ



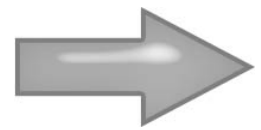
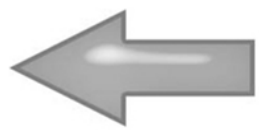


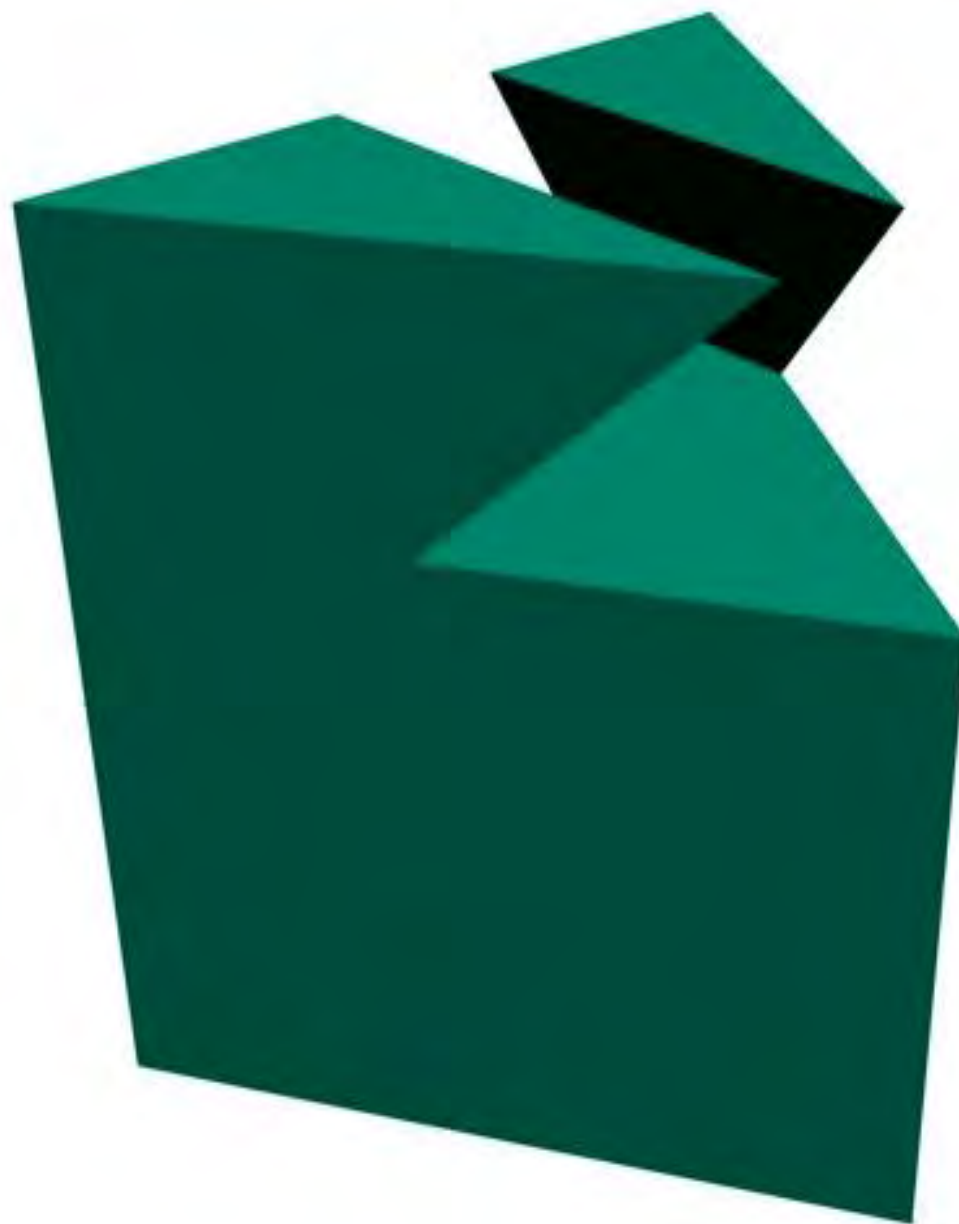
СОДЕРЖАНИЕ



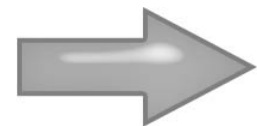
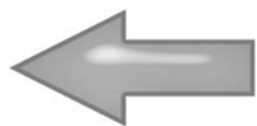


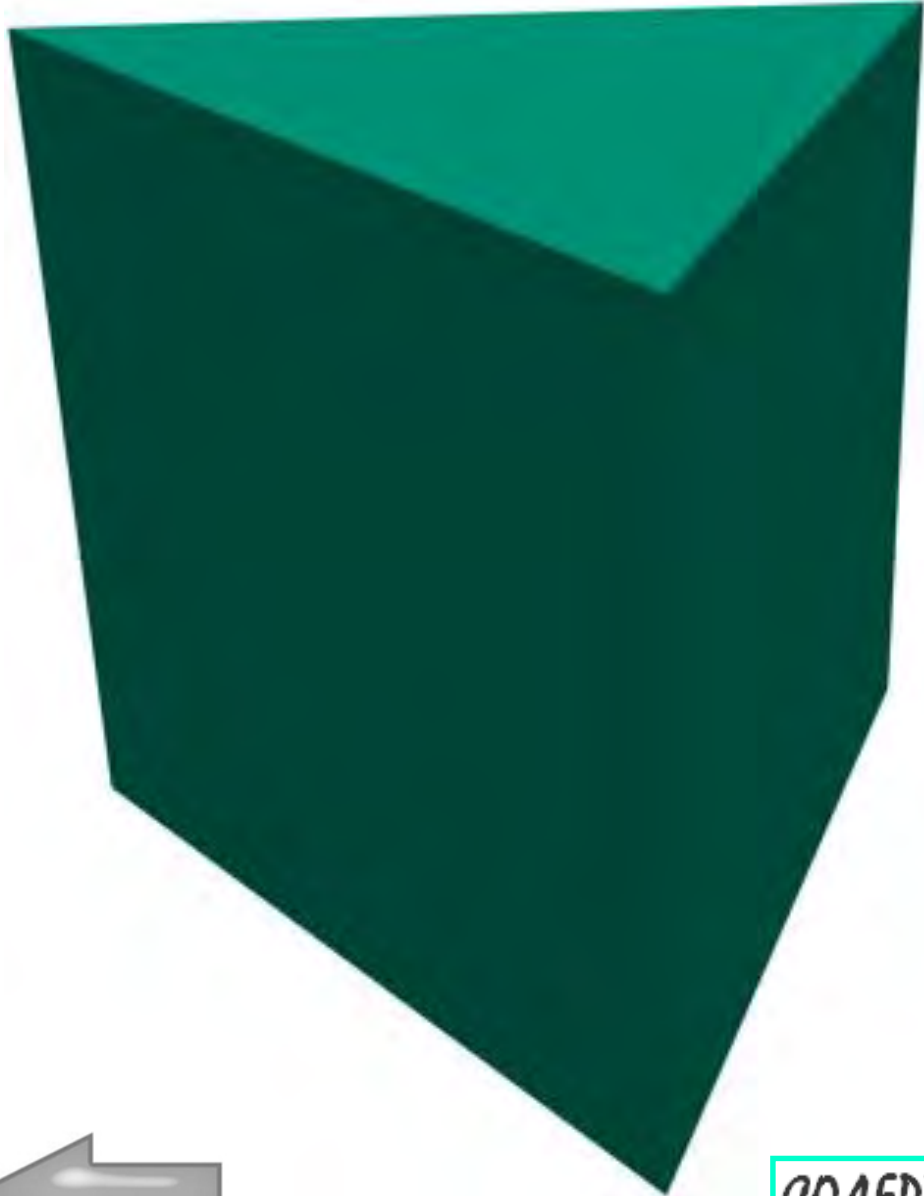
СОДЕРЖАНИЕ



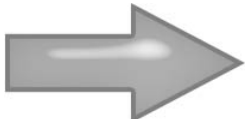


СОДЕРЖАНИЕ



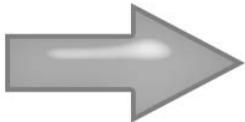


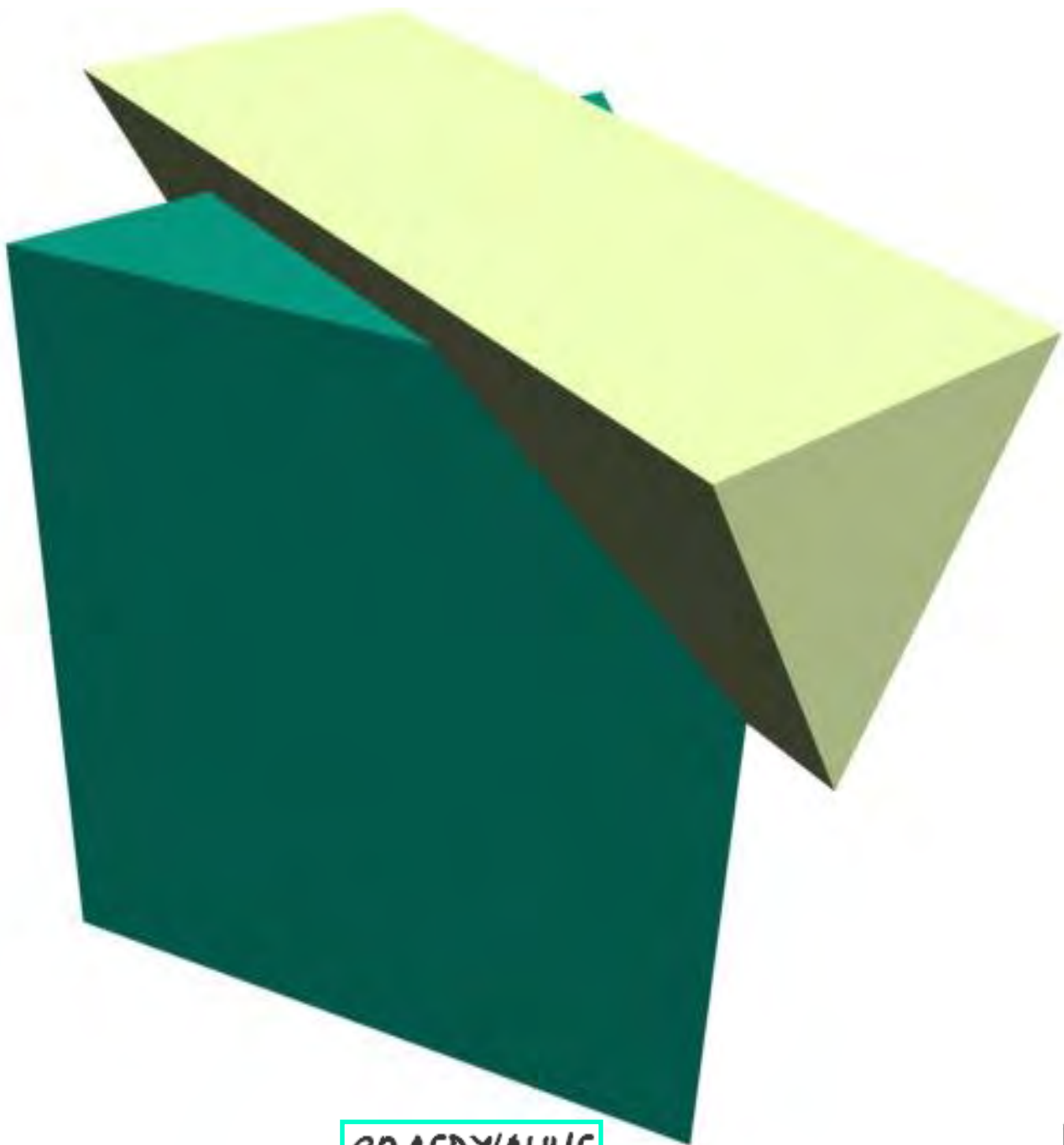
СОДЕРЖАНИЕ



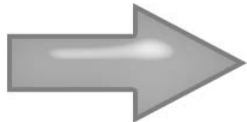
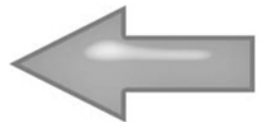


СОДЕРЖАНИЕ



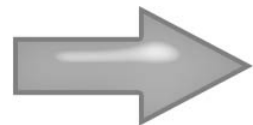
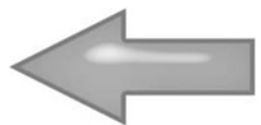


СОДЕРЖАНИЕ



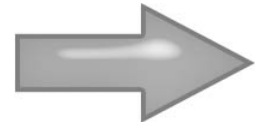
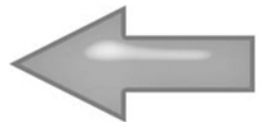


СОДЕРЖАНИЕ



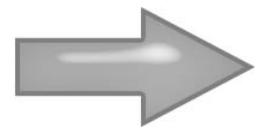
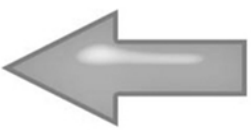


СОДЕРЖАНИЕ



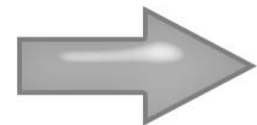
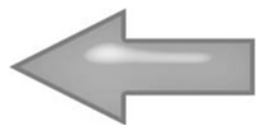


СОДЕРЖАНИЕ



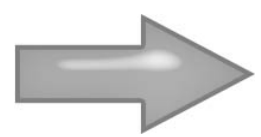
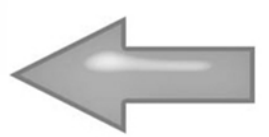


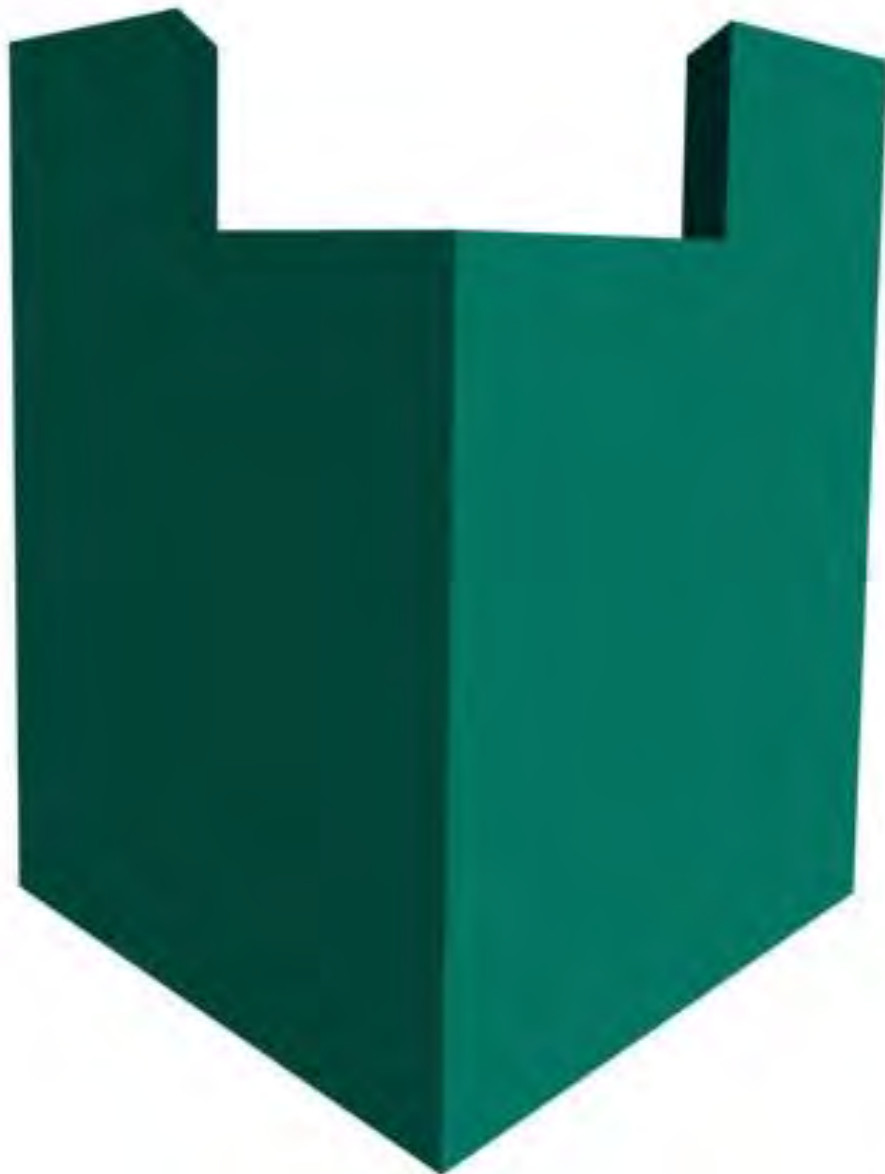
СОДЕРЖАНИЕ



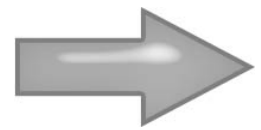
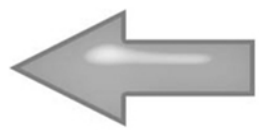


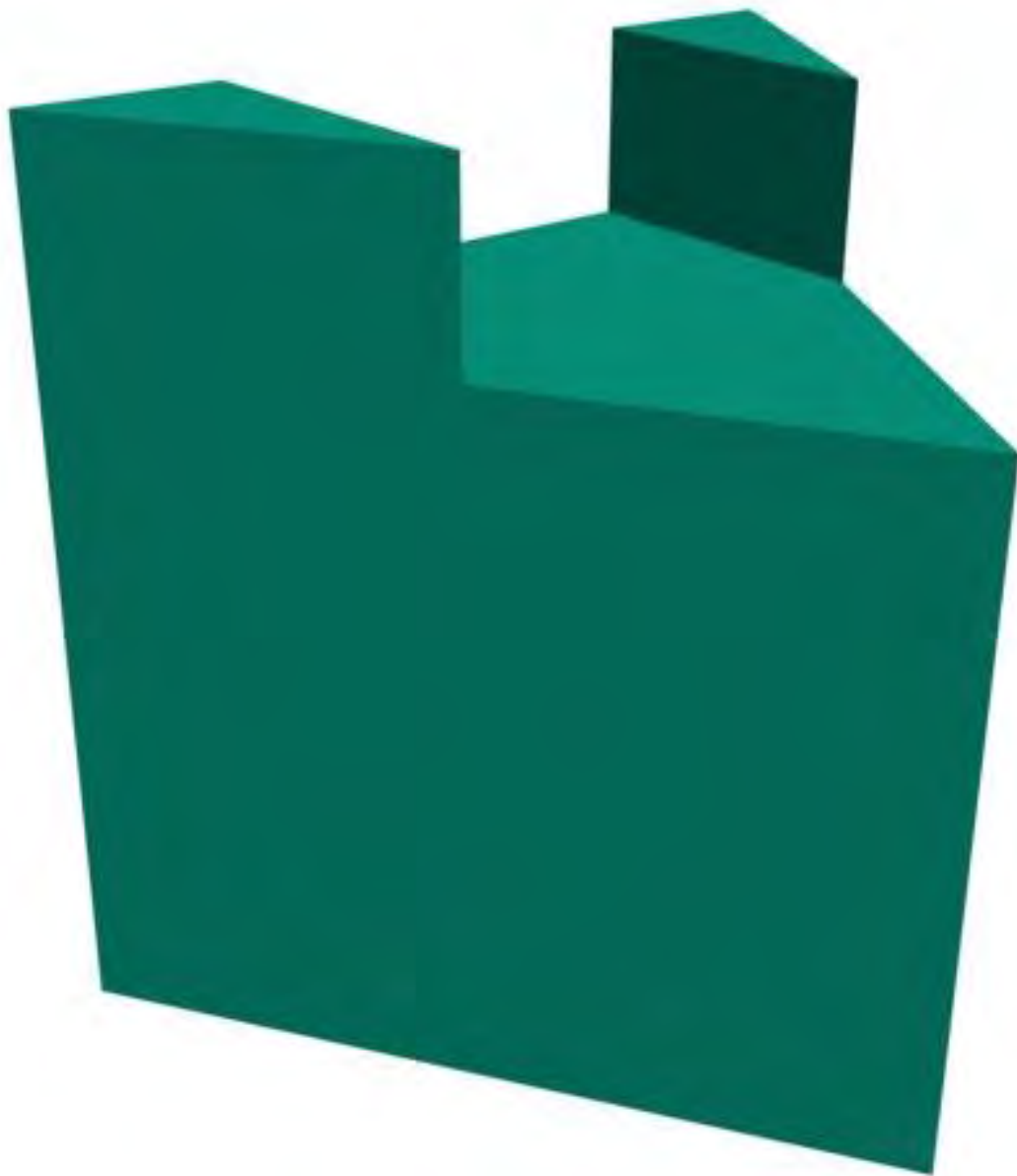
СОДЕРЖАНИЕ



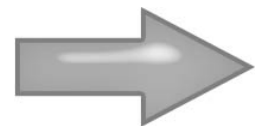
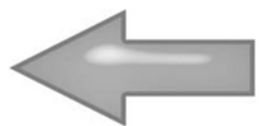


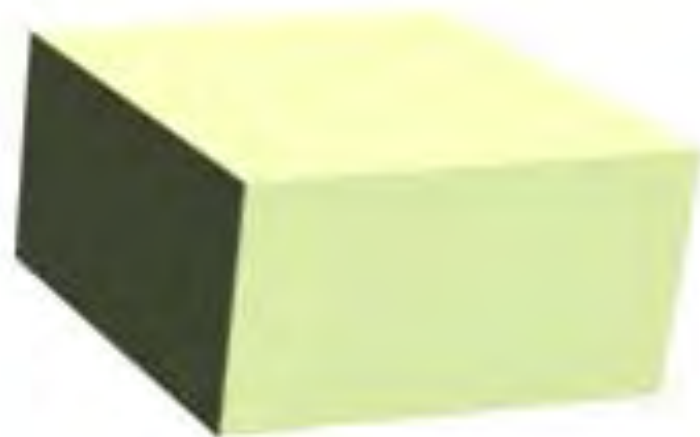
СОДЕРЖАНИЕ



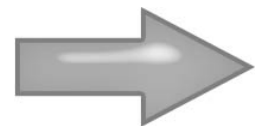
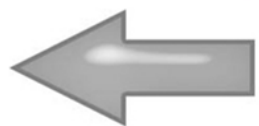


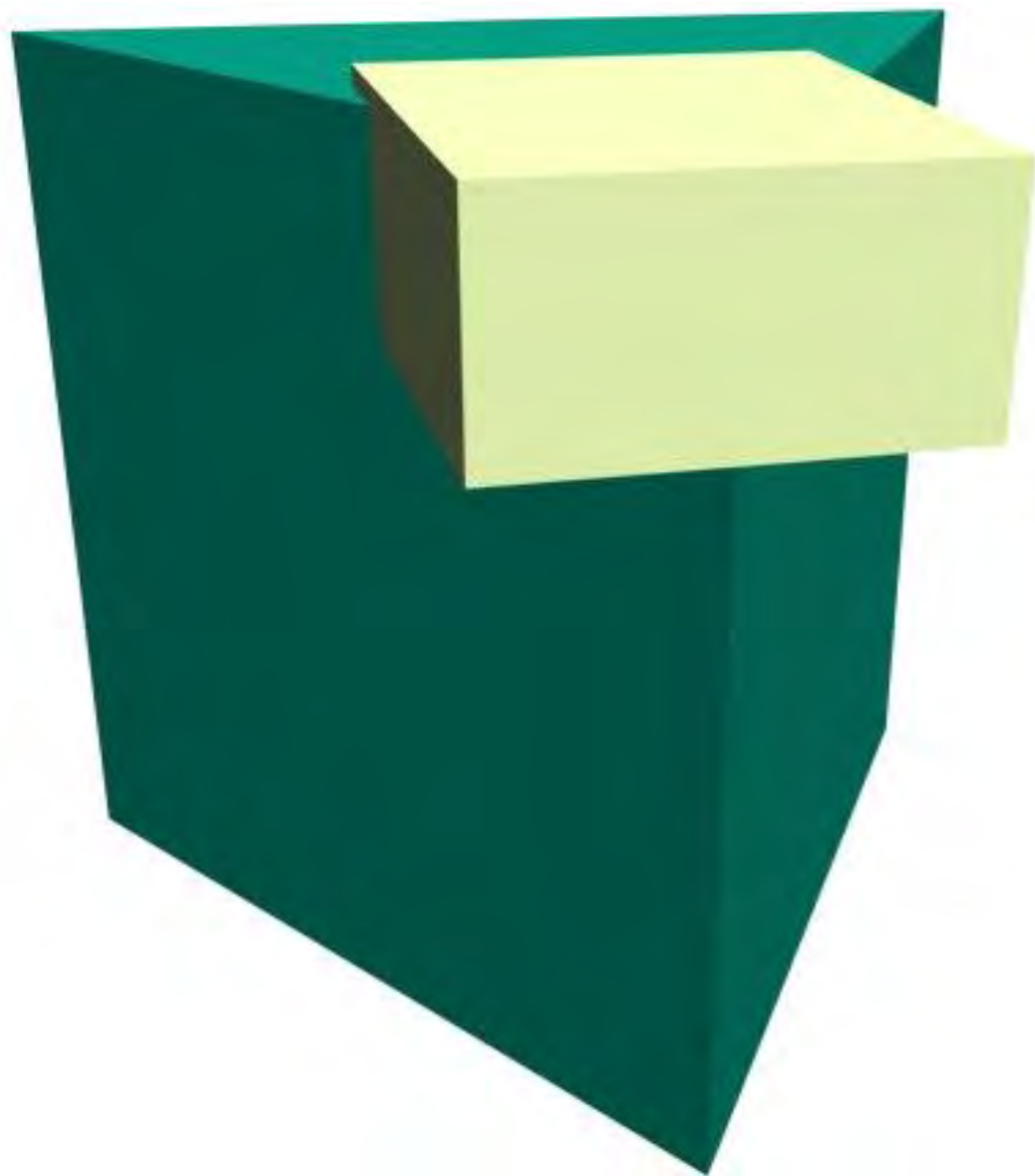
СОДЕРЖАНИЕ



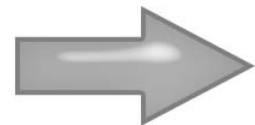
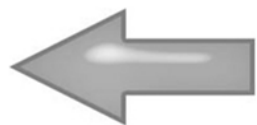


СОДЕРЖАНИЕ



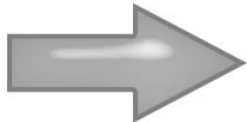
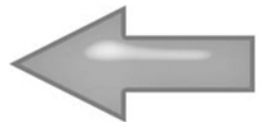


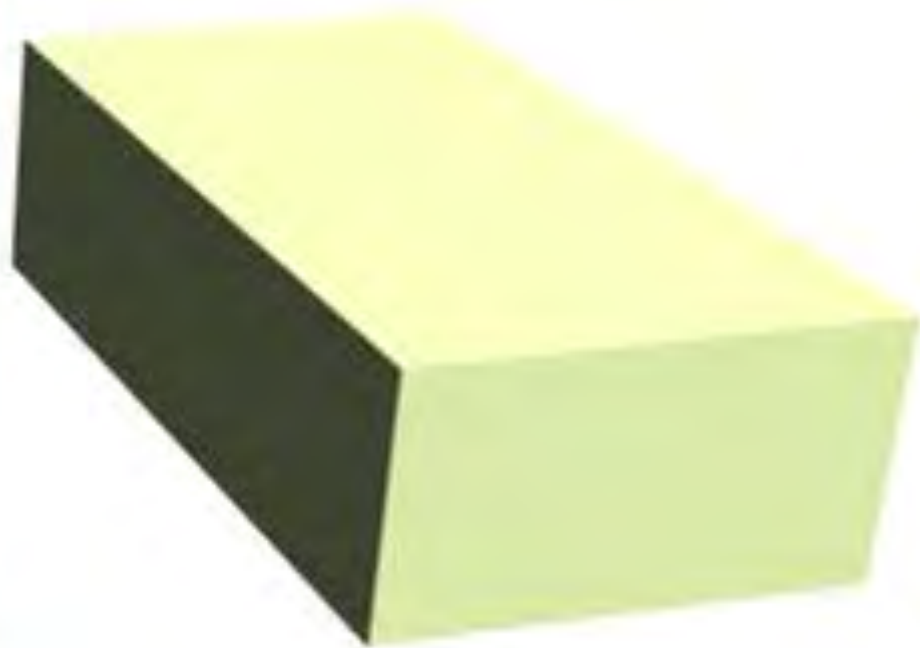
СОДЕРЖАНИЕ



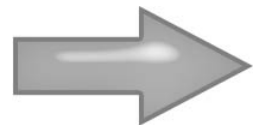
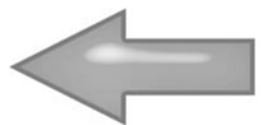


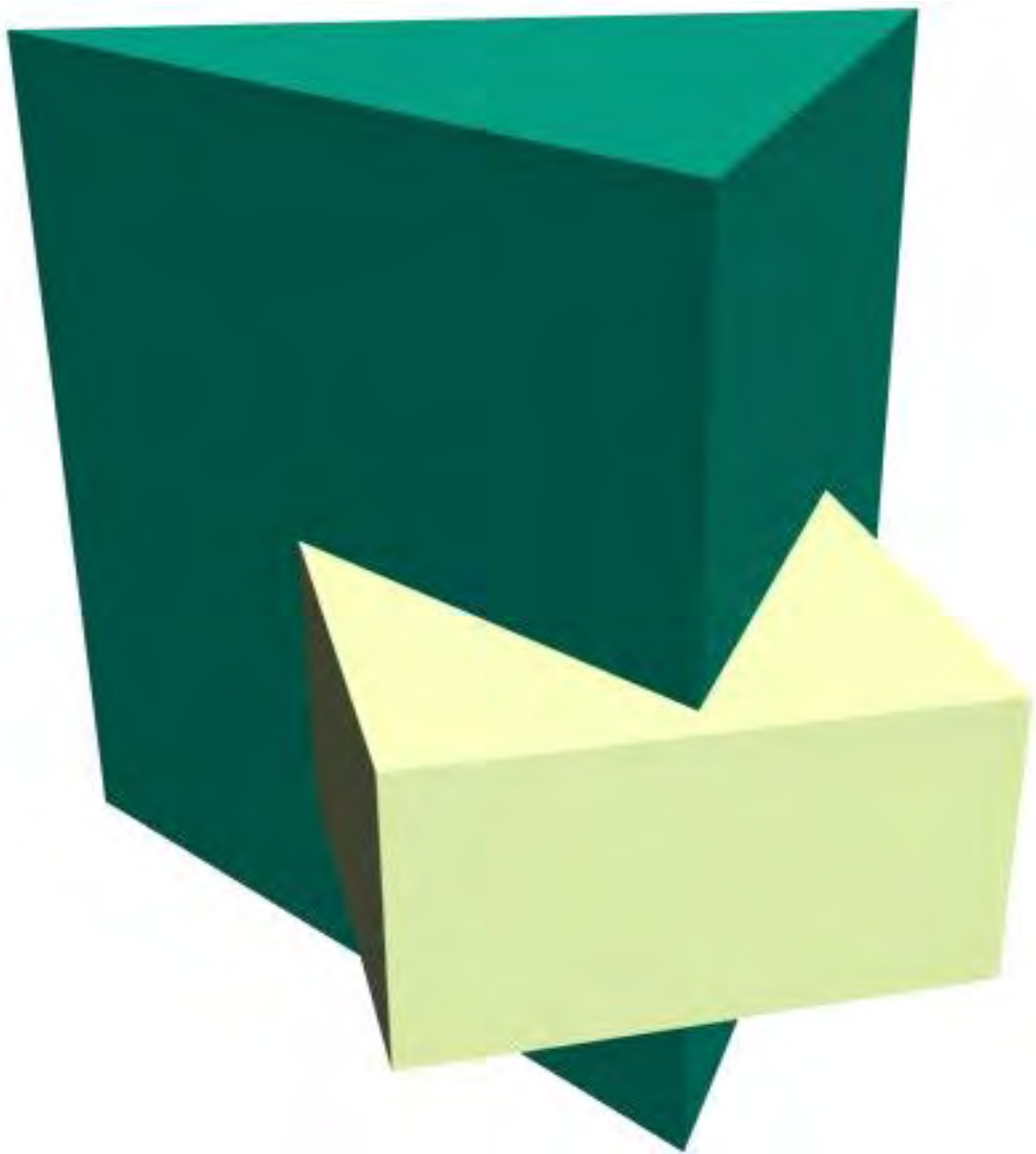
СОДЕРЖАНИЕ



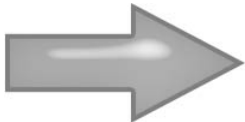
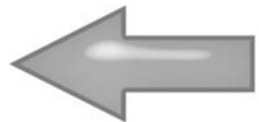


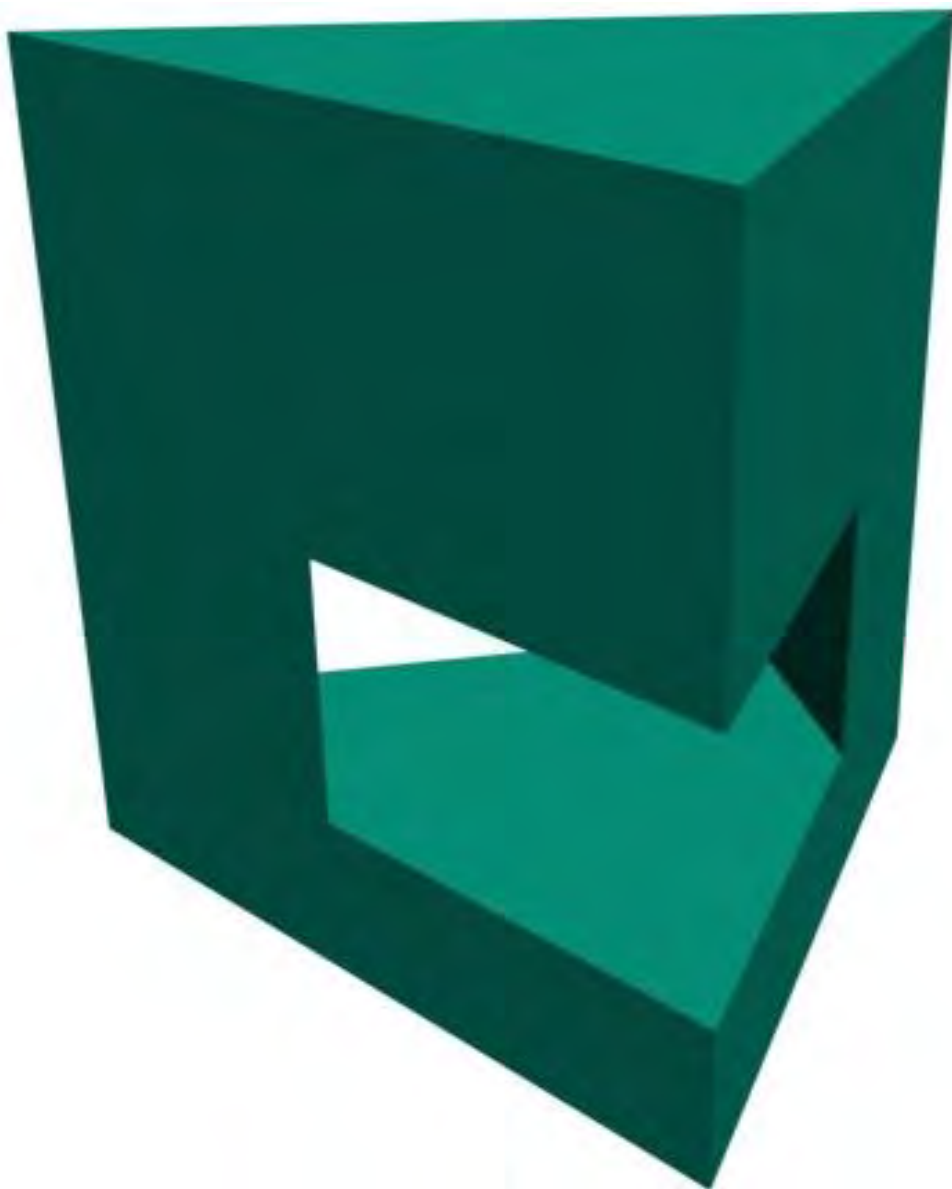
СОДЕРЖАНИЕ



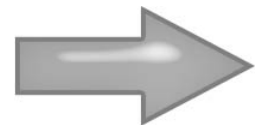
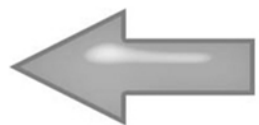


СОДЕРЖАНИЕ



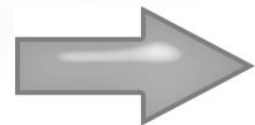
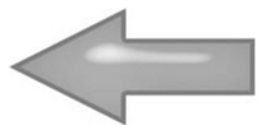


СОДЕРЖАНИЕ



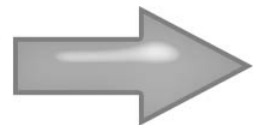
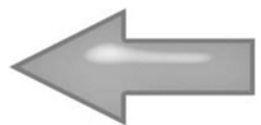


СОДЕРЖАНИЕ



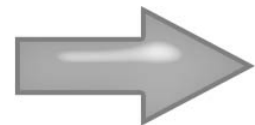
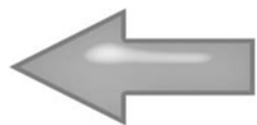


СОДЕРЖАНИЕ



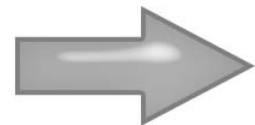
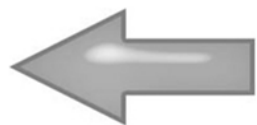


СОДЕРЖАНИЕ



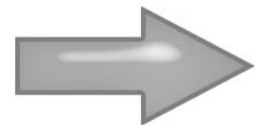
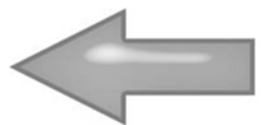


СОДЕРЖАНИЕ



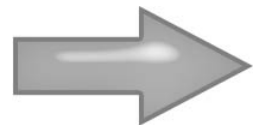
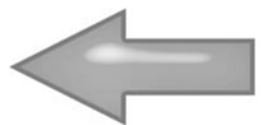


СОДЕРЖАНИЕ



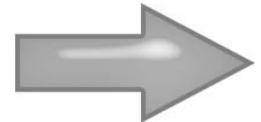
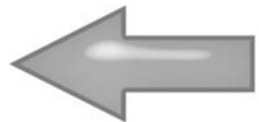


СОДЕРЖАНИЕ



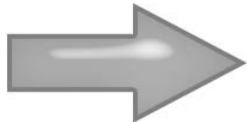
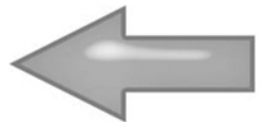


СОДЕРЖАНИЕ



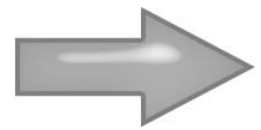
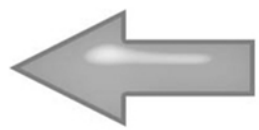


СОДЕРЖАНИЕ



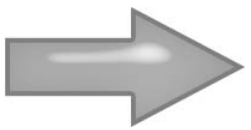
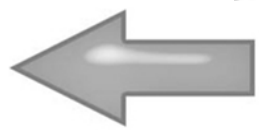


СОДЕРЖАНИЕ



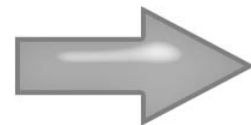
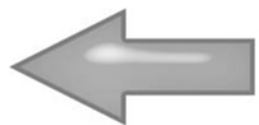


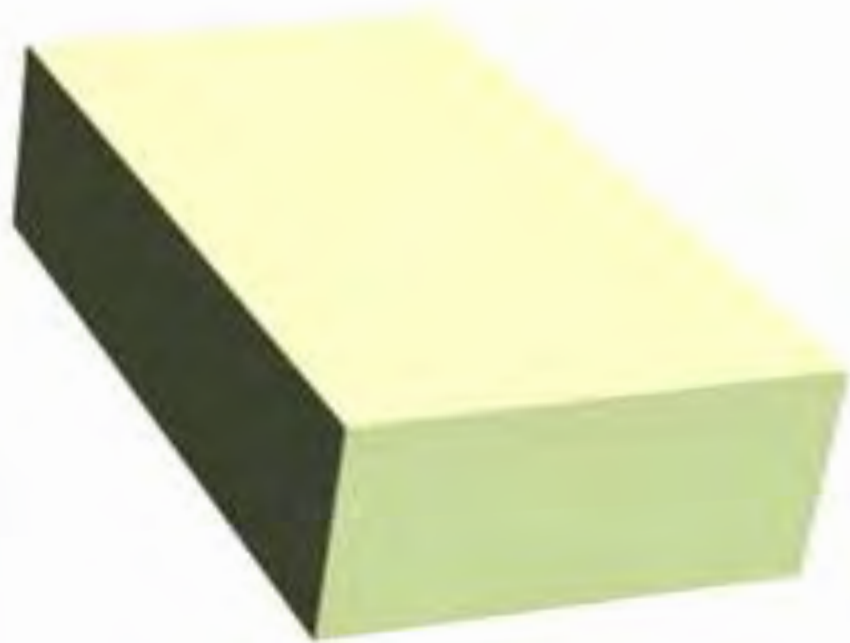
СОДЕРЖАНИЕ



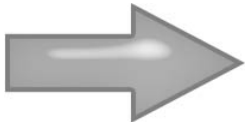
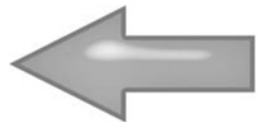


СОДЕРЖАНИЕ



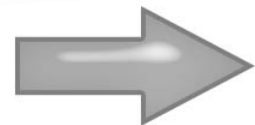
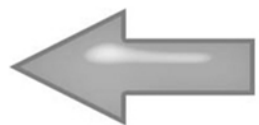


СОДЕРЖАНИЕ



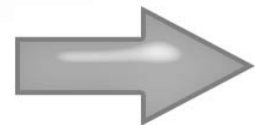
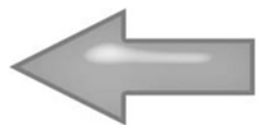


СОДЕРЖАНИЕ



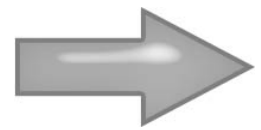
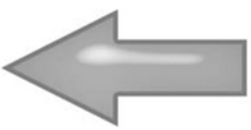


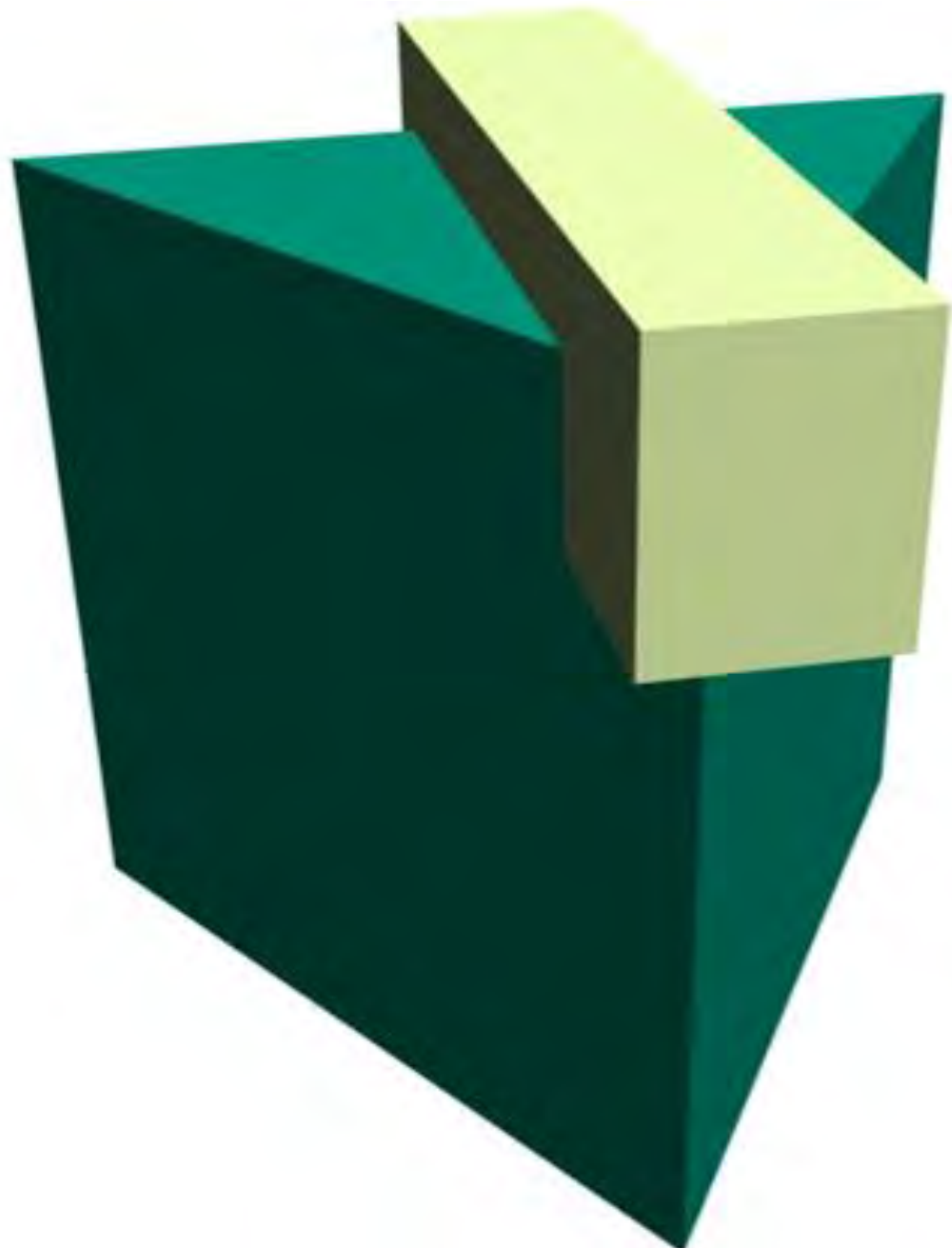
СОДЕРЖАНИЕ



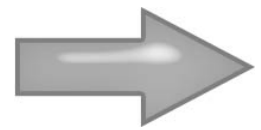
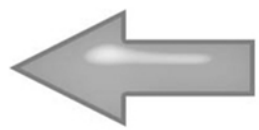


СОДЕРЖАНИЕ



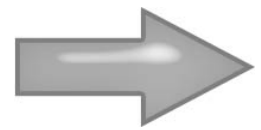
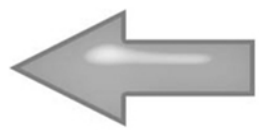


СОДЕРЖАНИЕ



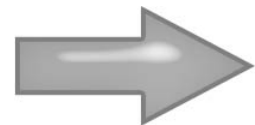
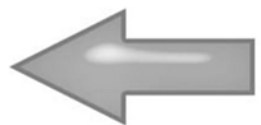


СОДЕРЖАНИЕ



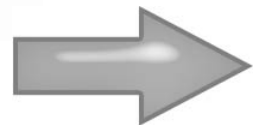
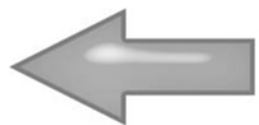


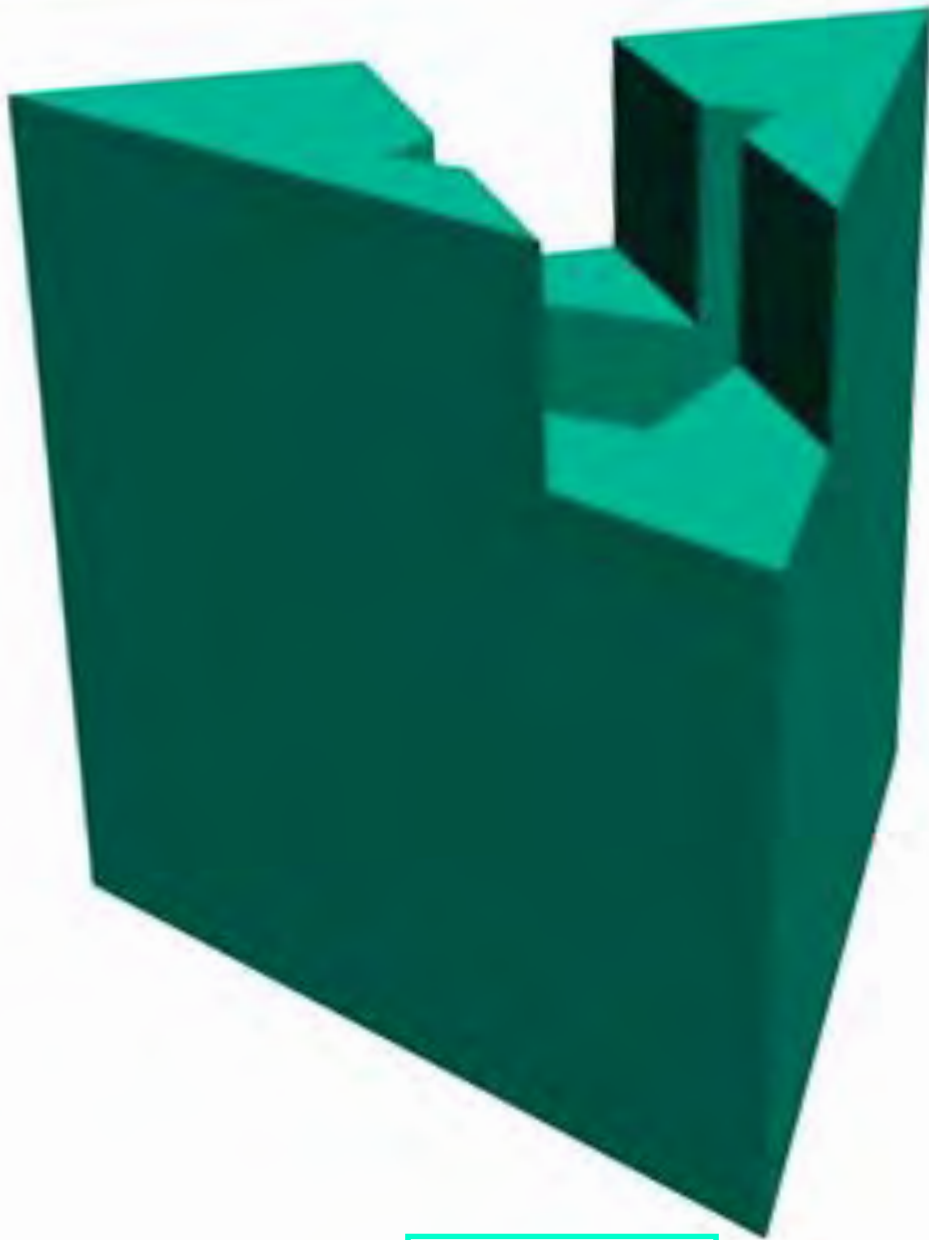
СОДЕРЖАНИЕ



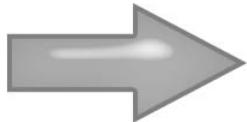
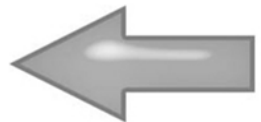


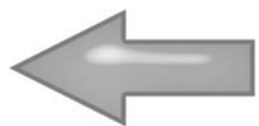
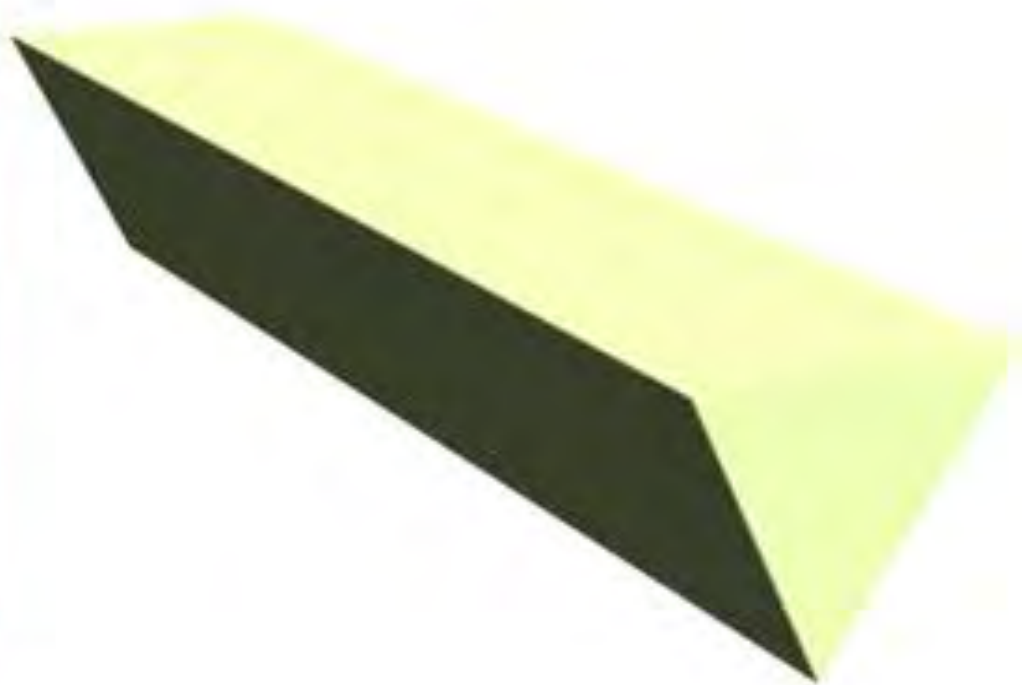
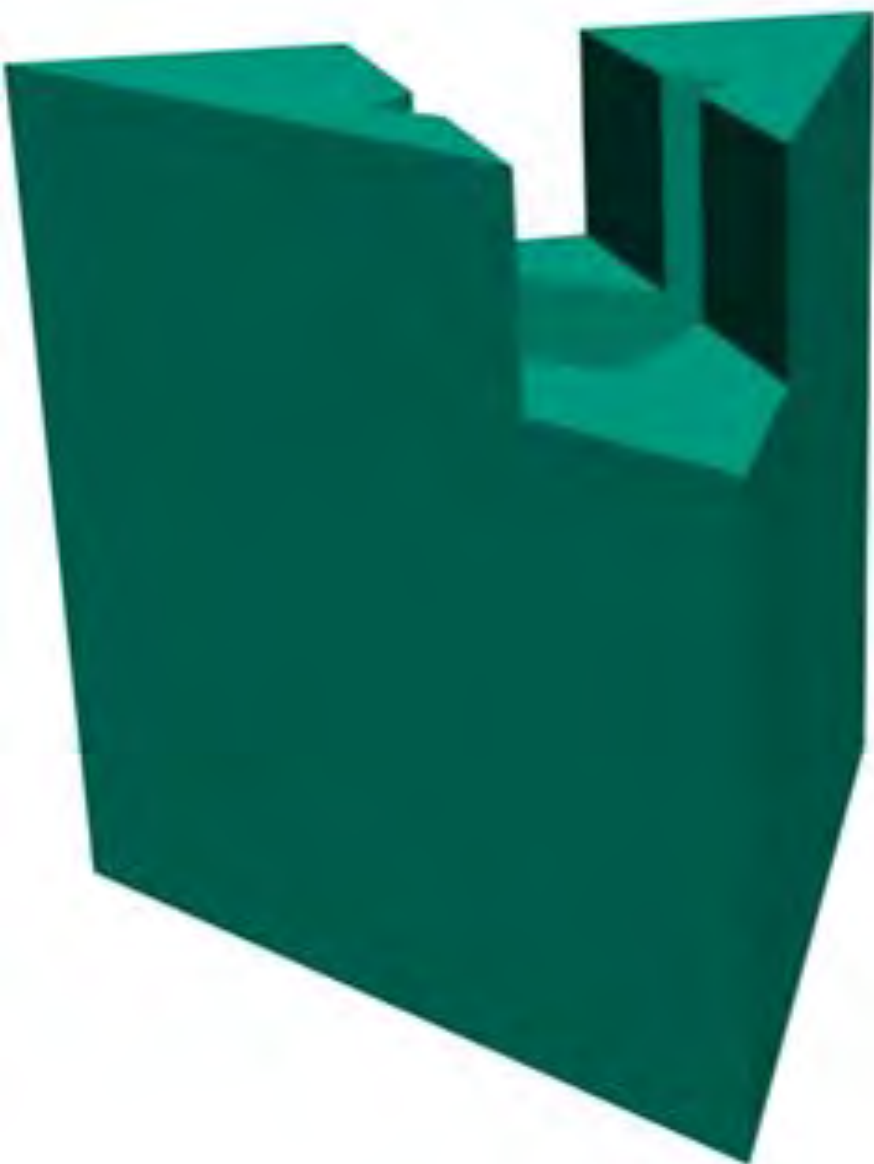
СОДЕРЖАНИЕ



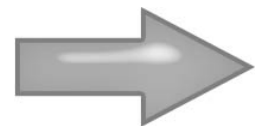


СОДЕРЖАНИЕ



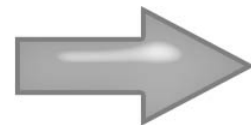
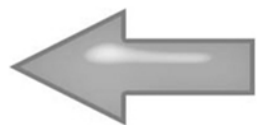


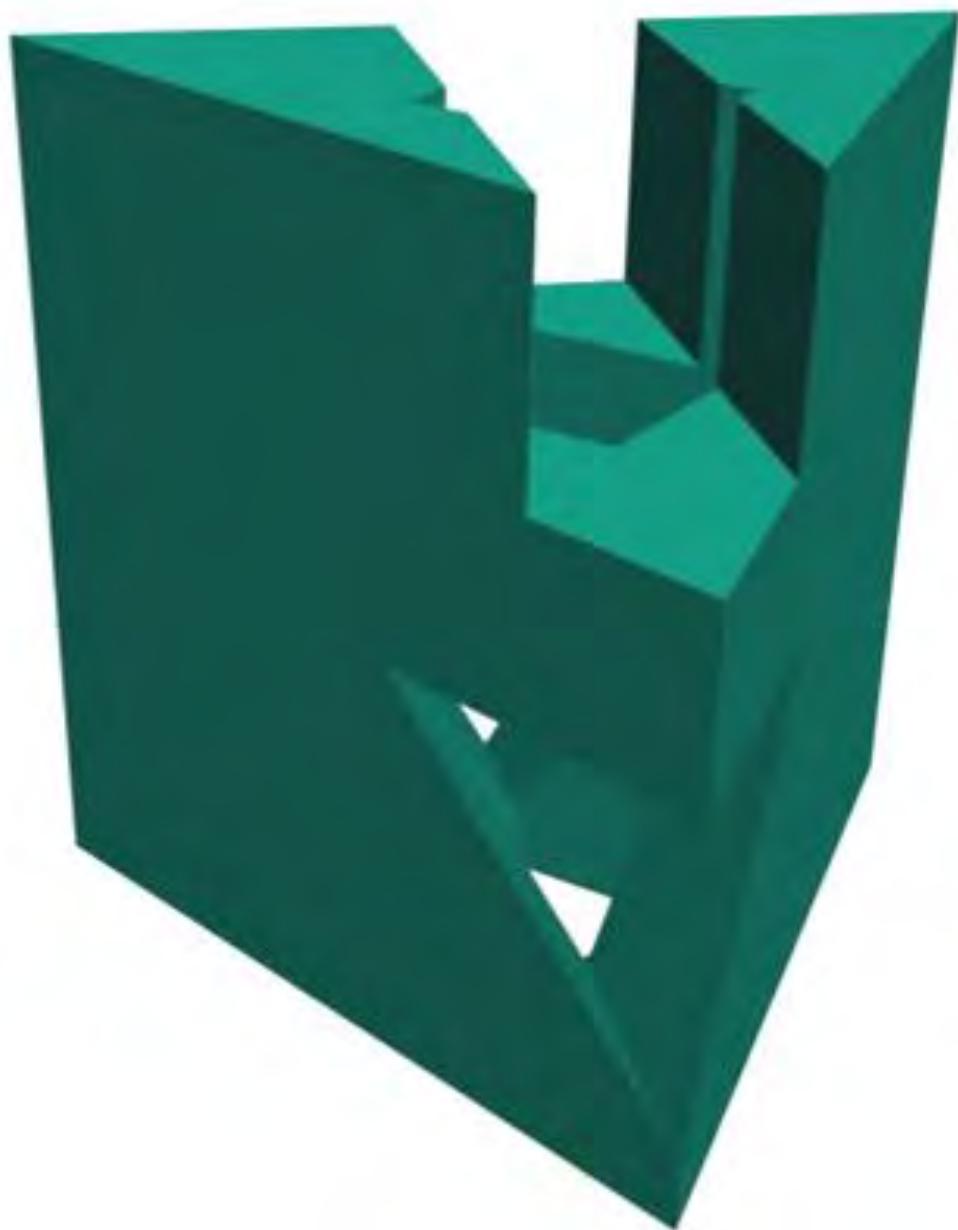
СОДЕРЖАНИЕ



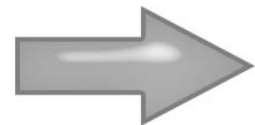
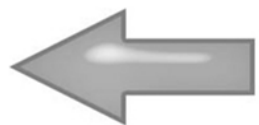


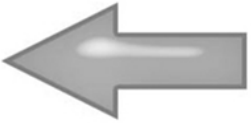
СОДЕРЖАНИЕ



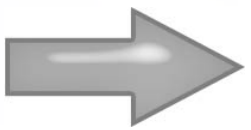


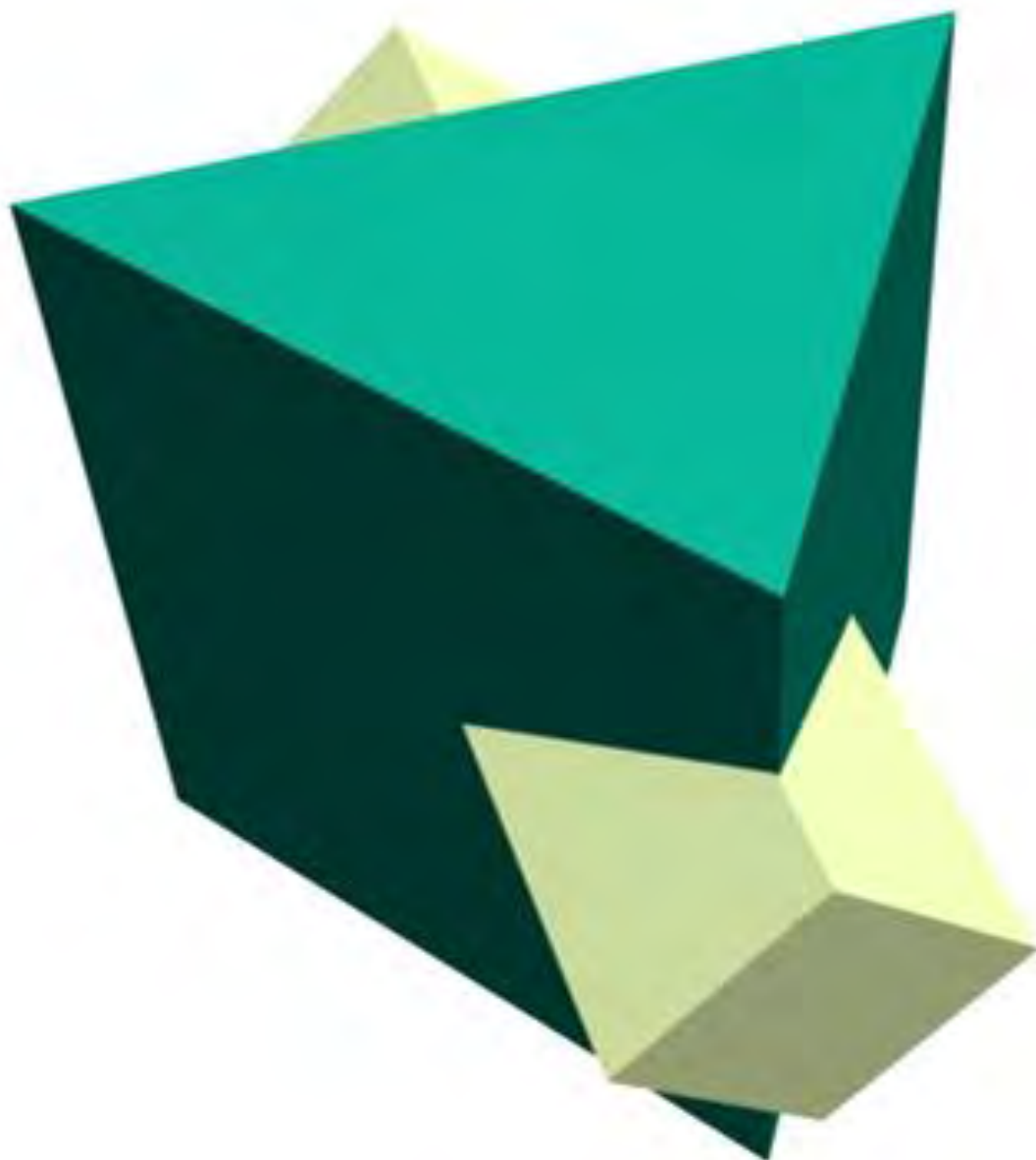
СОДЕРЖАНИЕ



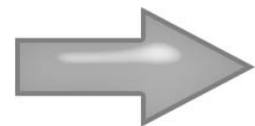
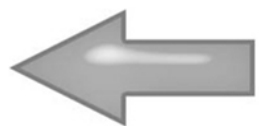


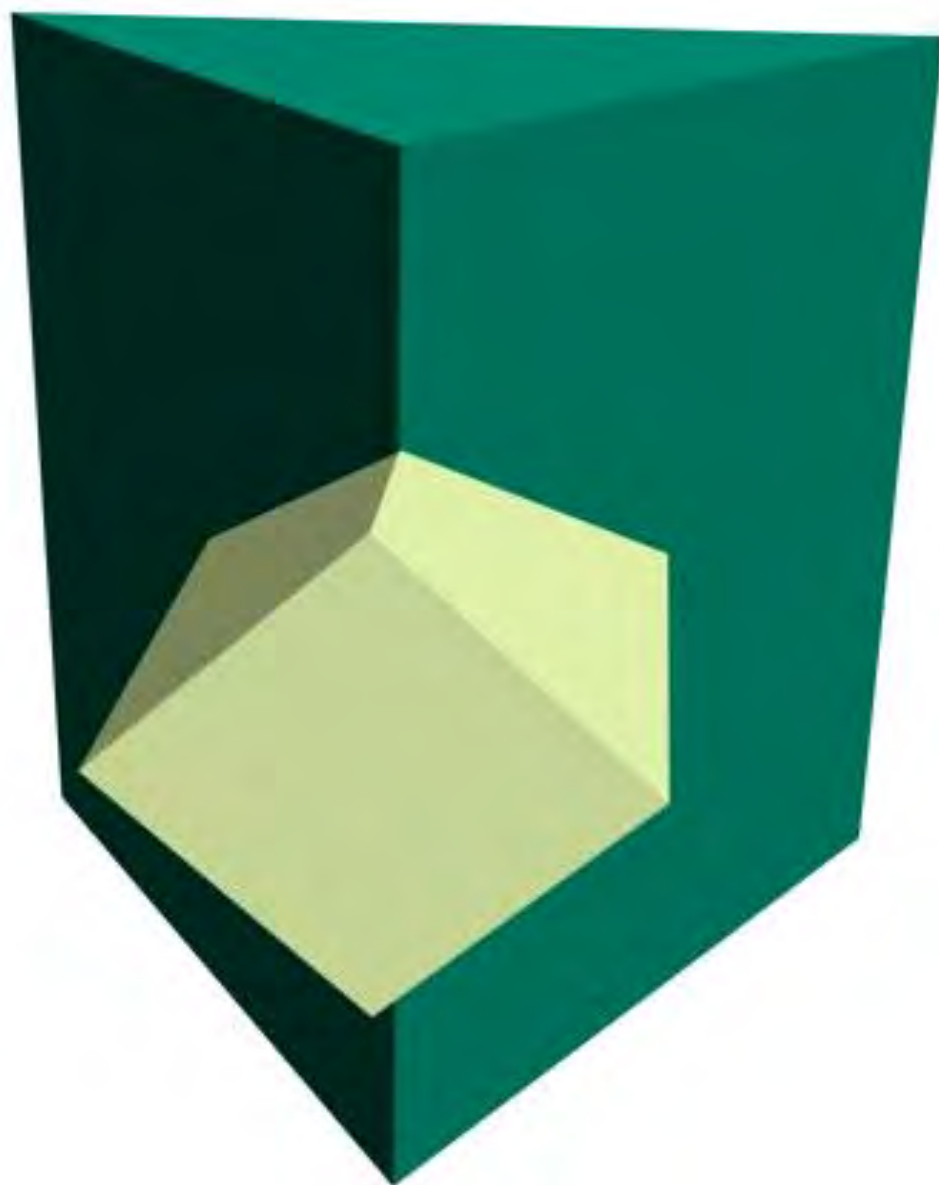
СОДЕРЖАНИЕ



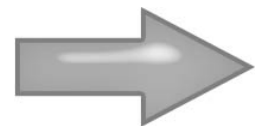
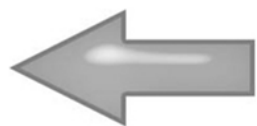


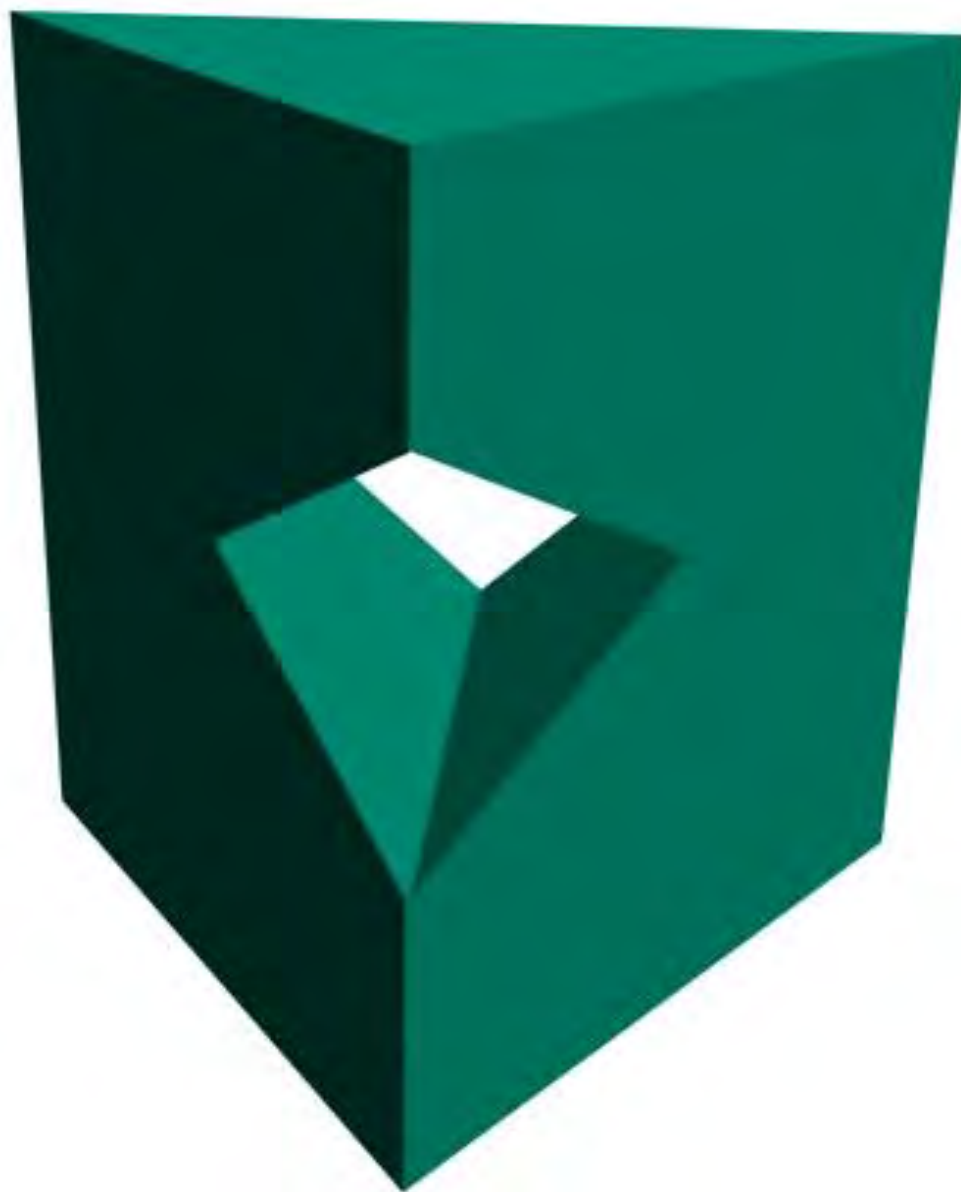
СОДЕРЖАНИЕ



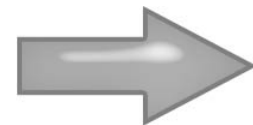
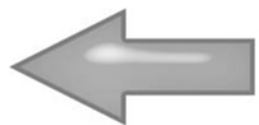


СОДЕРЖАНИЕ



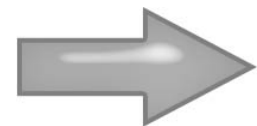
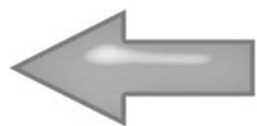


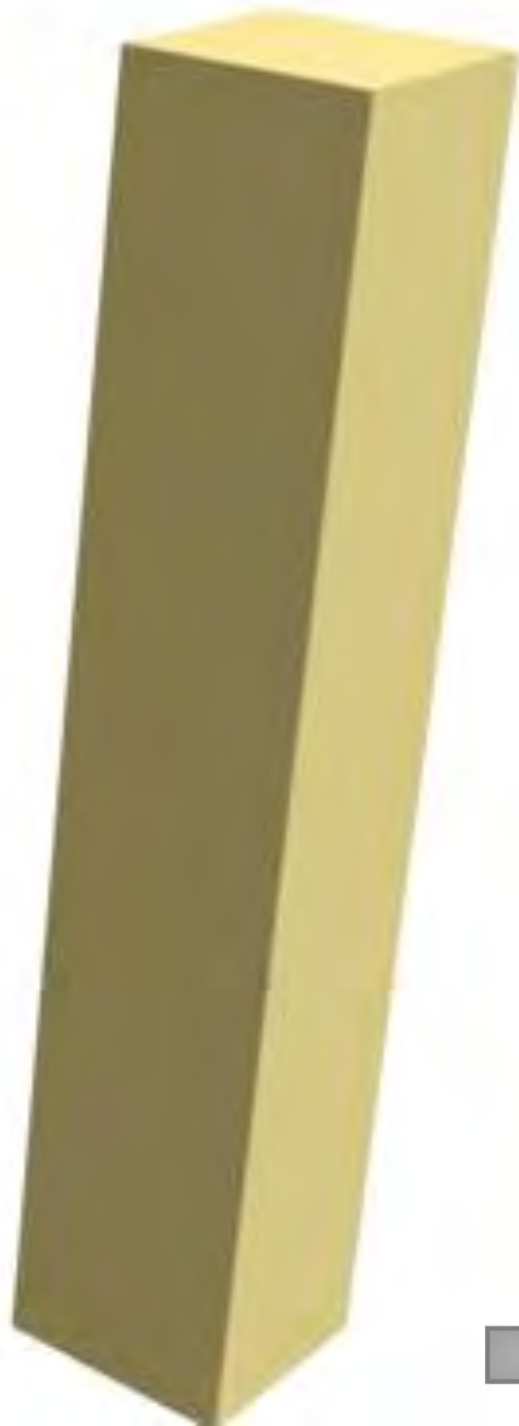
СОДЕРЖАНИЕ



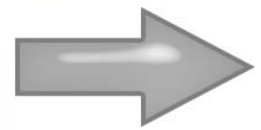
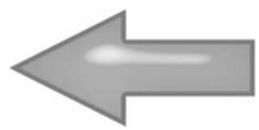


СОДЕРЖАНИЕ



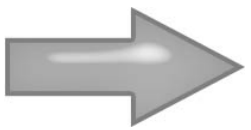
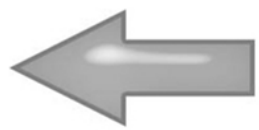


СОДЕРЖАНИЕ



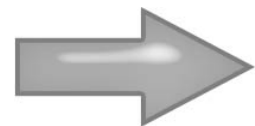
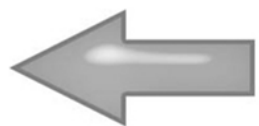


СОДЕРЖАНИЕ



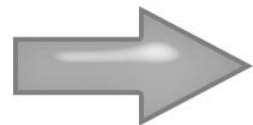
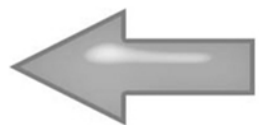


СОДЕРЖАНИЕ



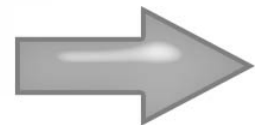
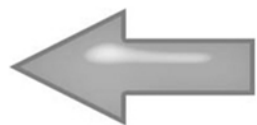


СОДЕРЖАНИЕ



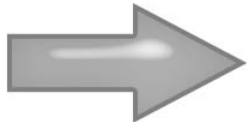
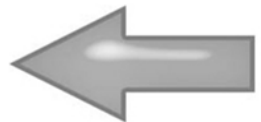


СОДЕРЖАНИЕ



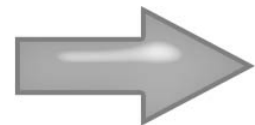
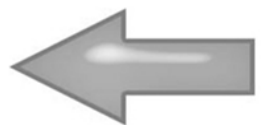


СОДЕРЖАНИЕ





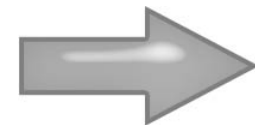
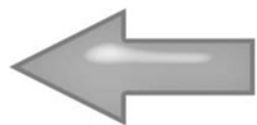
СОДЕРЖАНИЕ



Задача № 2. ПРЯМОЙ КРУГОВОЙ ЦИЛИНДР СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

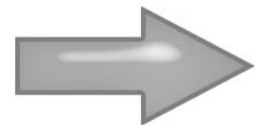
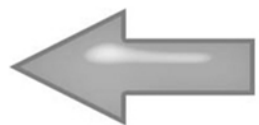


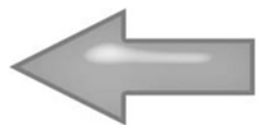
СОДЕРЖАНИЕ



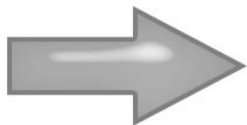


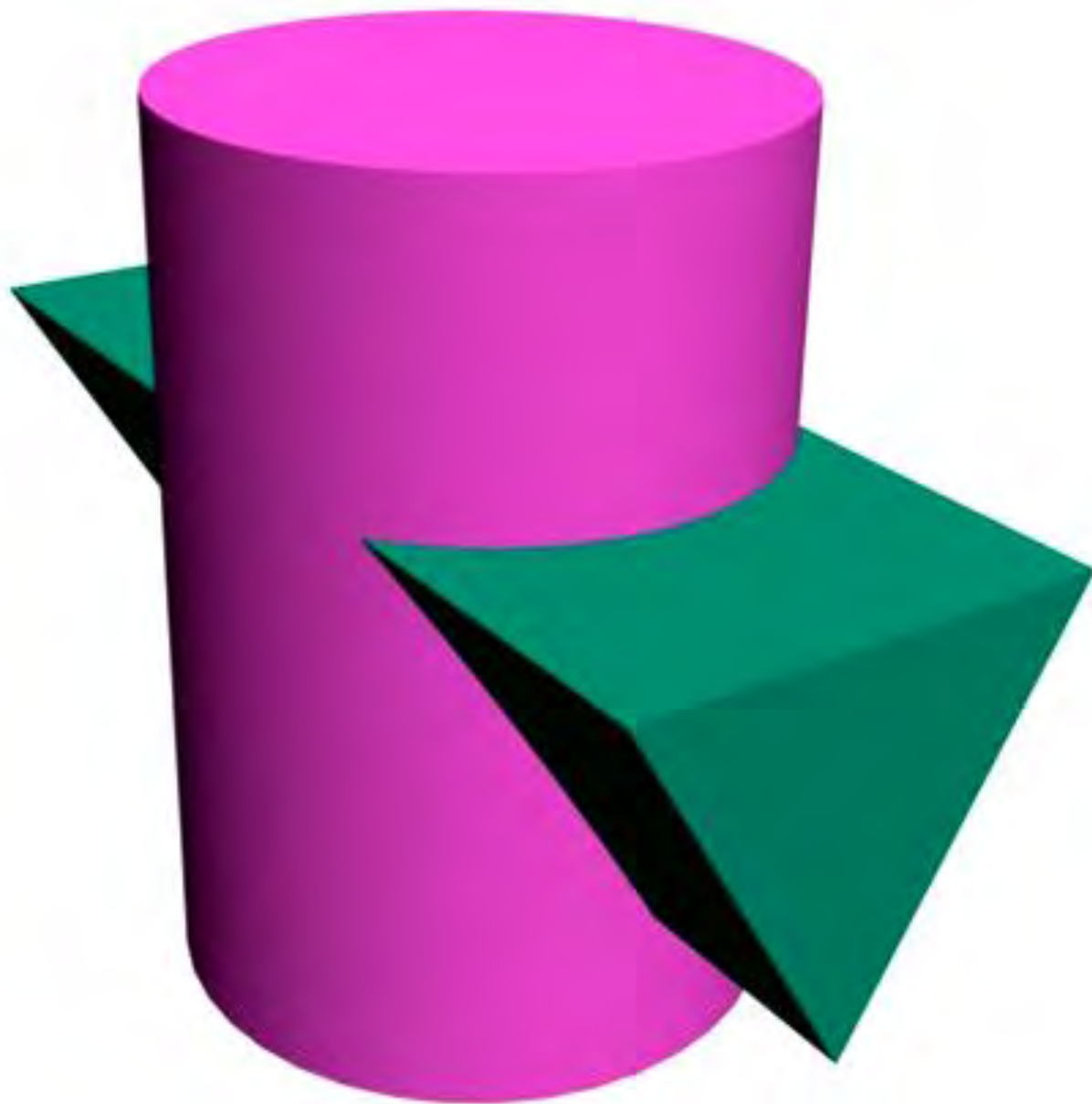
СОДЕРЖАНИЕ



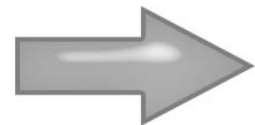
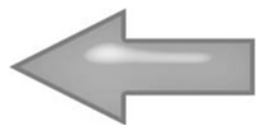


СОДЕРЖАНИЕ



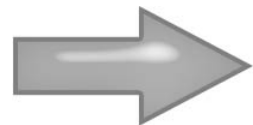
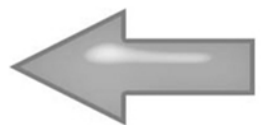


СОДЕРЖАНИЕ



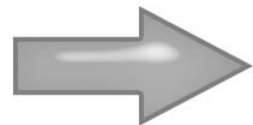
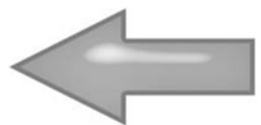


СОДЕРЖАНИЕ



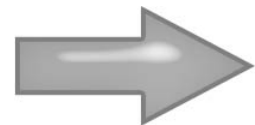
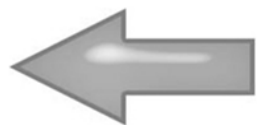


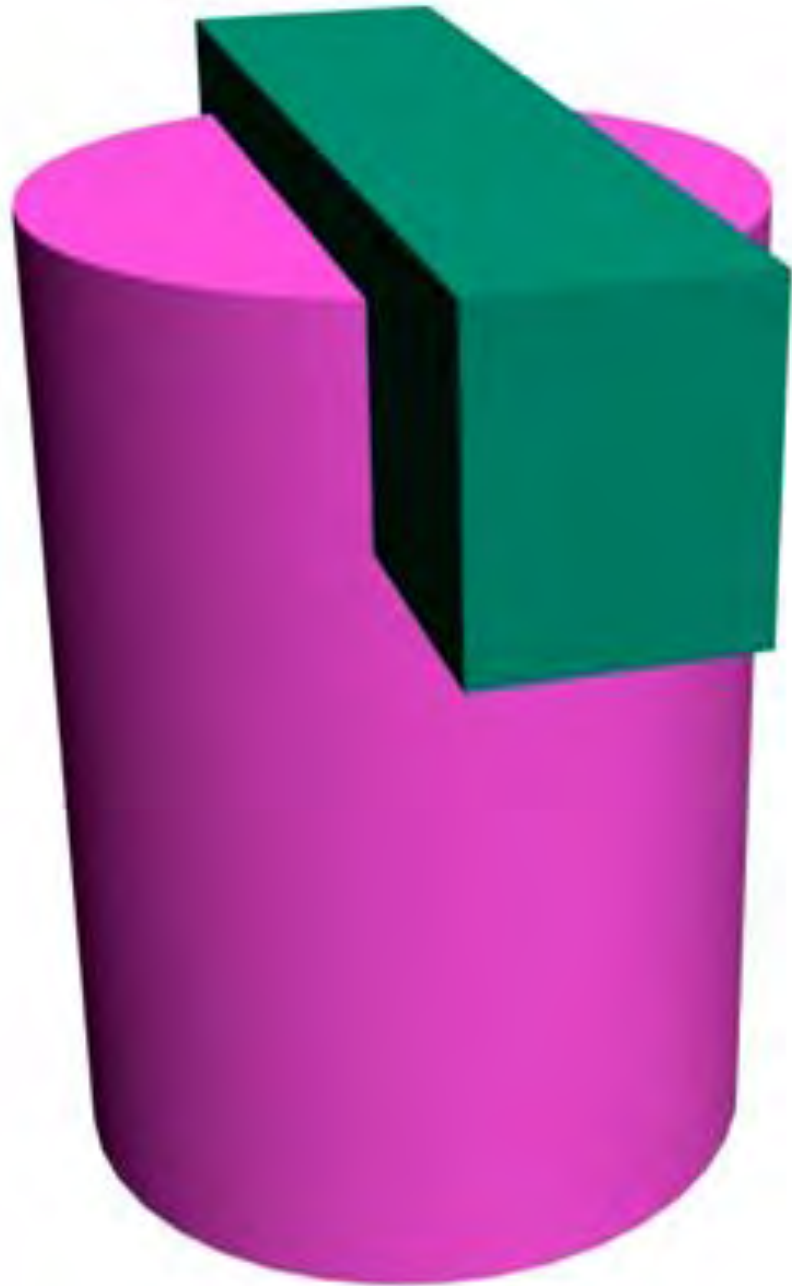
СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

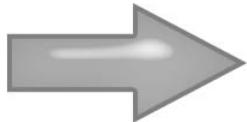
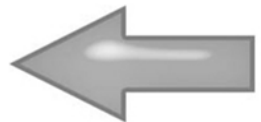


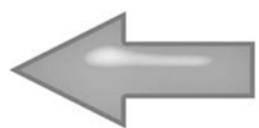


СОДЕРЖАНИЕ

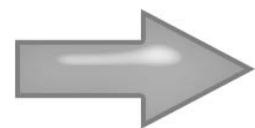


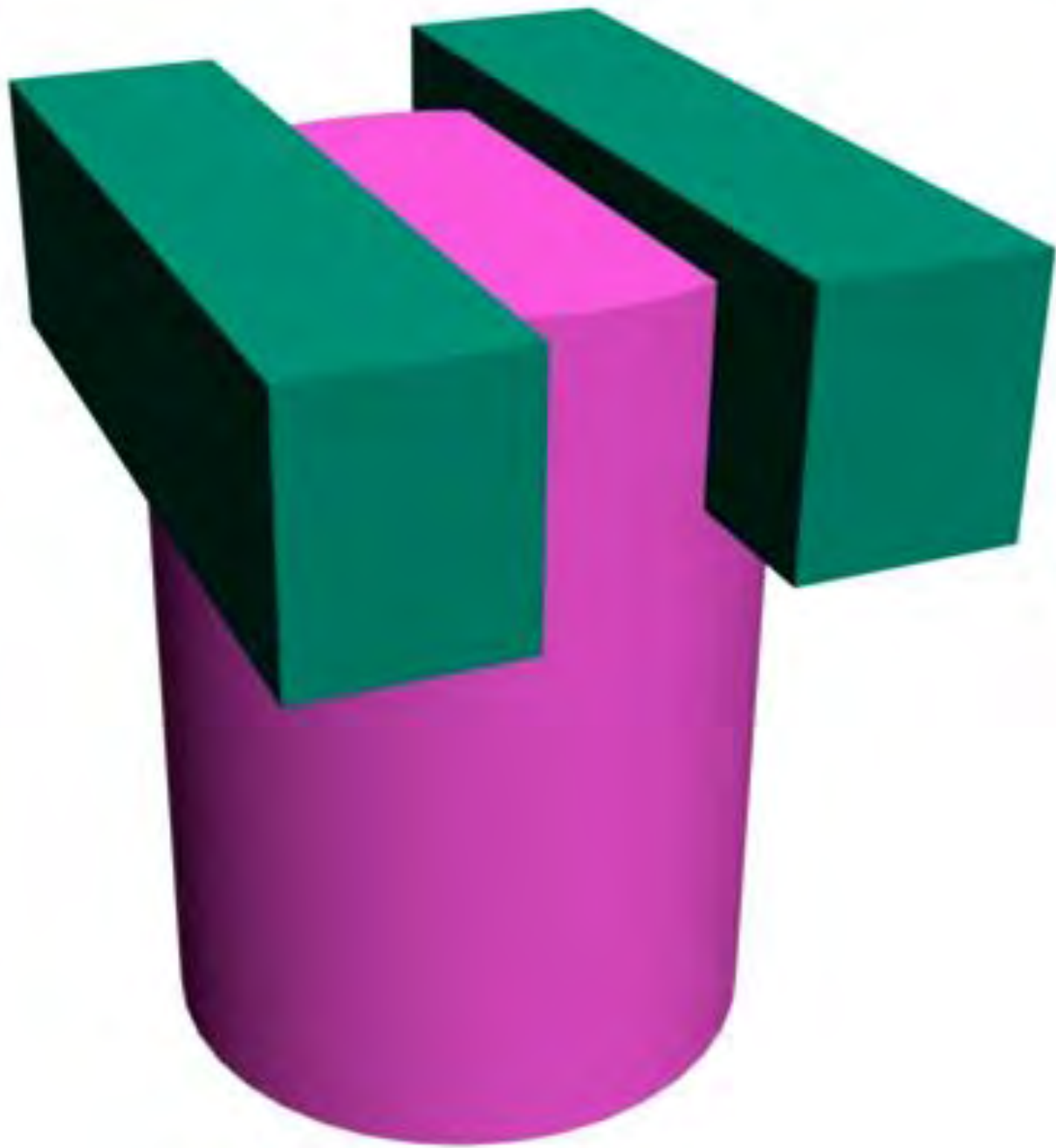
СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

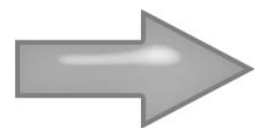
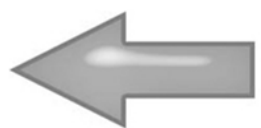


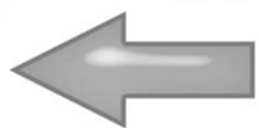


СОДЕРЖАНИЕ

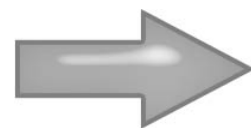


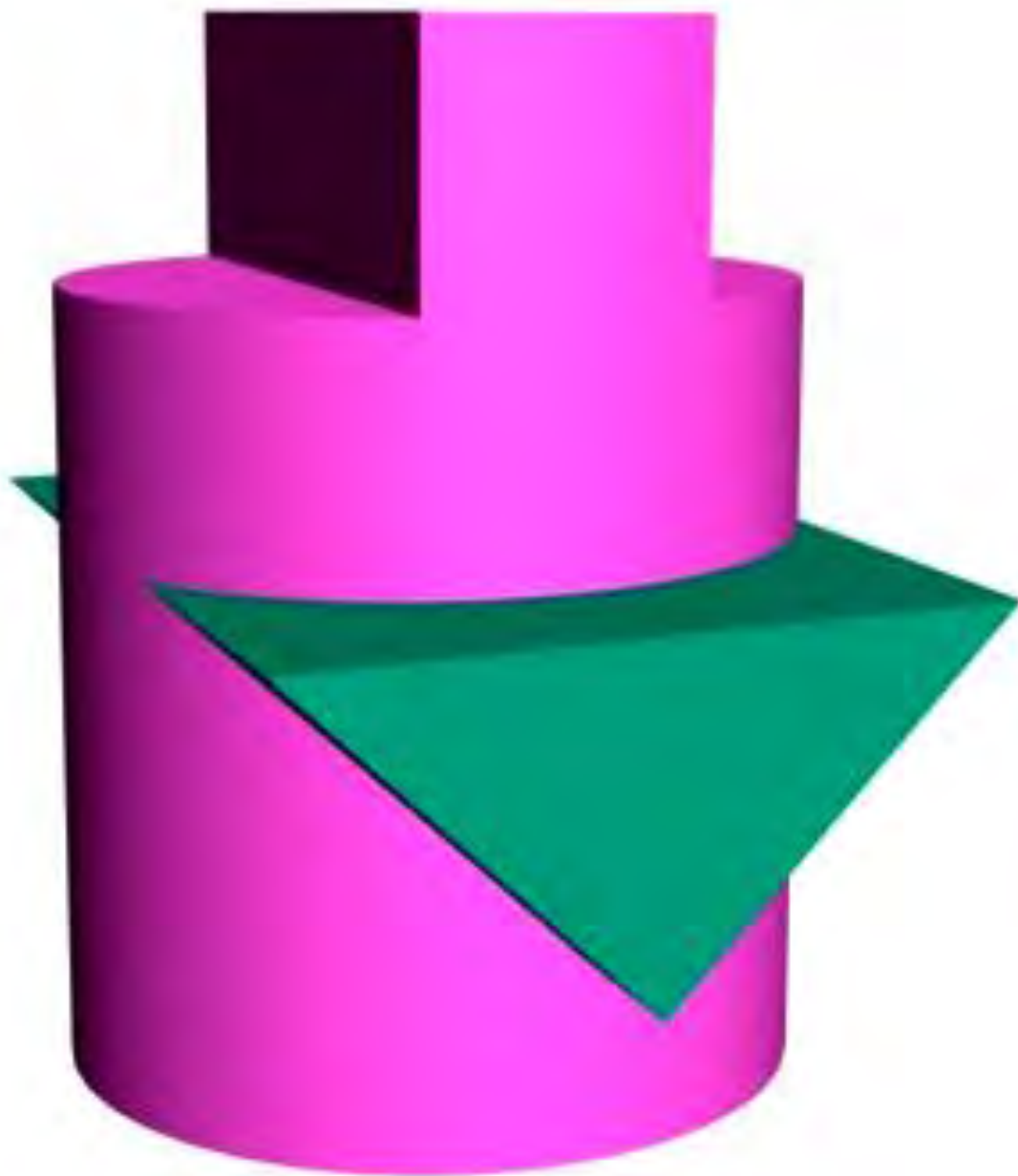
СОДЕРЖАНИЕ



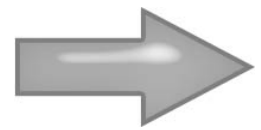
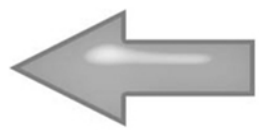


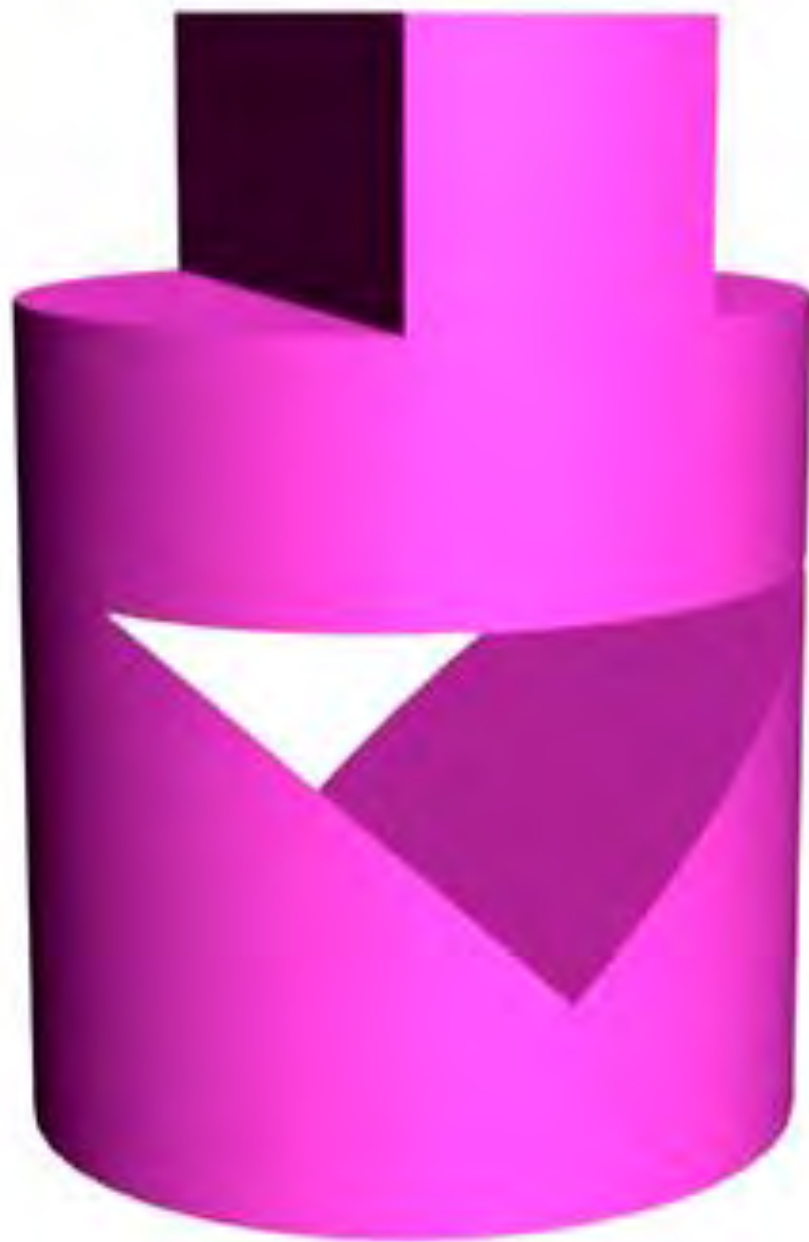
СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

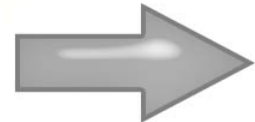
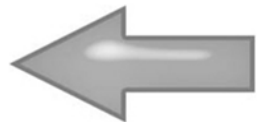


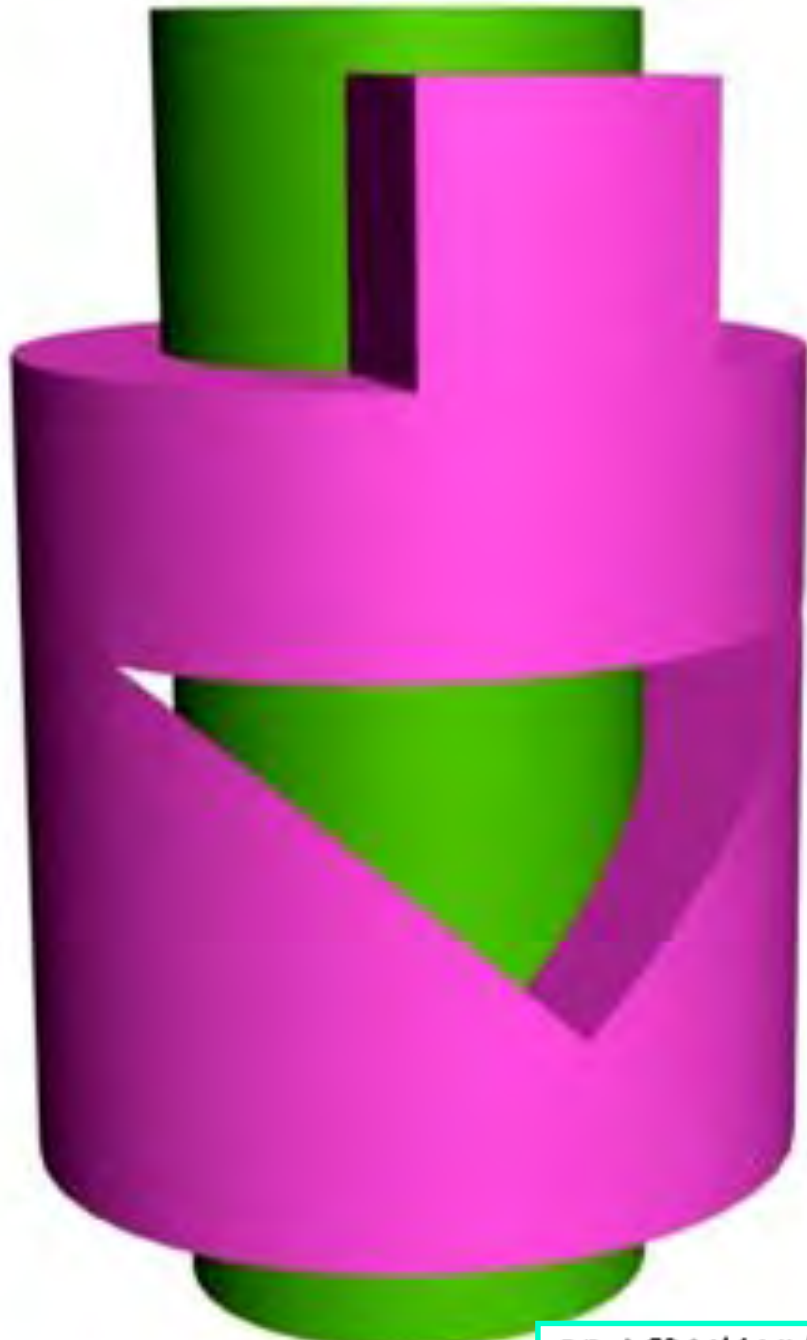


СОДЕРЖАНИЕ

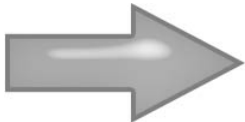
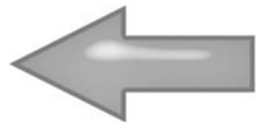


СОДЕРЖАНИЕ



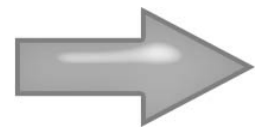
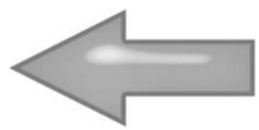


СОДЕРЖАНИЕ



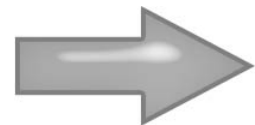
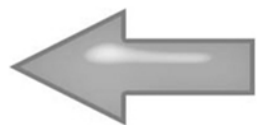


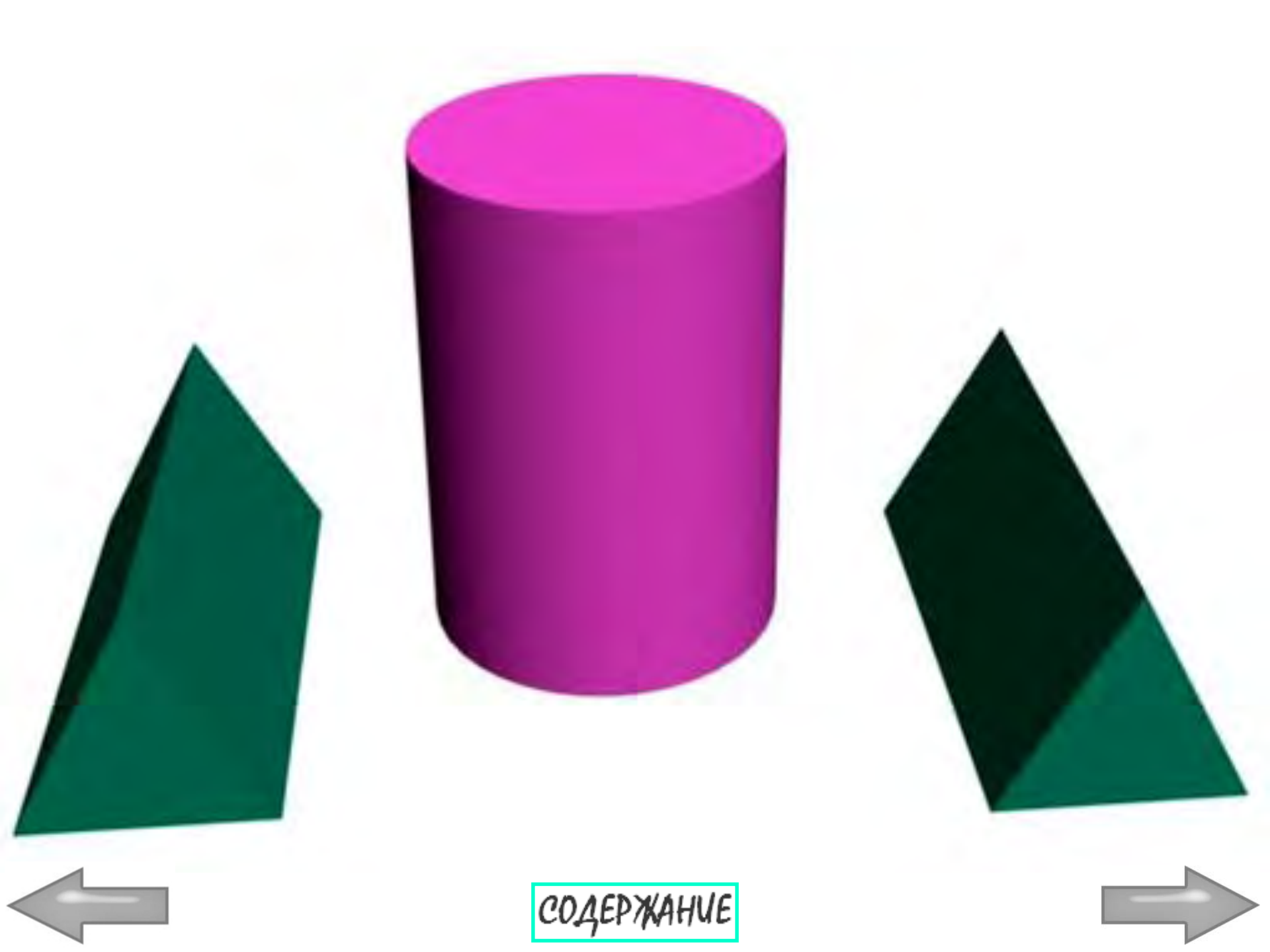
СОДЕРЖАНИЕ



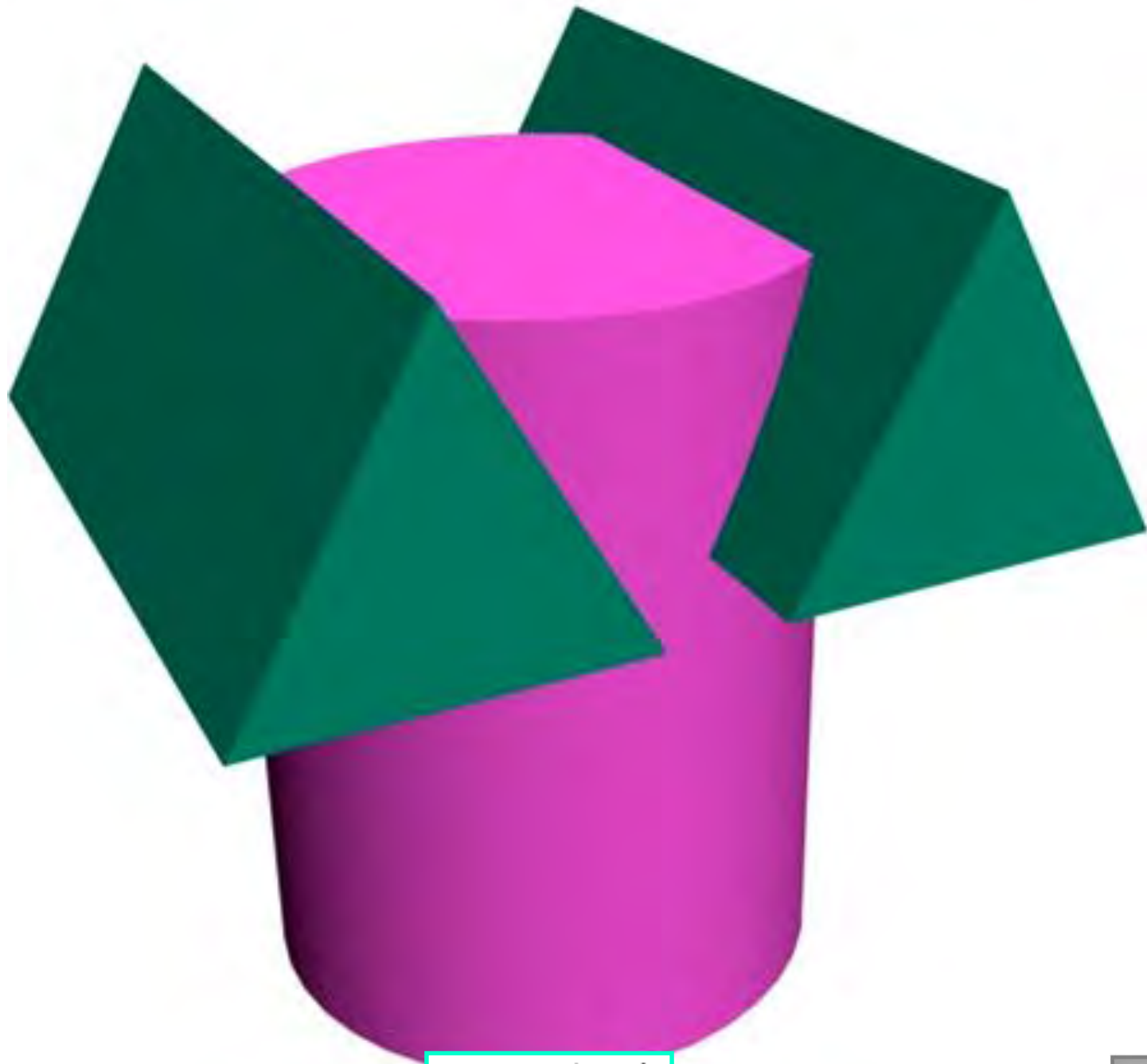


СОДЕРЖАНИЕ





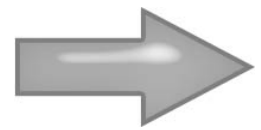
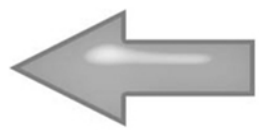
СОДЕРЖАНИЕ



СОДЕРЖАНИЕ

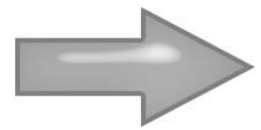
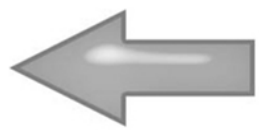


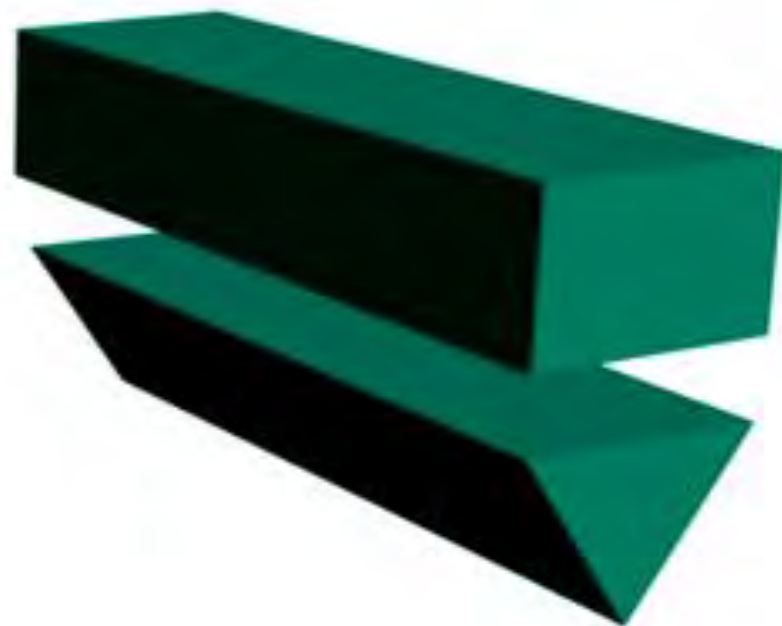
СОДЕРЖАНИЕ



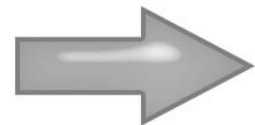
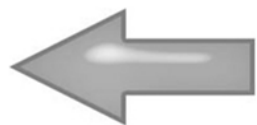


СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

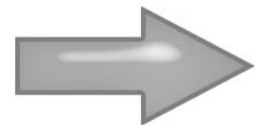
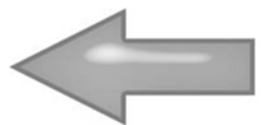




СОДЕРЖАНИЕ

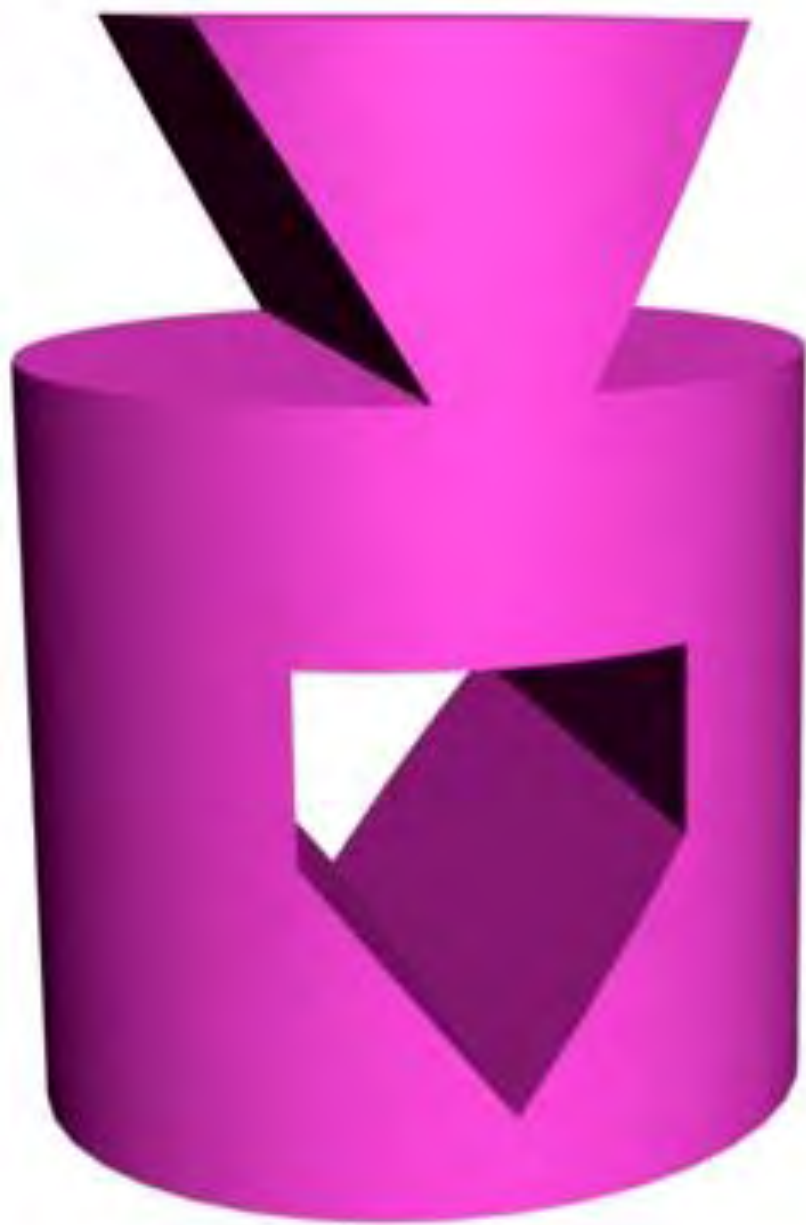


СОДЕРЖАНИЕ

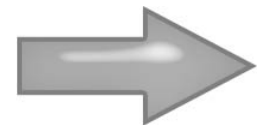
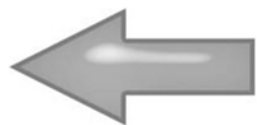


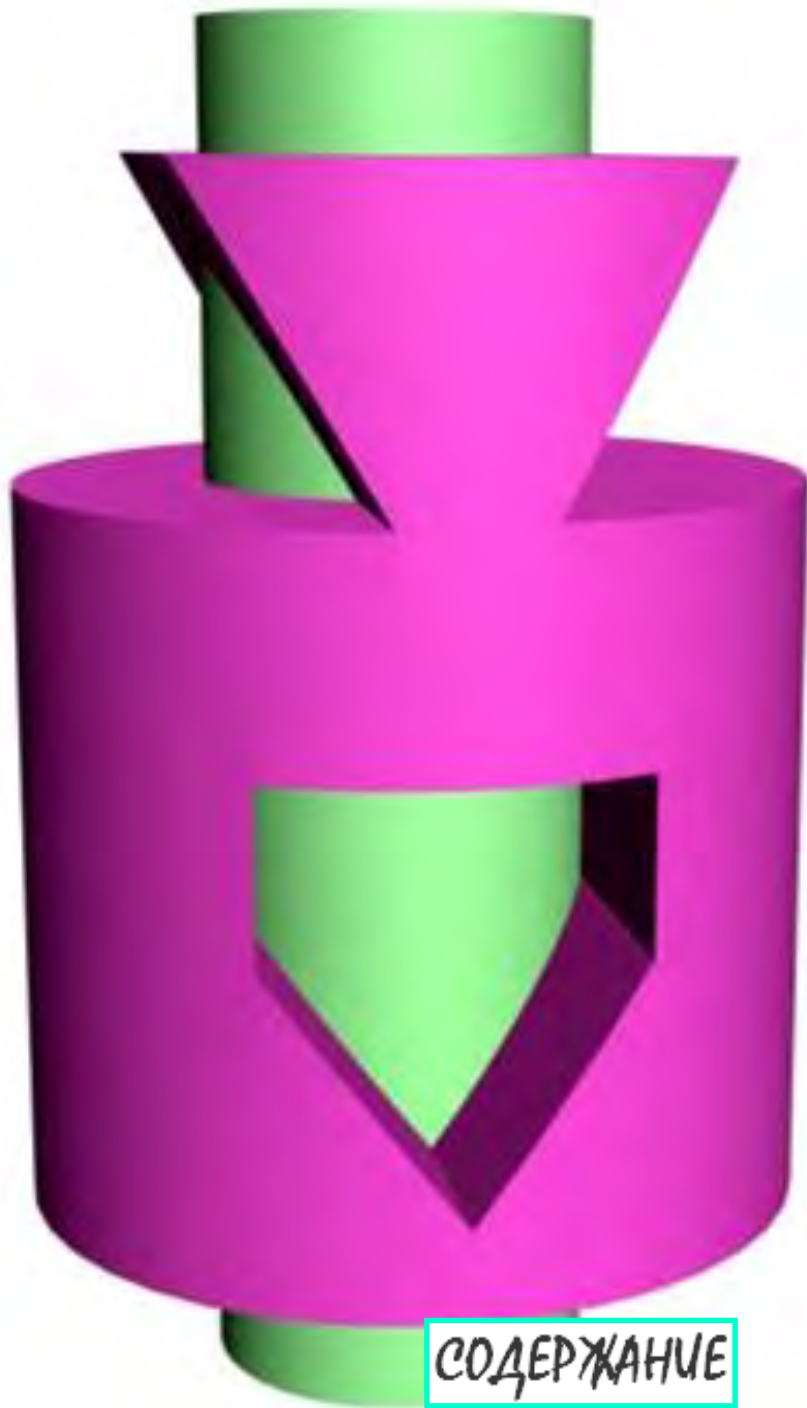


СОДЕРЖАНИЕ



СОДЕРЖАНИЕ

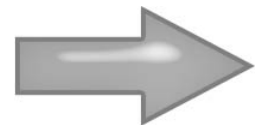
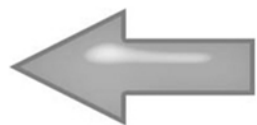




СОДЕРЖАНИЕ



СОДЕРЖАНИЕ

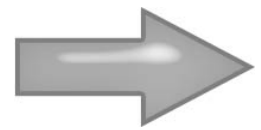
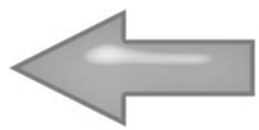




СОДЕРЖАНИЕ

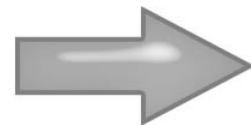
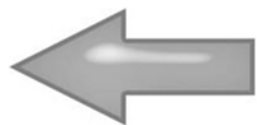


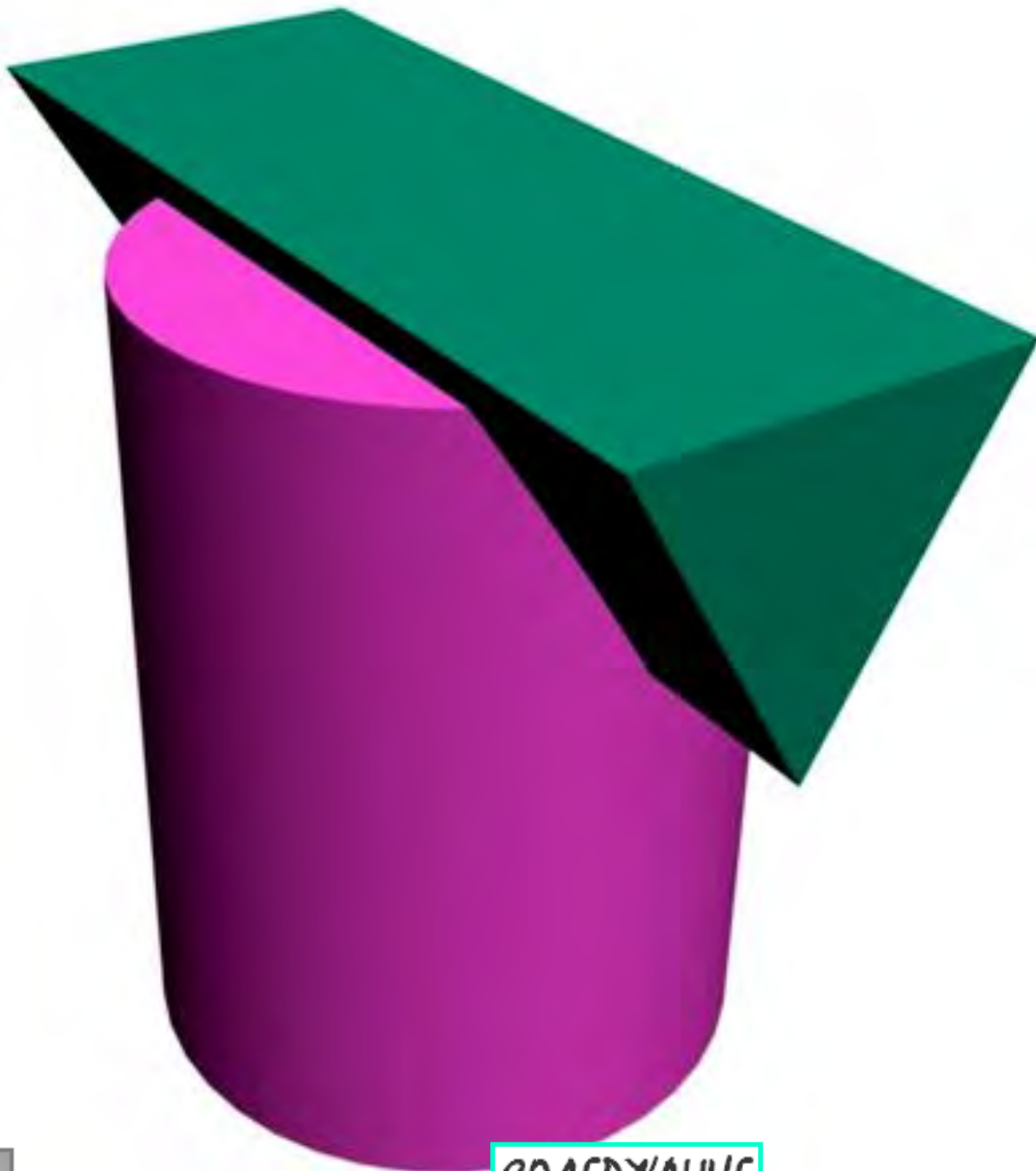
СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

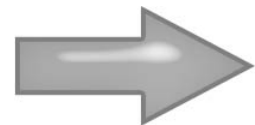
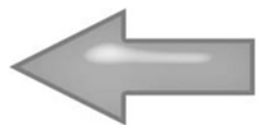




СОДЕРЖАНИЕ

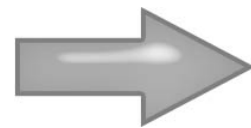
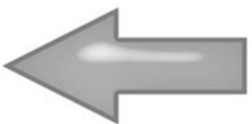


СОДЕРЖАНИЕ



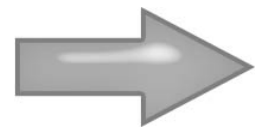
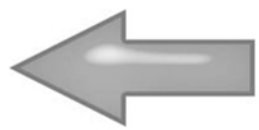


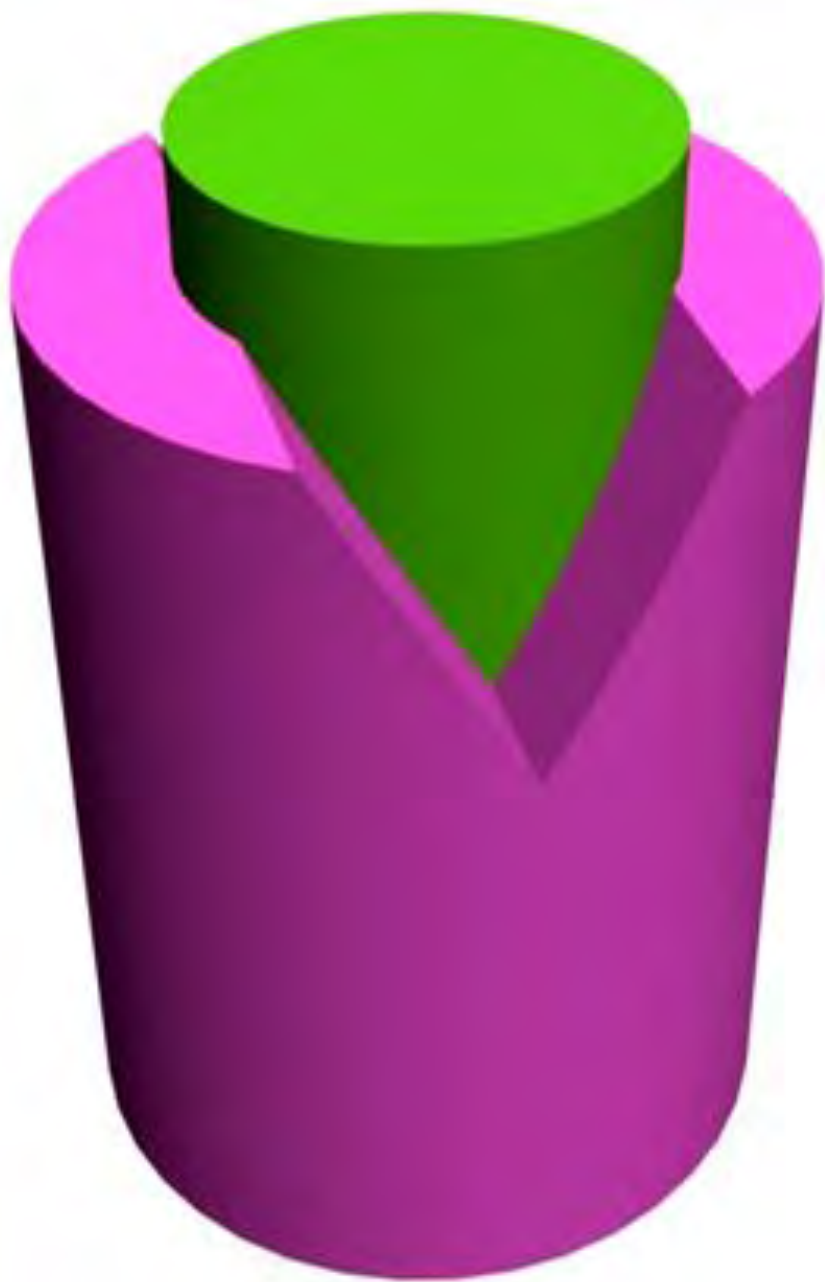
СОДЕРЖАНИЕ



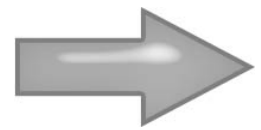
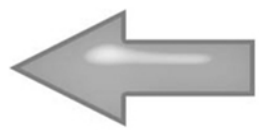


СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

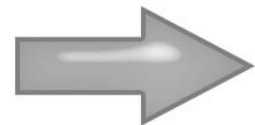
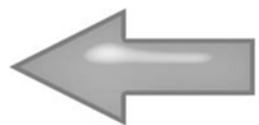


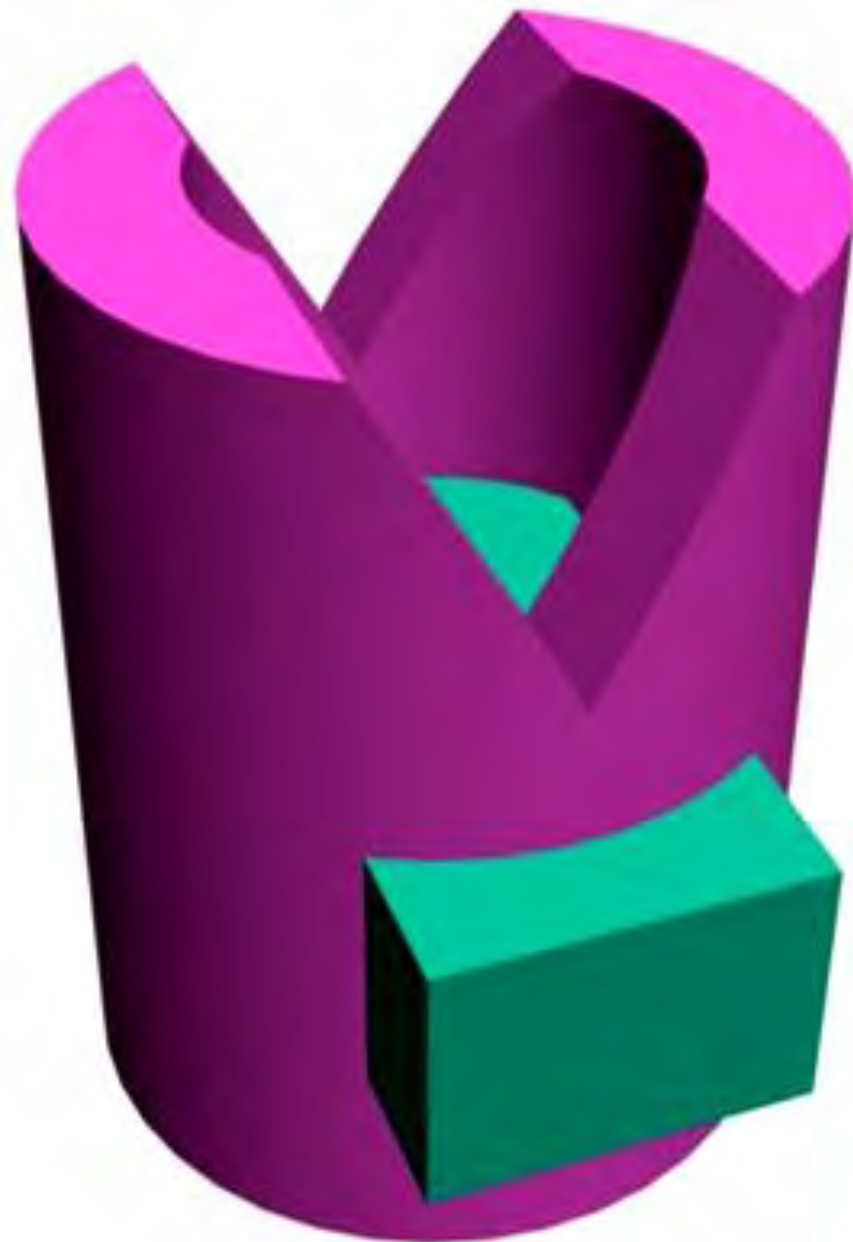


СОДЕРЖАНИЕ



СОДЕРЖАНИЕ

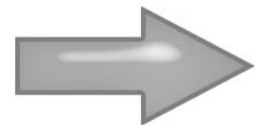
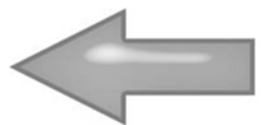




СОДЕРЖАНИЕ

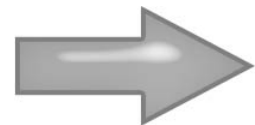
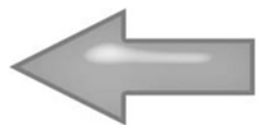


СОДЕРЖАНИЕ

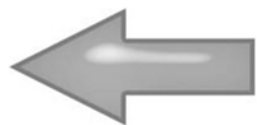
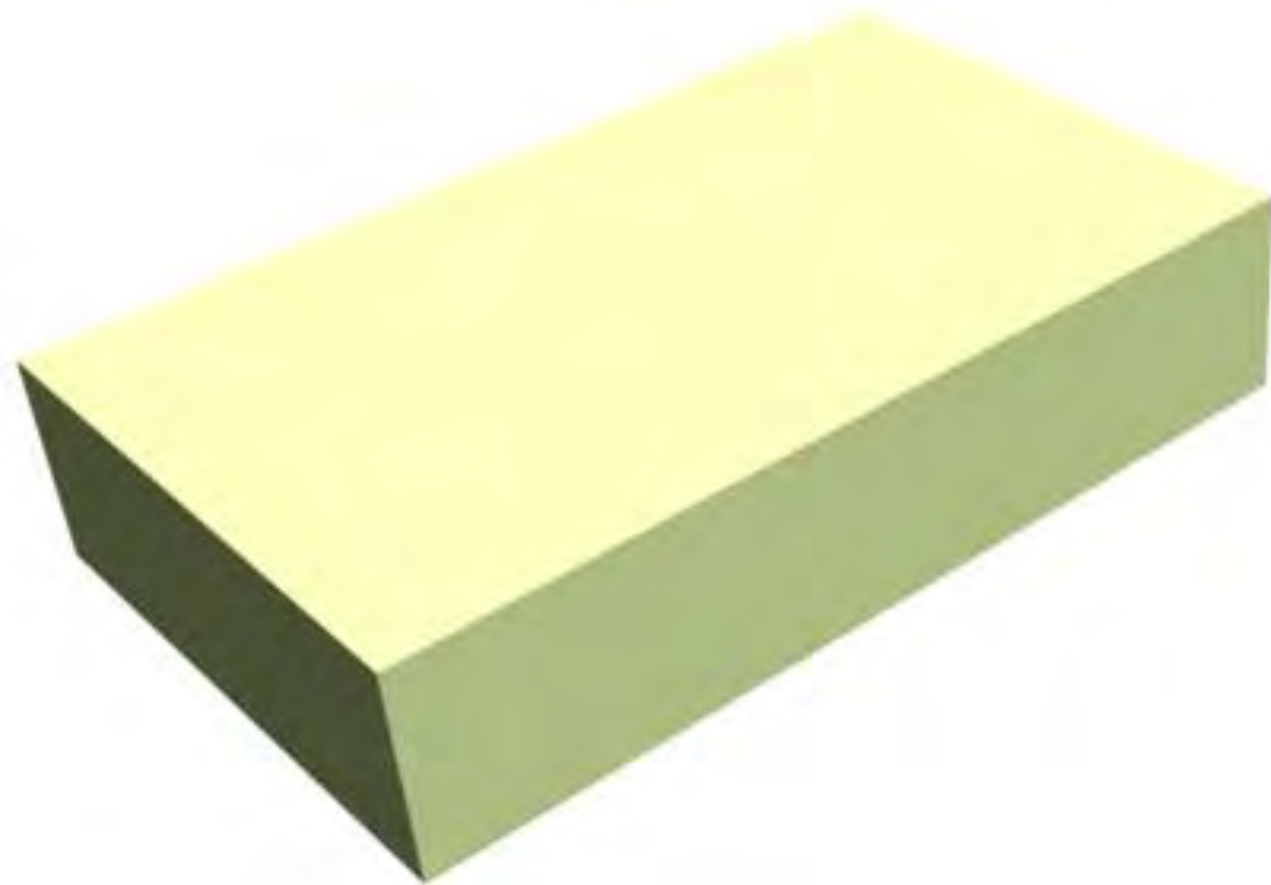




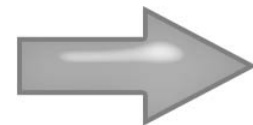
СОДЕРЖАНИЕ

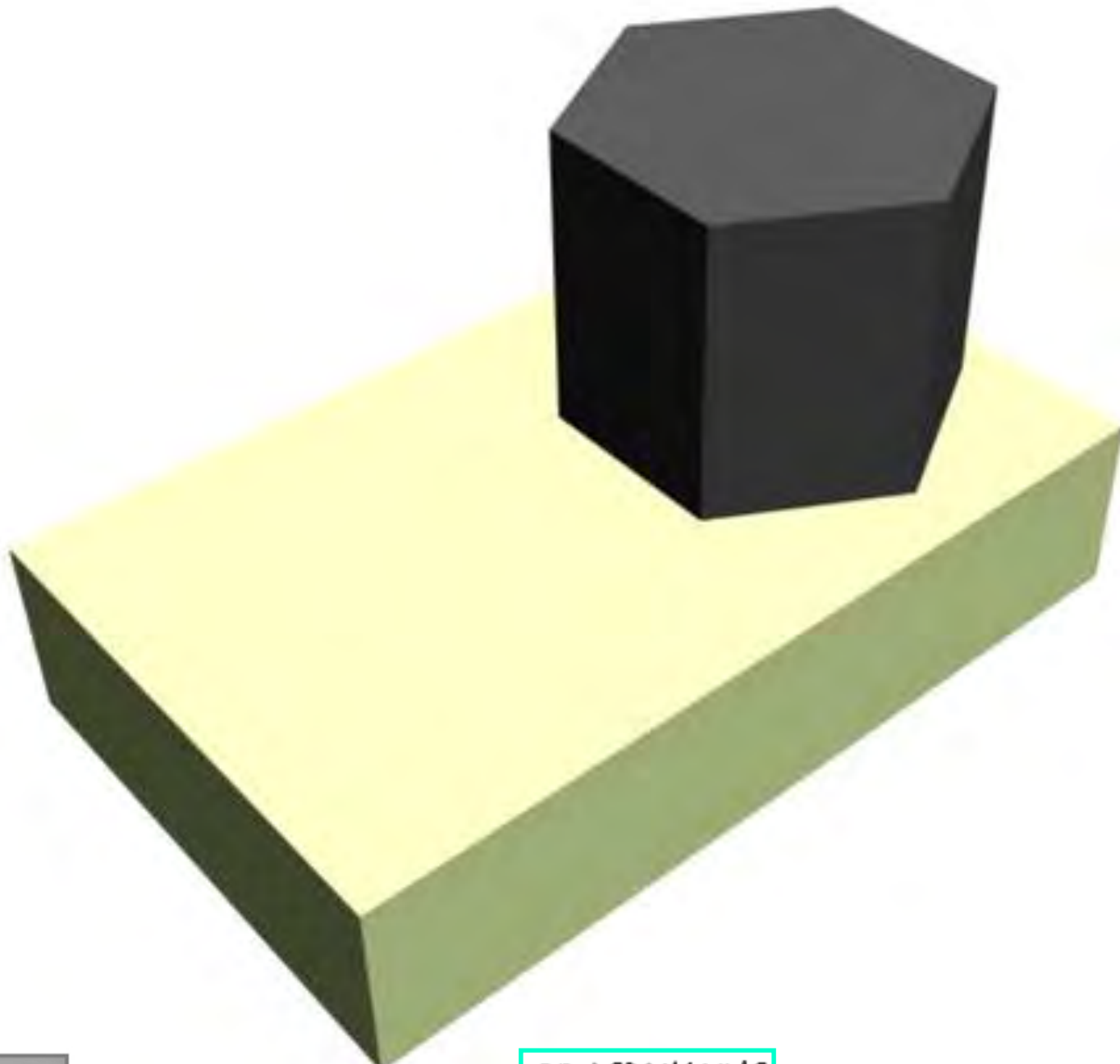


Задача № 3. МОДЕЛЬ СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

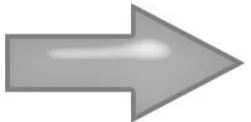
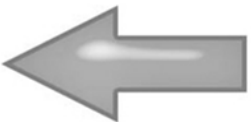


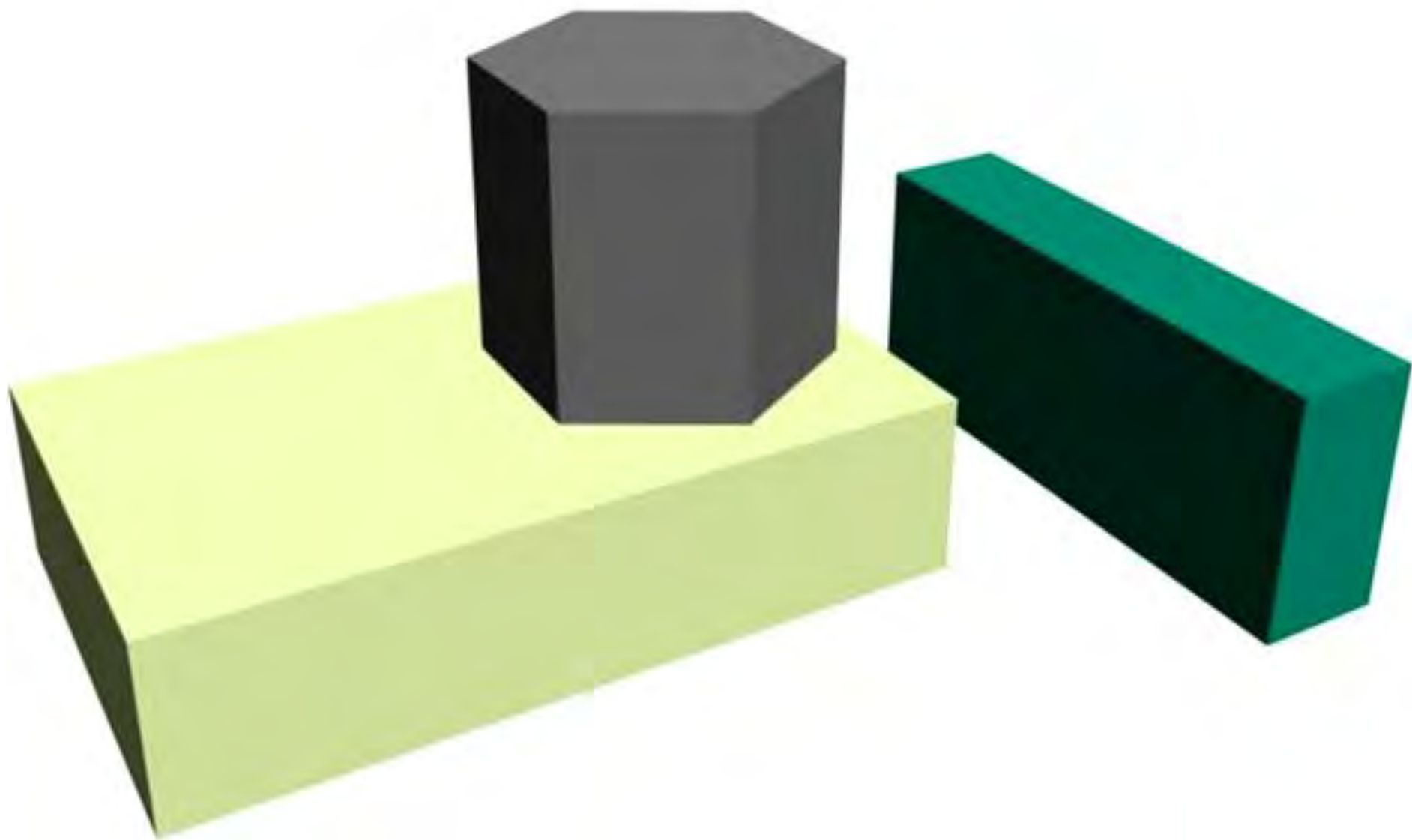
СОДЕРЖАНИЕ



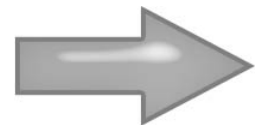
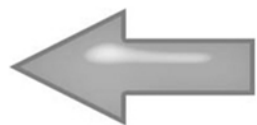


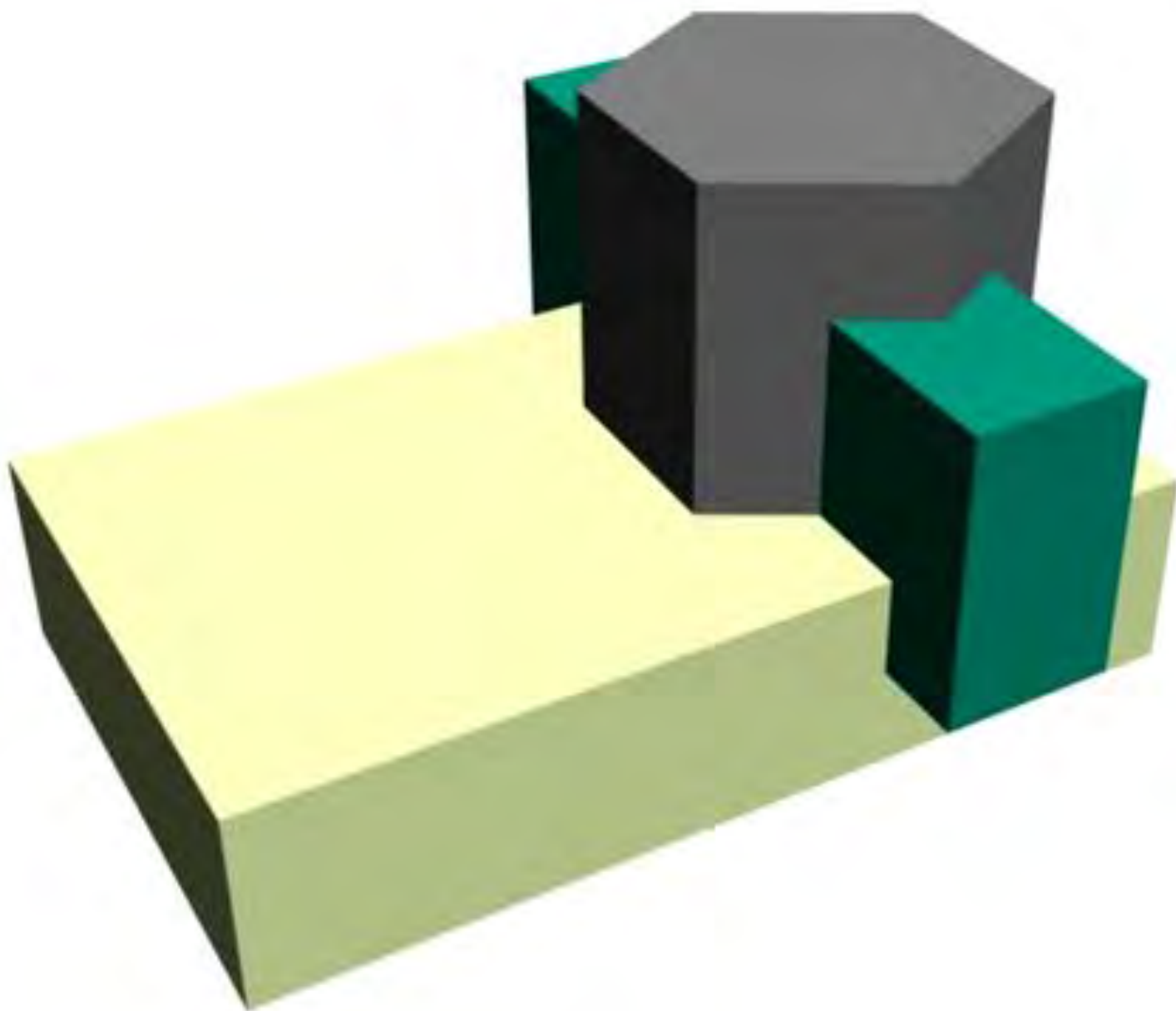
СОДЕРЖАНИЕ



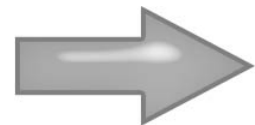
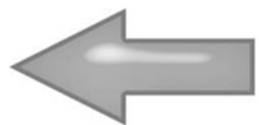


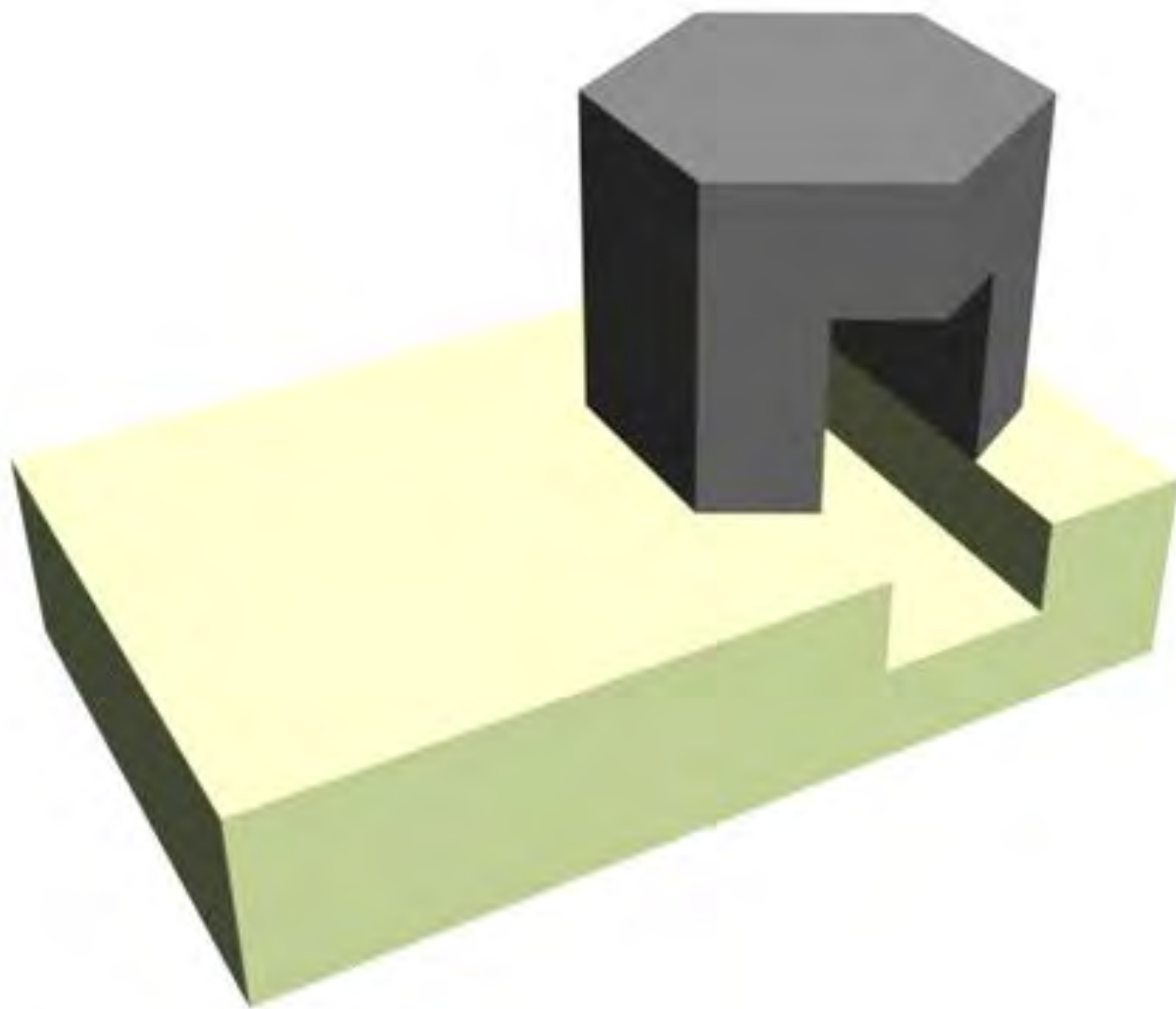
СОДЕРЖАНИЕ



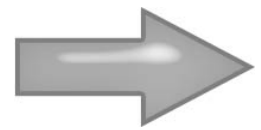
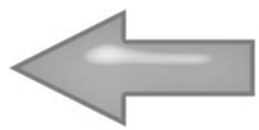


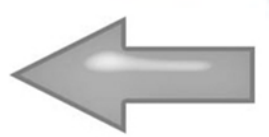
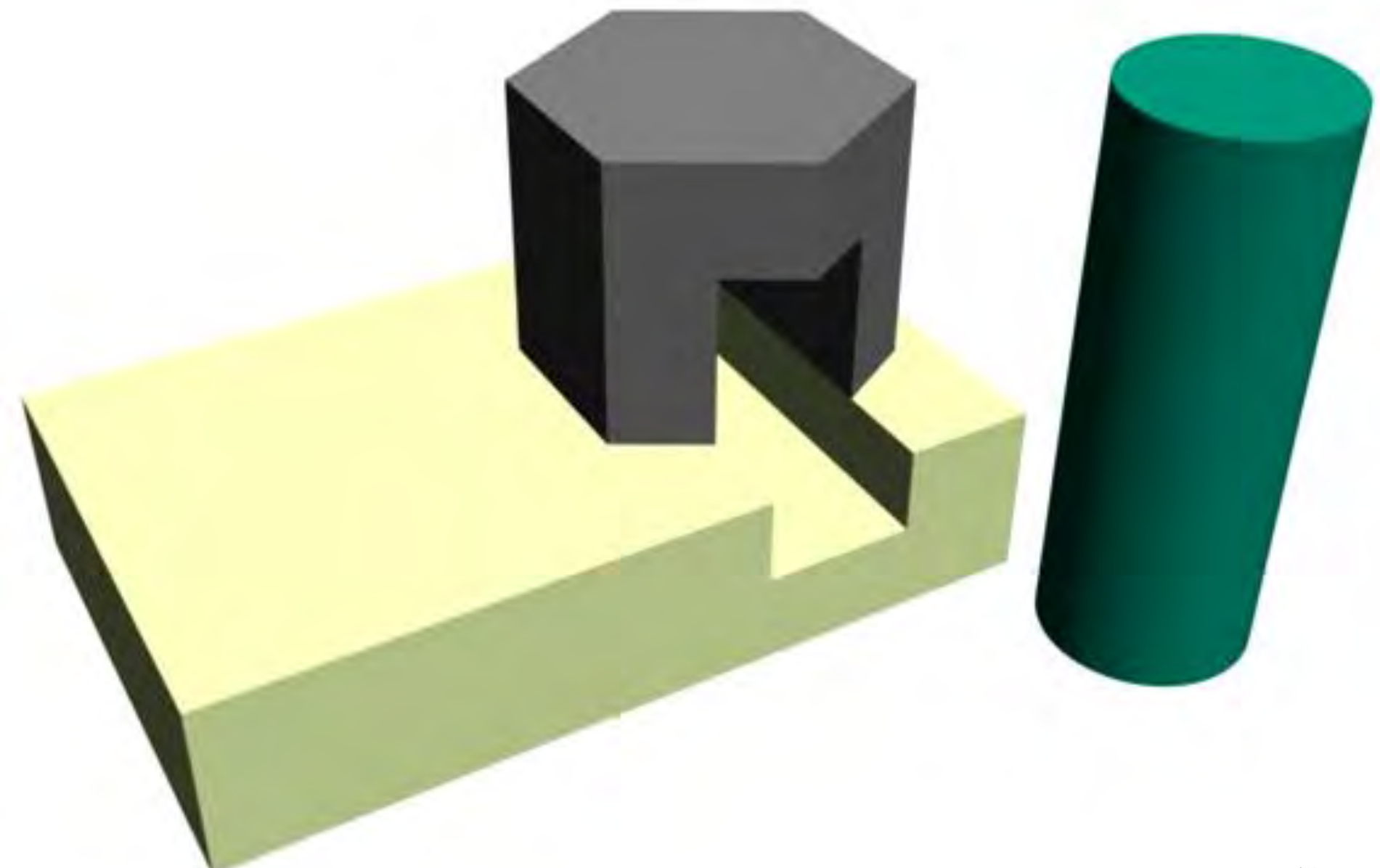
СОДЕРЖАНИЕ



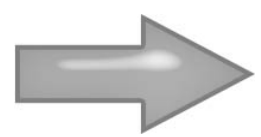


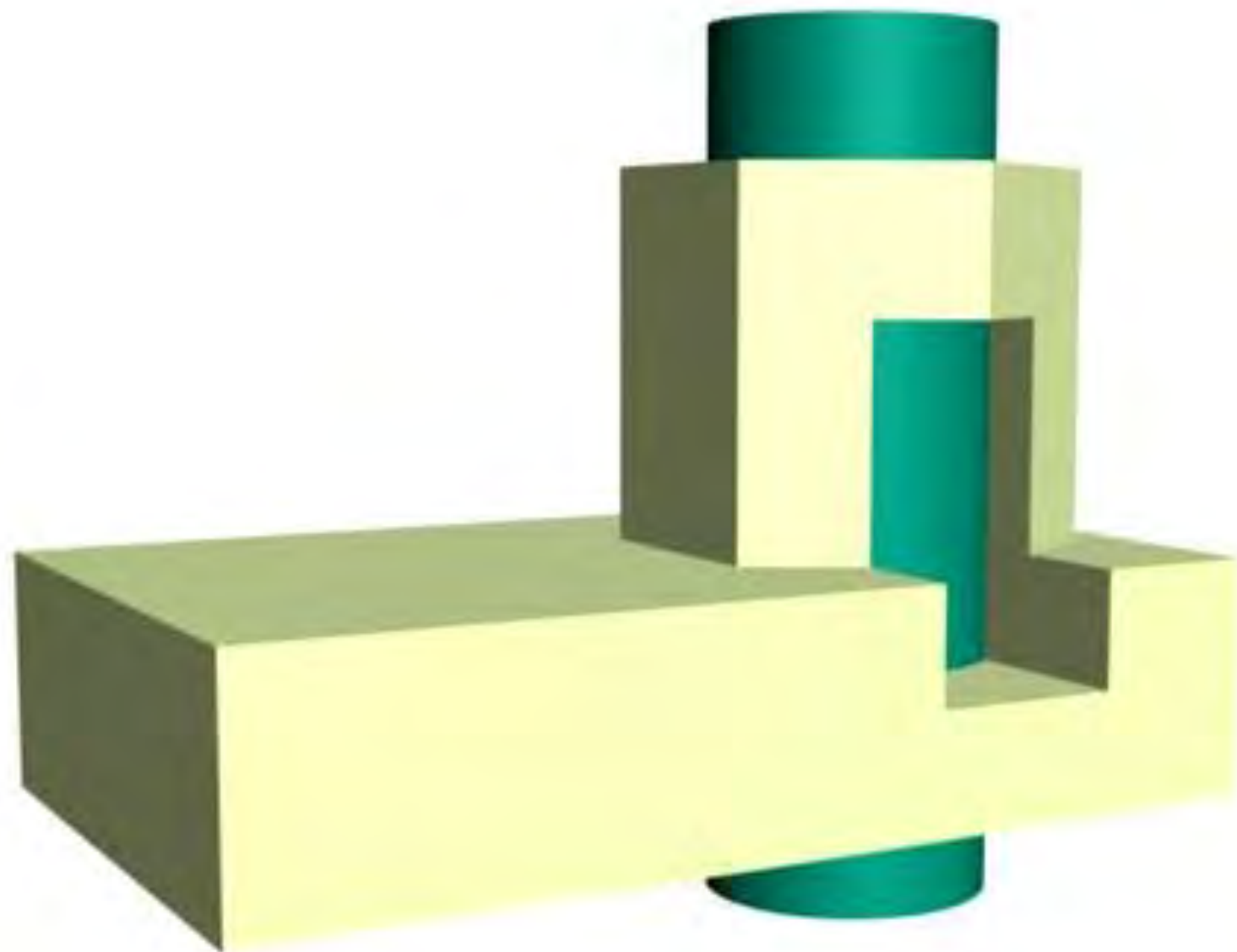
СОДЕРЖАНИЕ



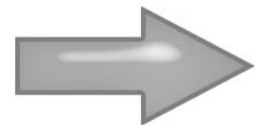
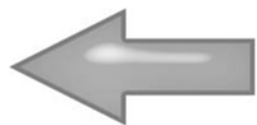


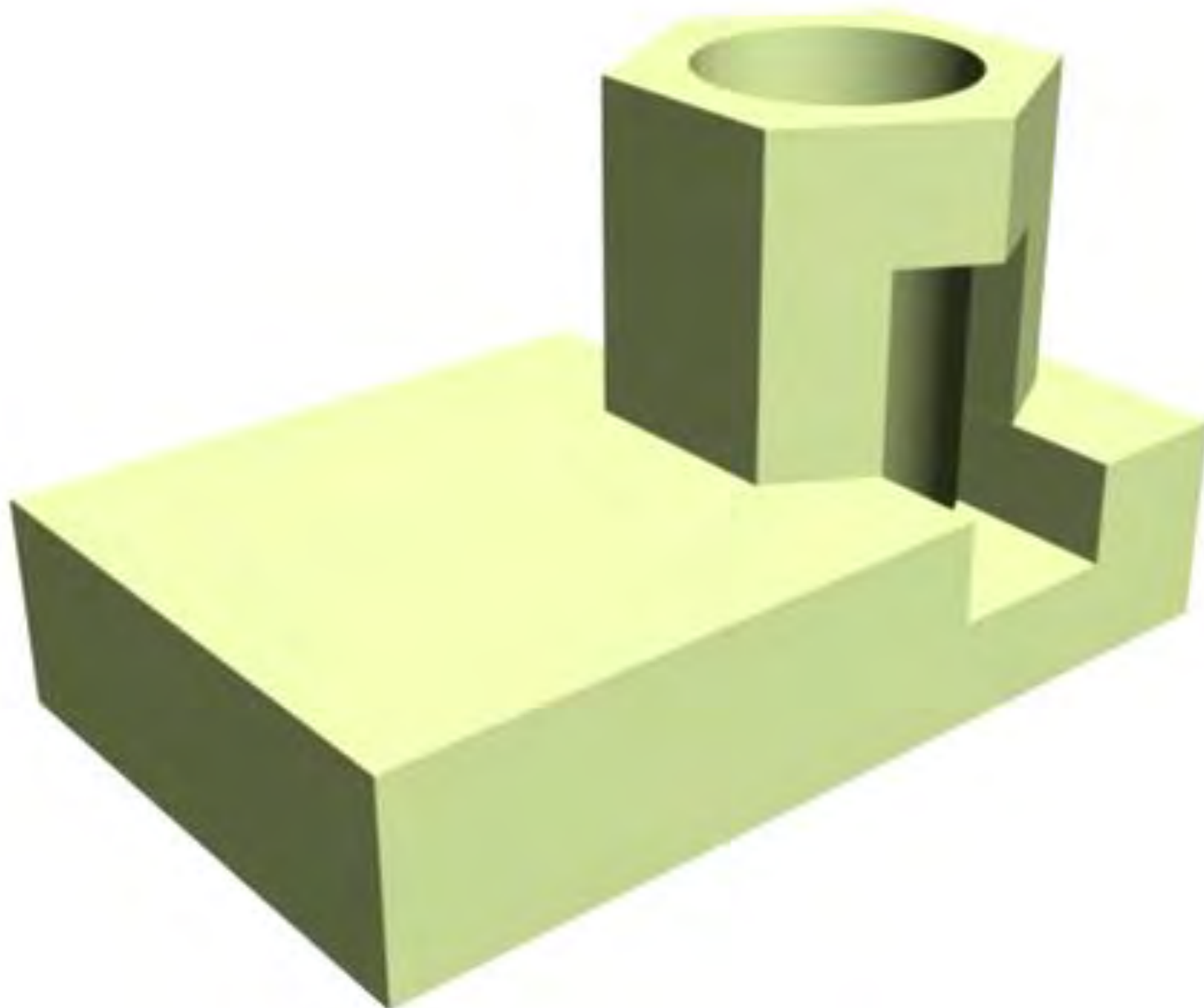
СОДЕРЖАНИЕ



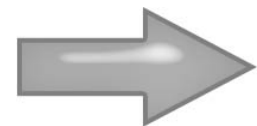
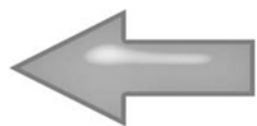


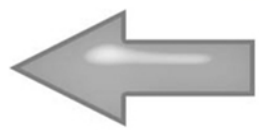
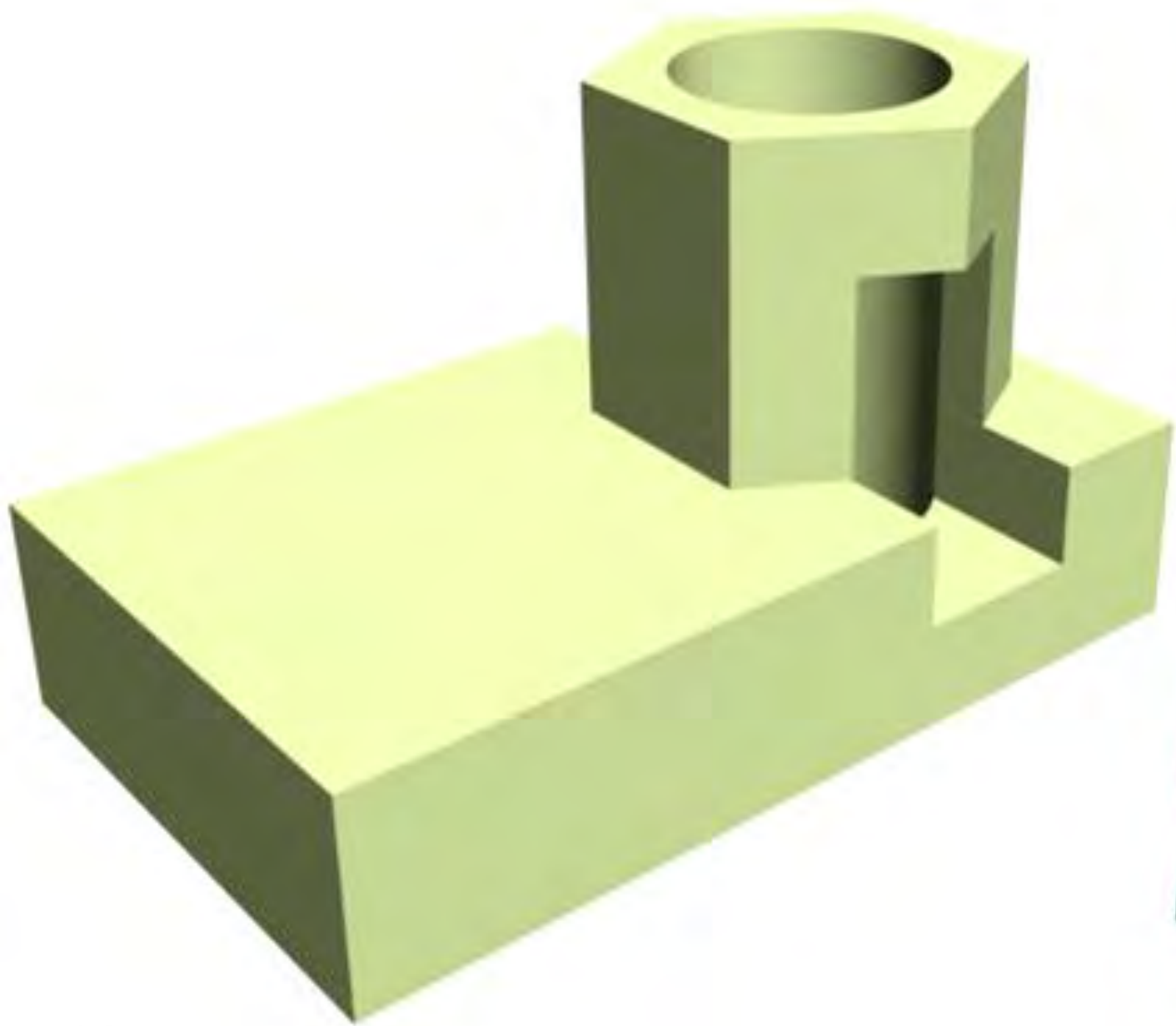
СОДЕРЖАНИЕ



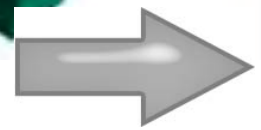


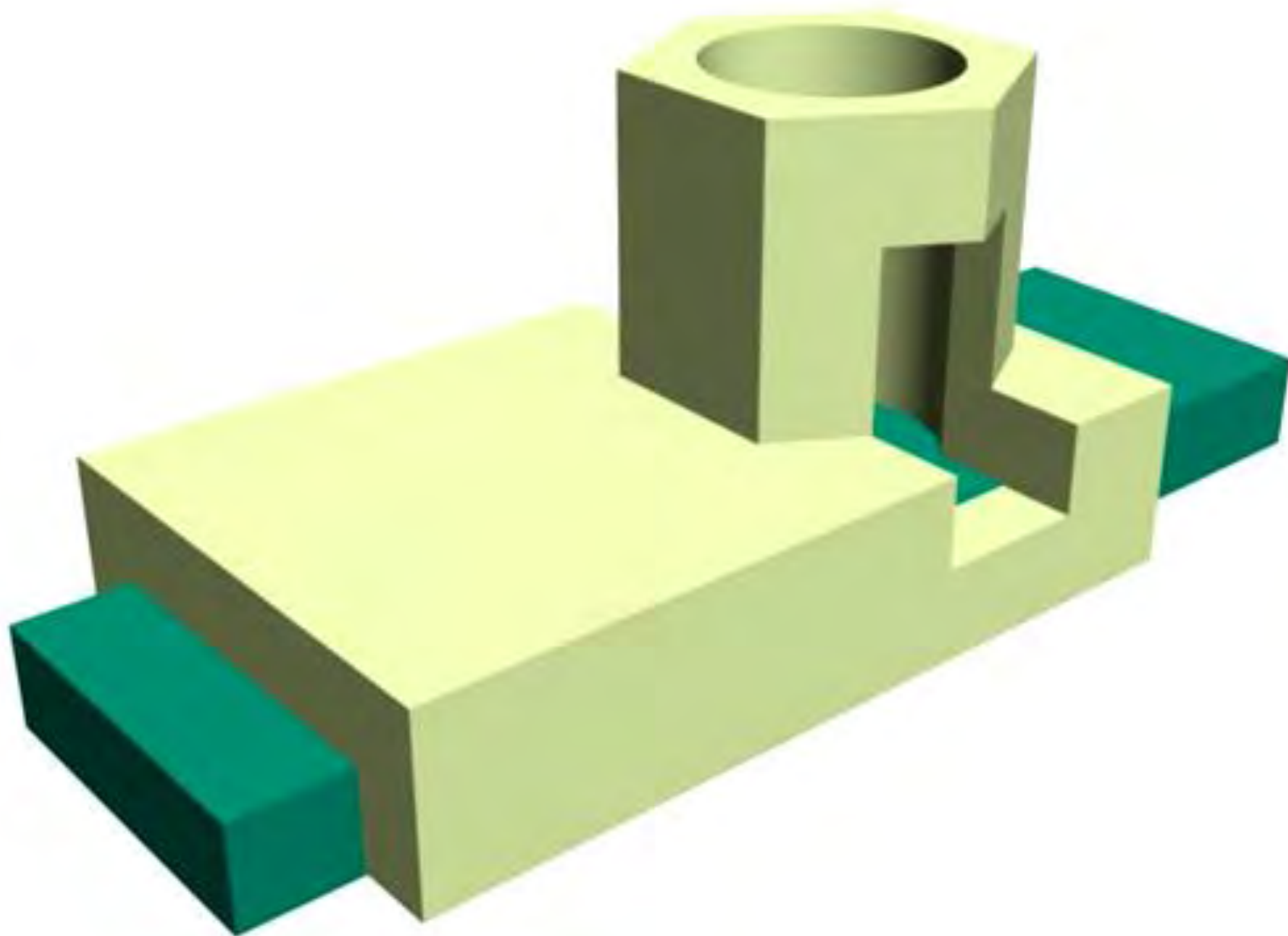
СОДЕРЖАНИЕ



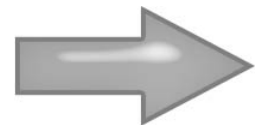
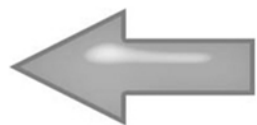


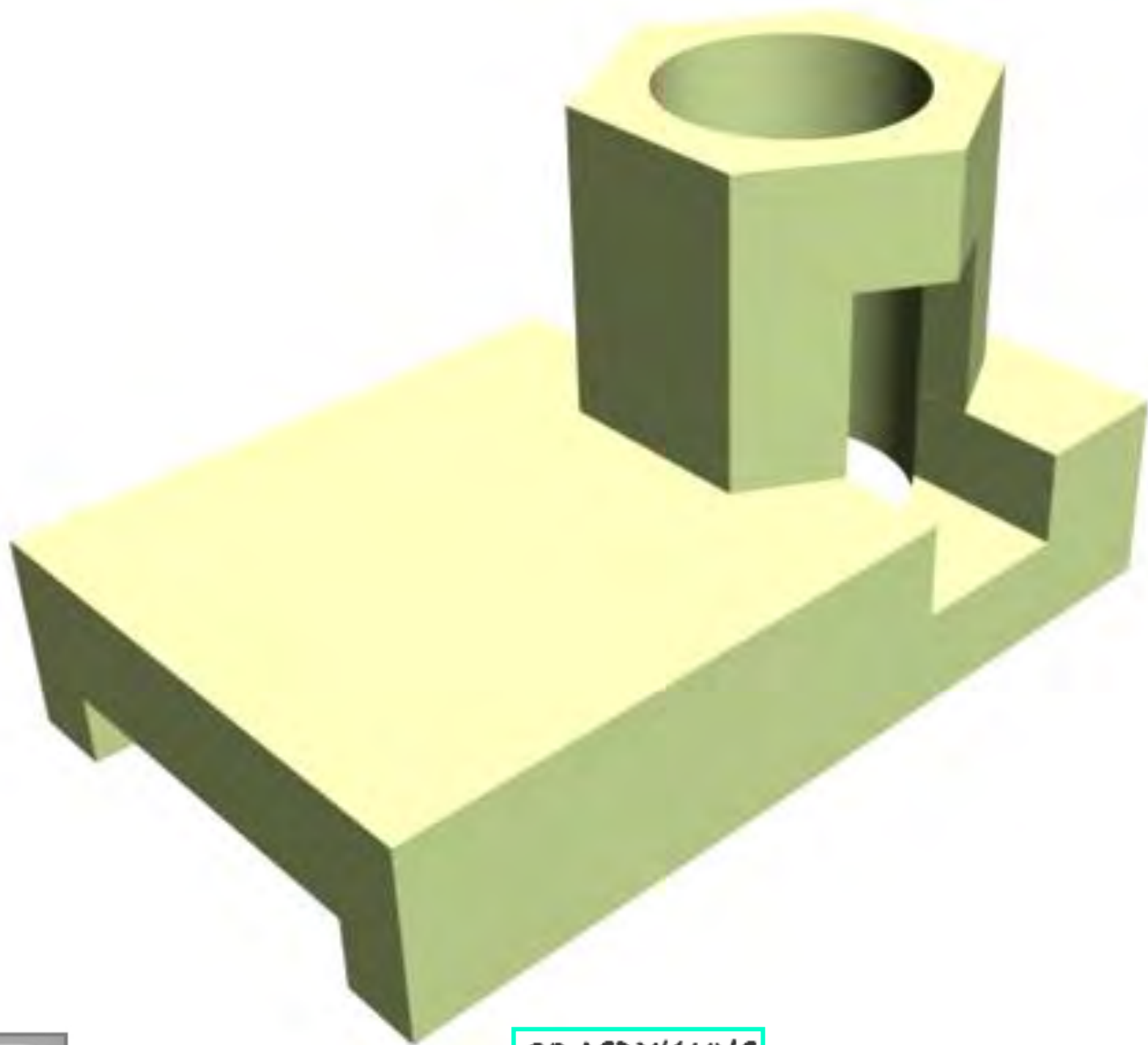
СОДЕРЖАНИЕ



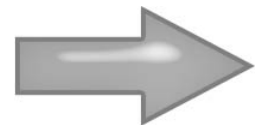
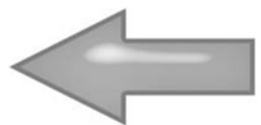


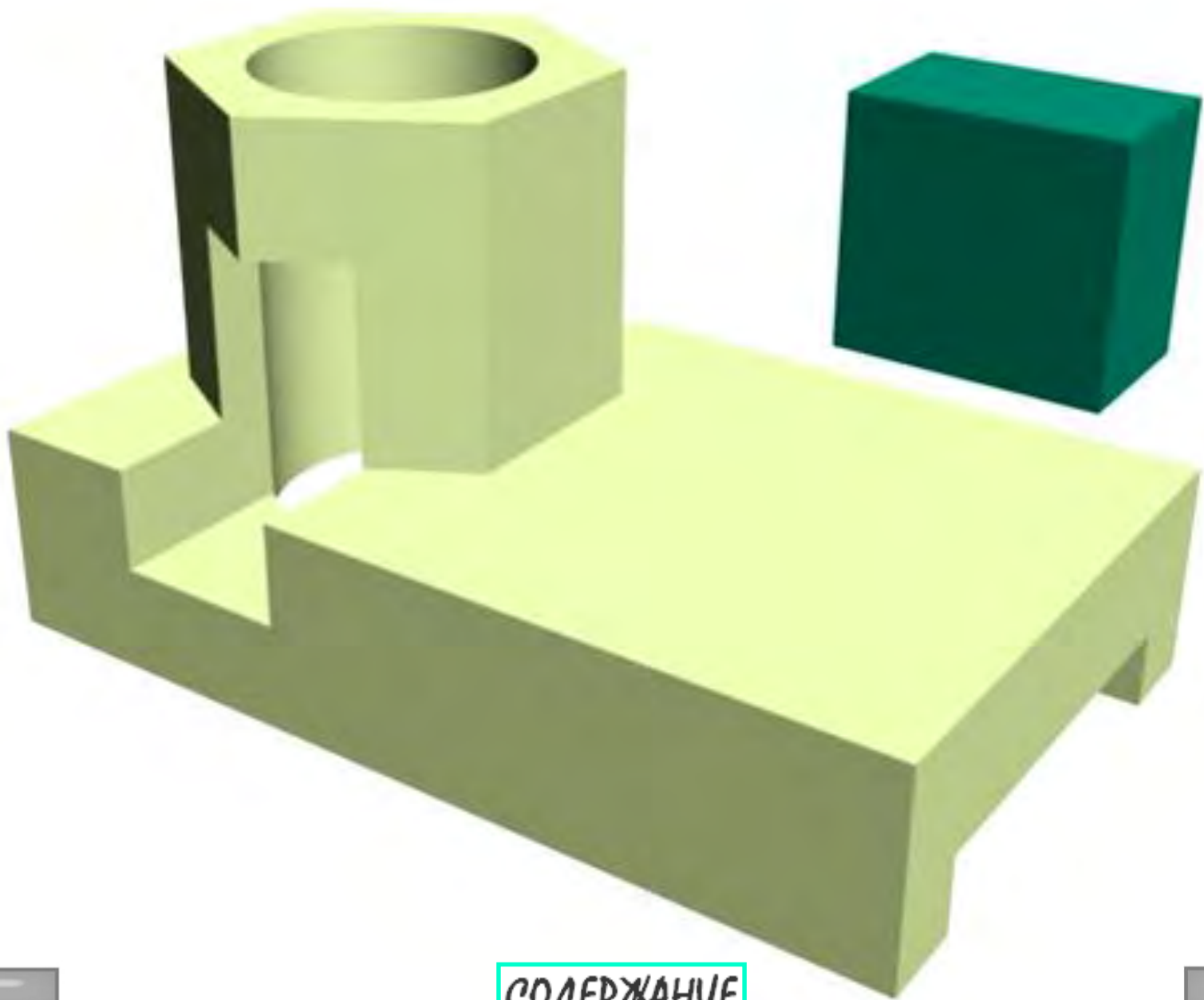
СОДЕРЖАНИЕ



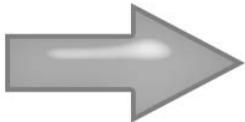


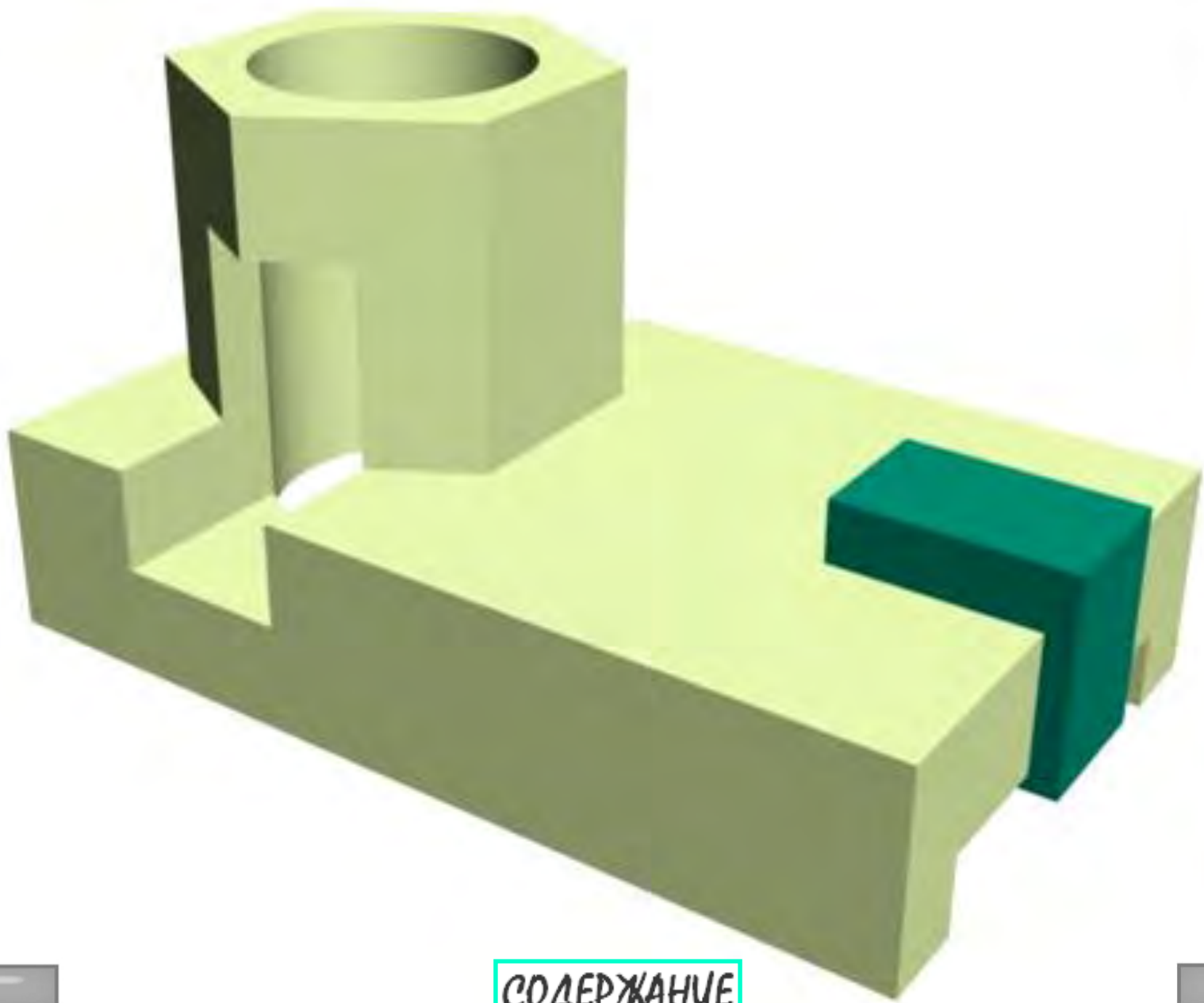
СОДЕРЖАНИЕ



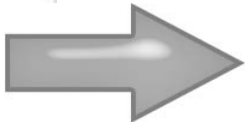
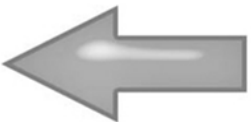


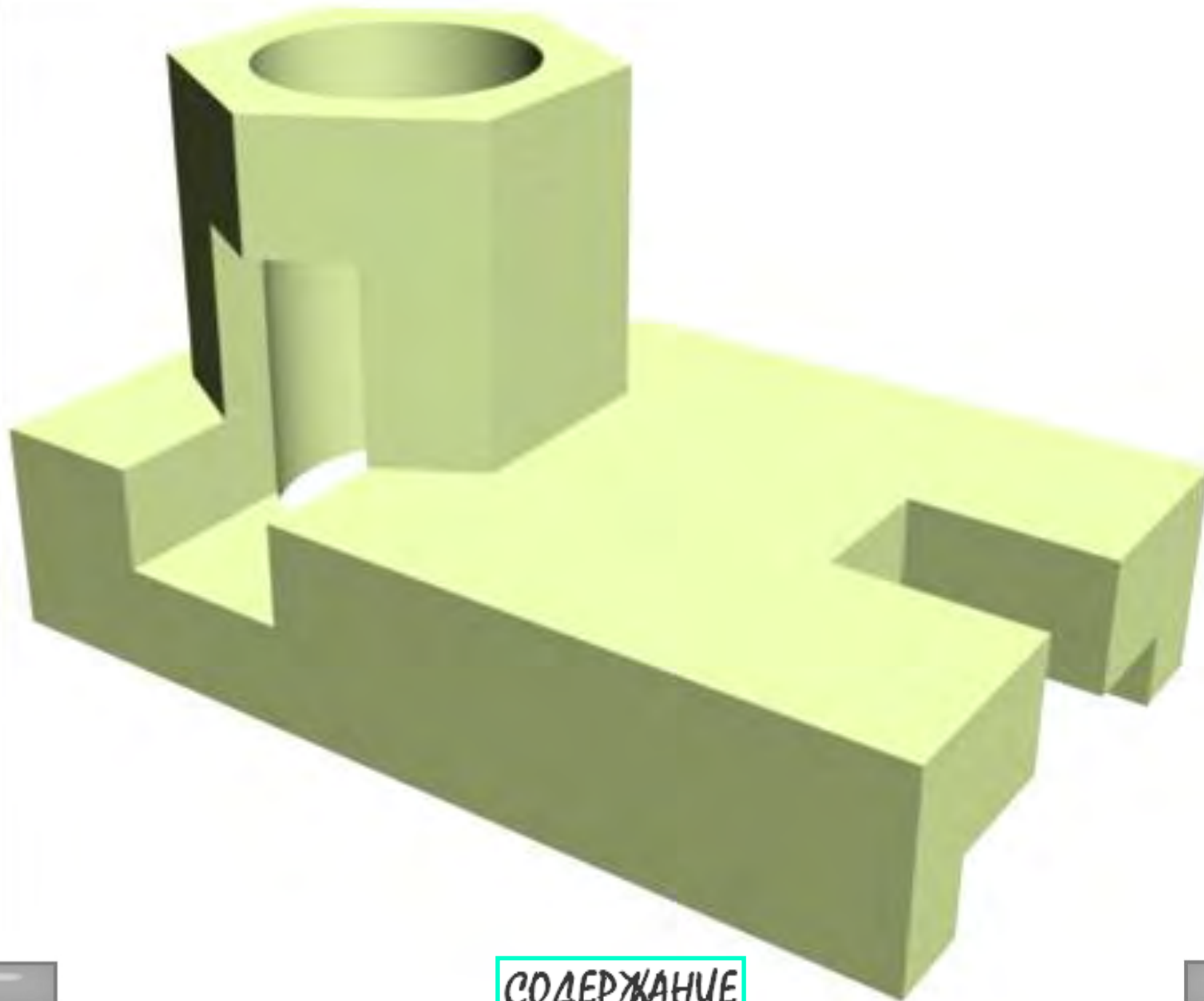
СОДЕРЖАНИЕ



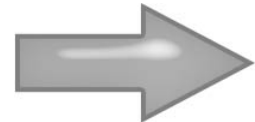
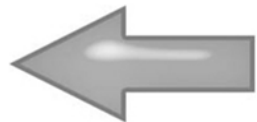


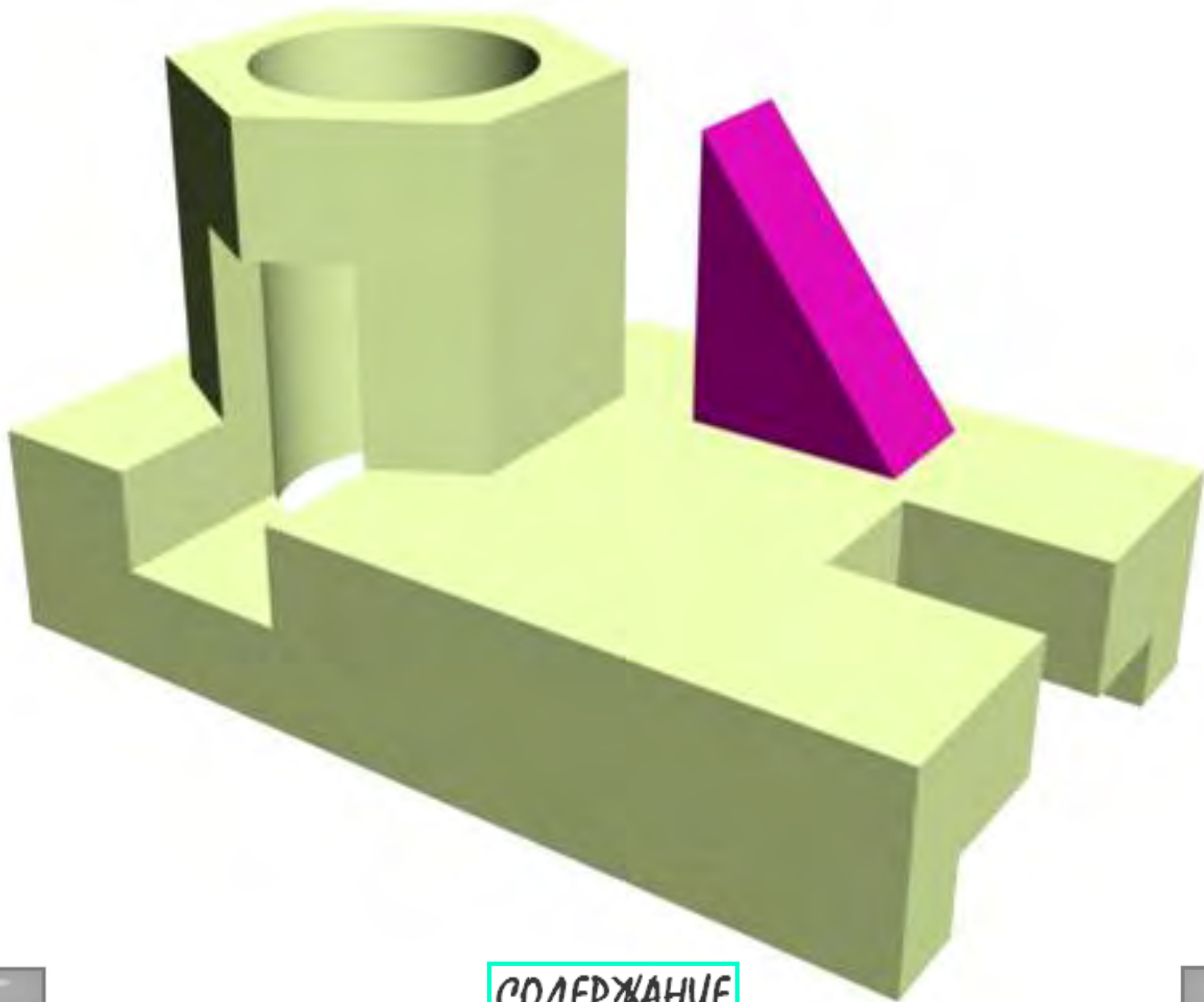
СОДЕРЖАНИЕ



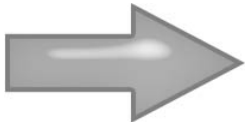
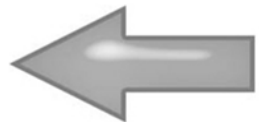


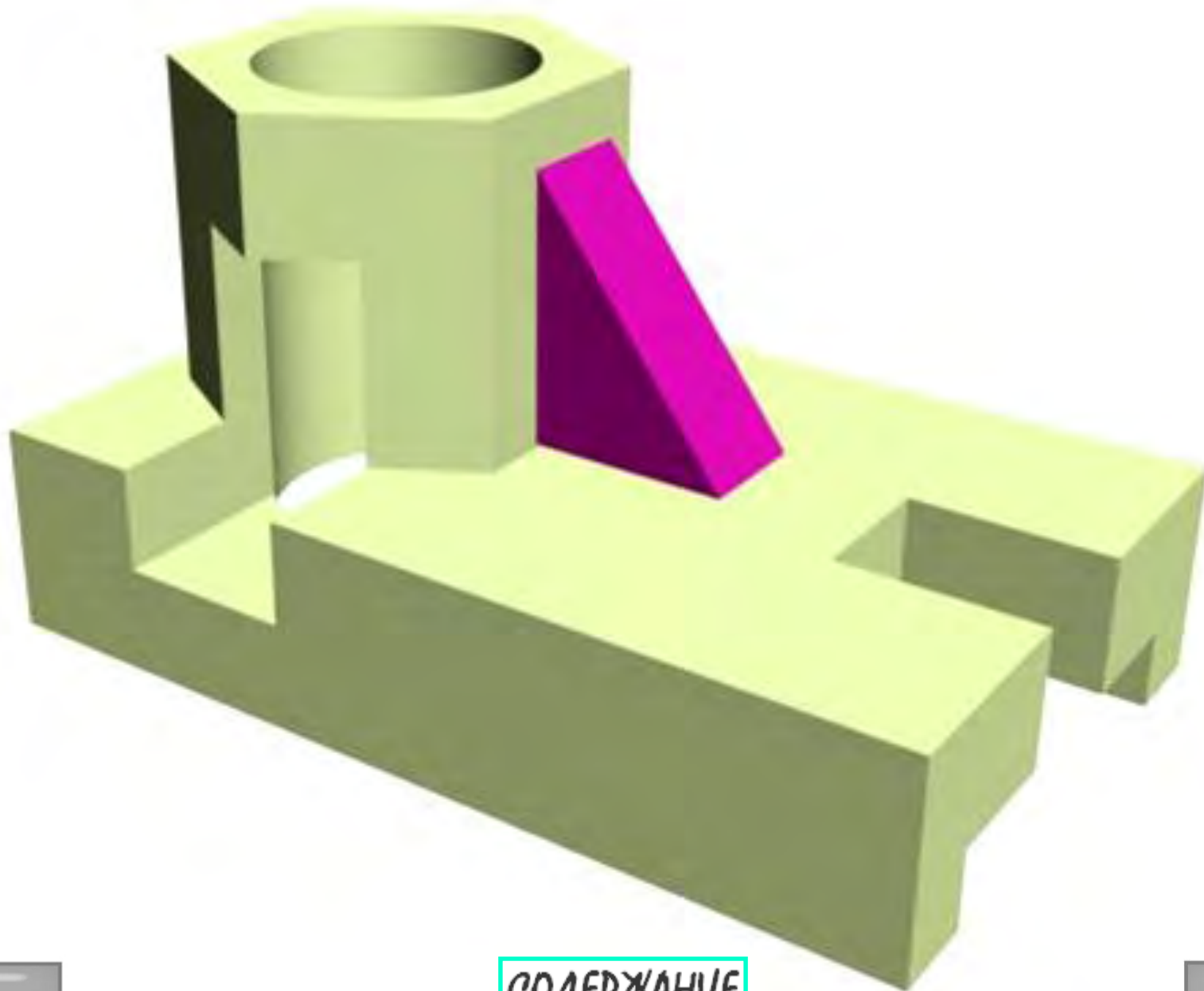
СОДЕРЖАНИЕ



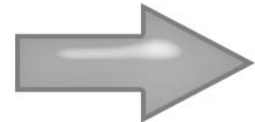
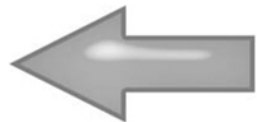


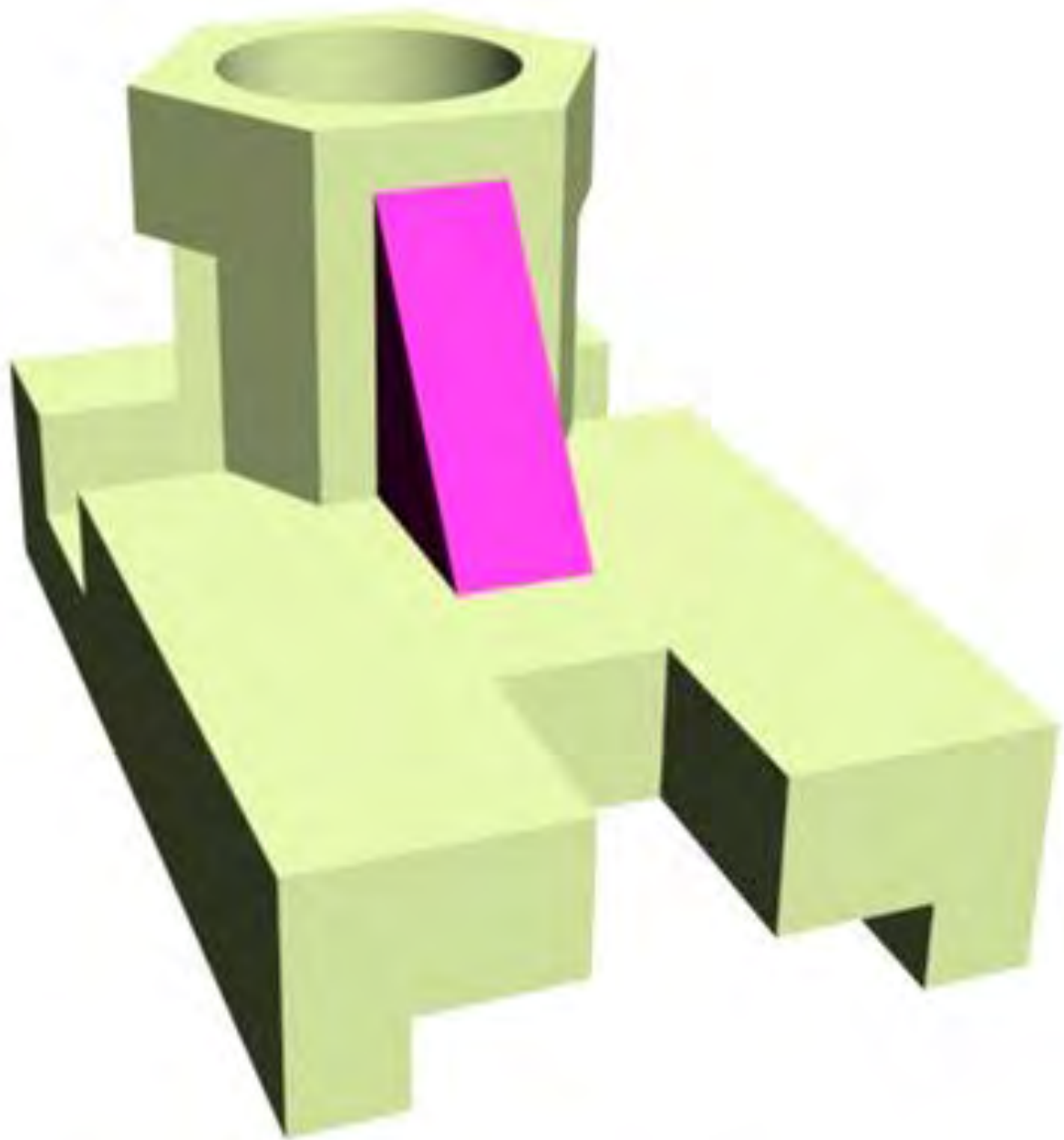
СОДЕРЖАНИЕ



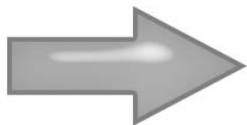
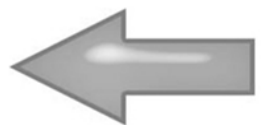


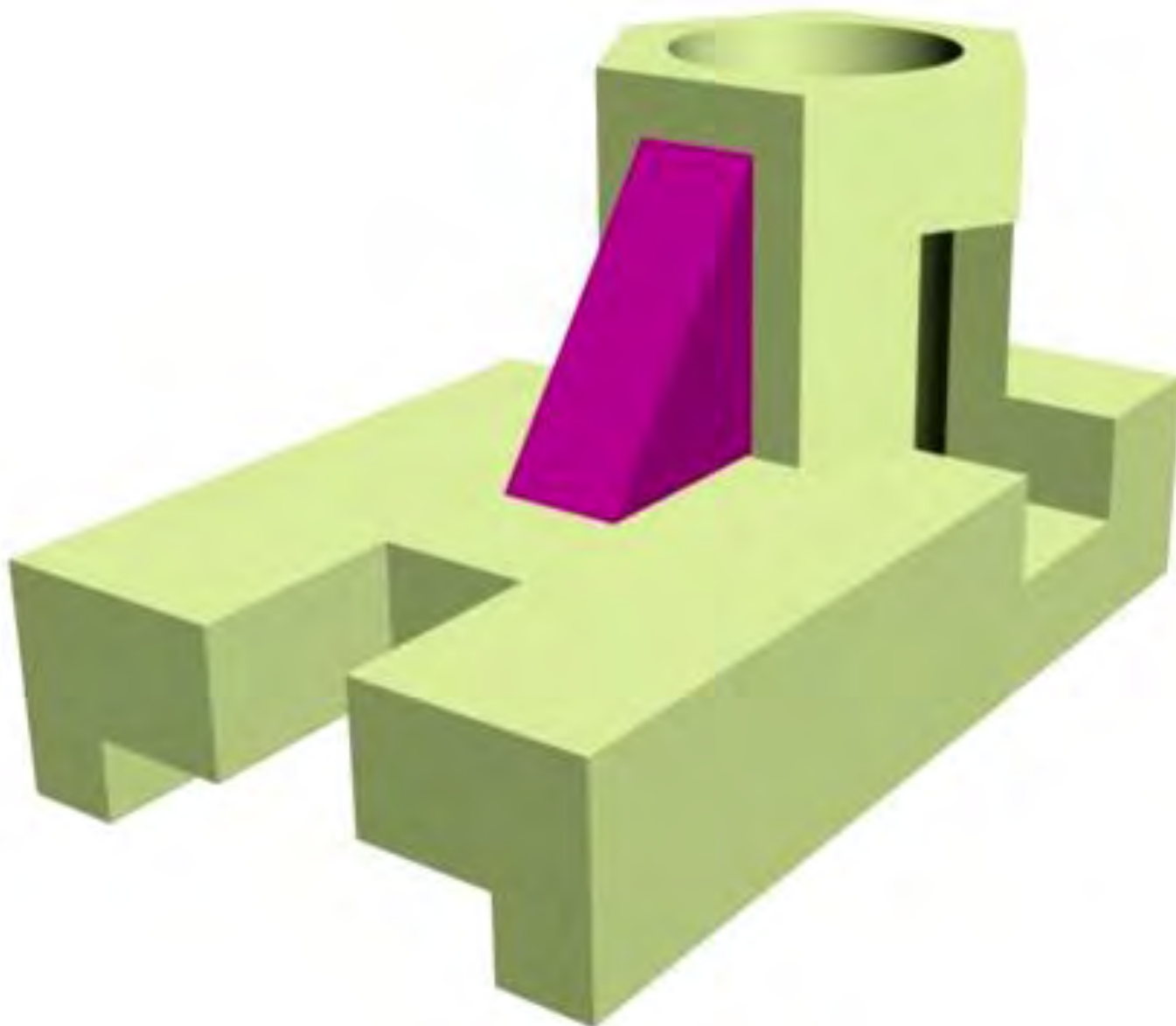
СОДЕРЖАНИЕ



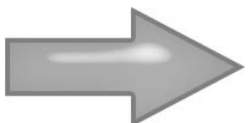
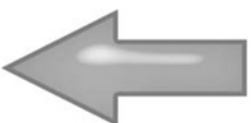


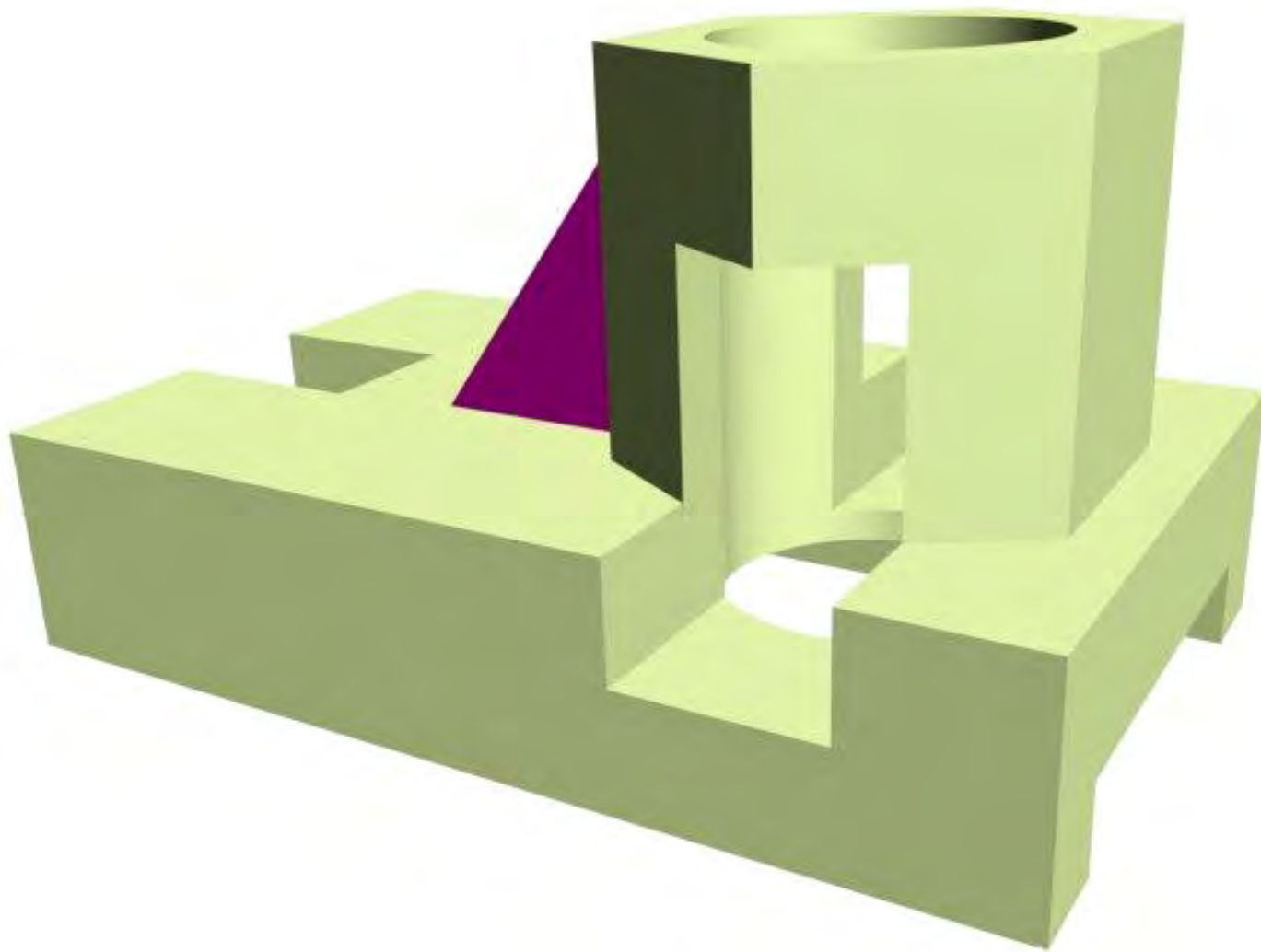
СОДЕРЖАНИЕ



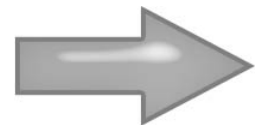
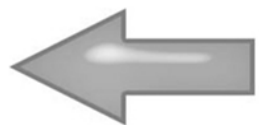


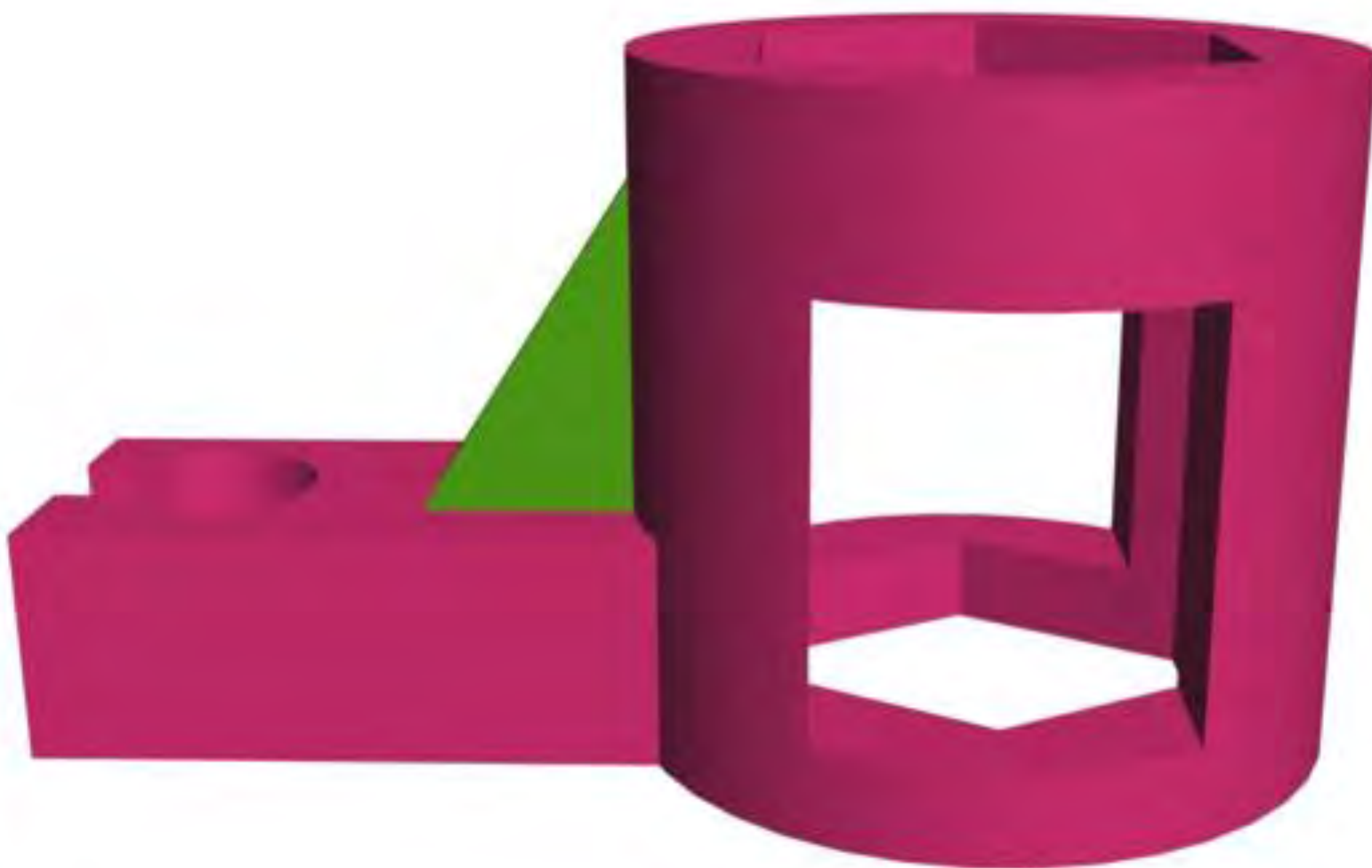
СОДЕРЖАНИЕ



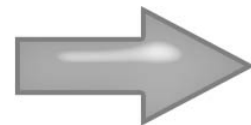
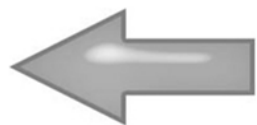


СОДЕРЖАНИЕ



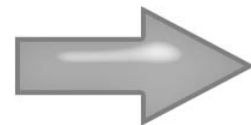
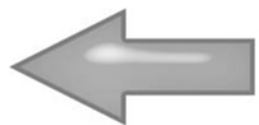


СОДЕРЖАНИЕ



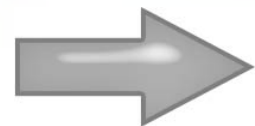
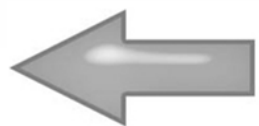


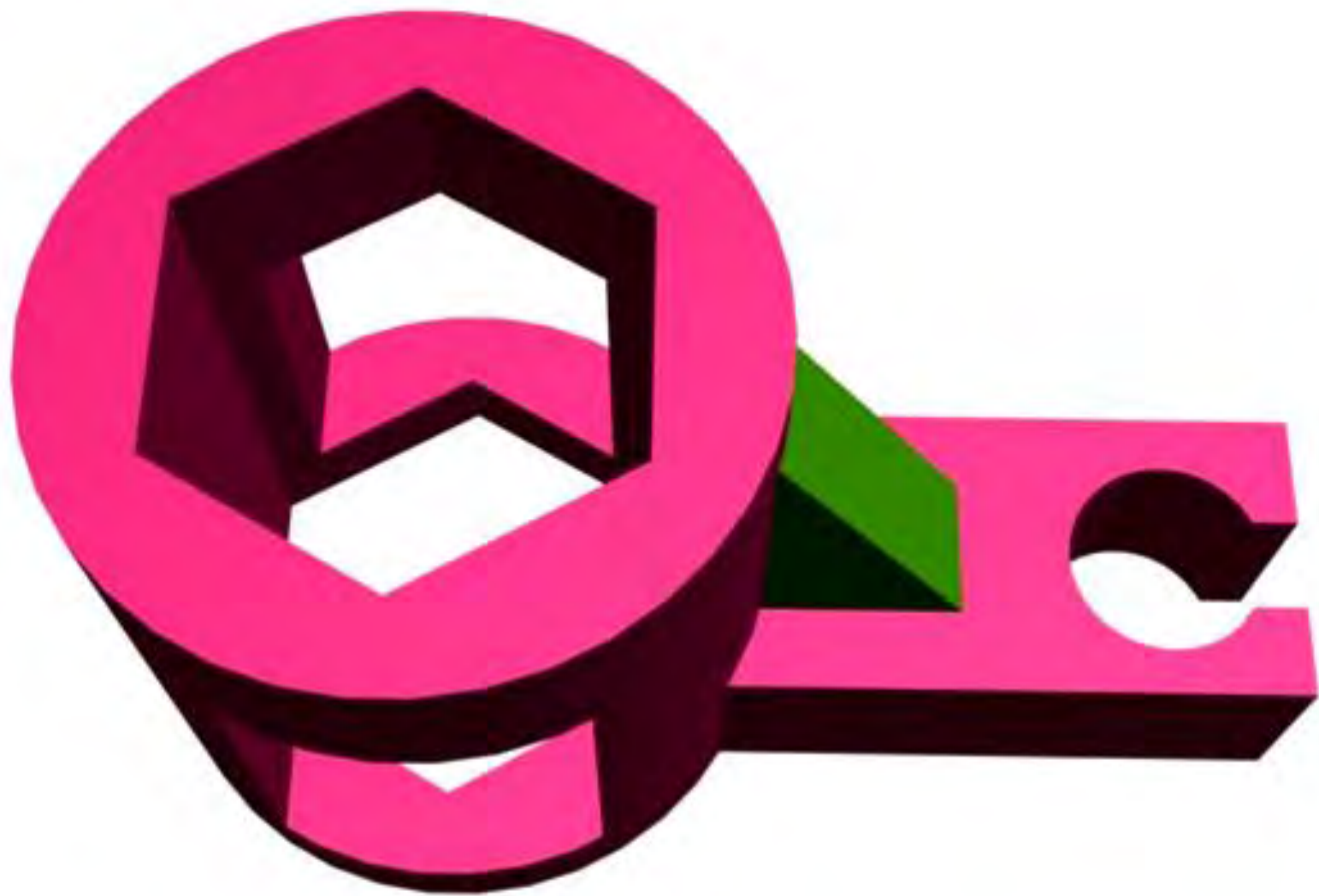
СОДЕРЖАНИЕ



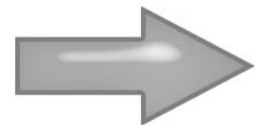
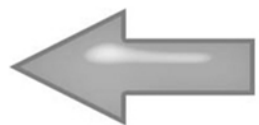


СОДЕРЖАНИЕ



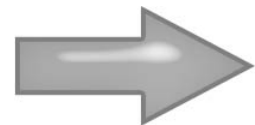
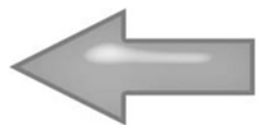


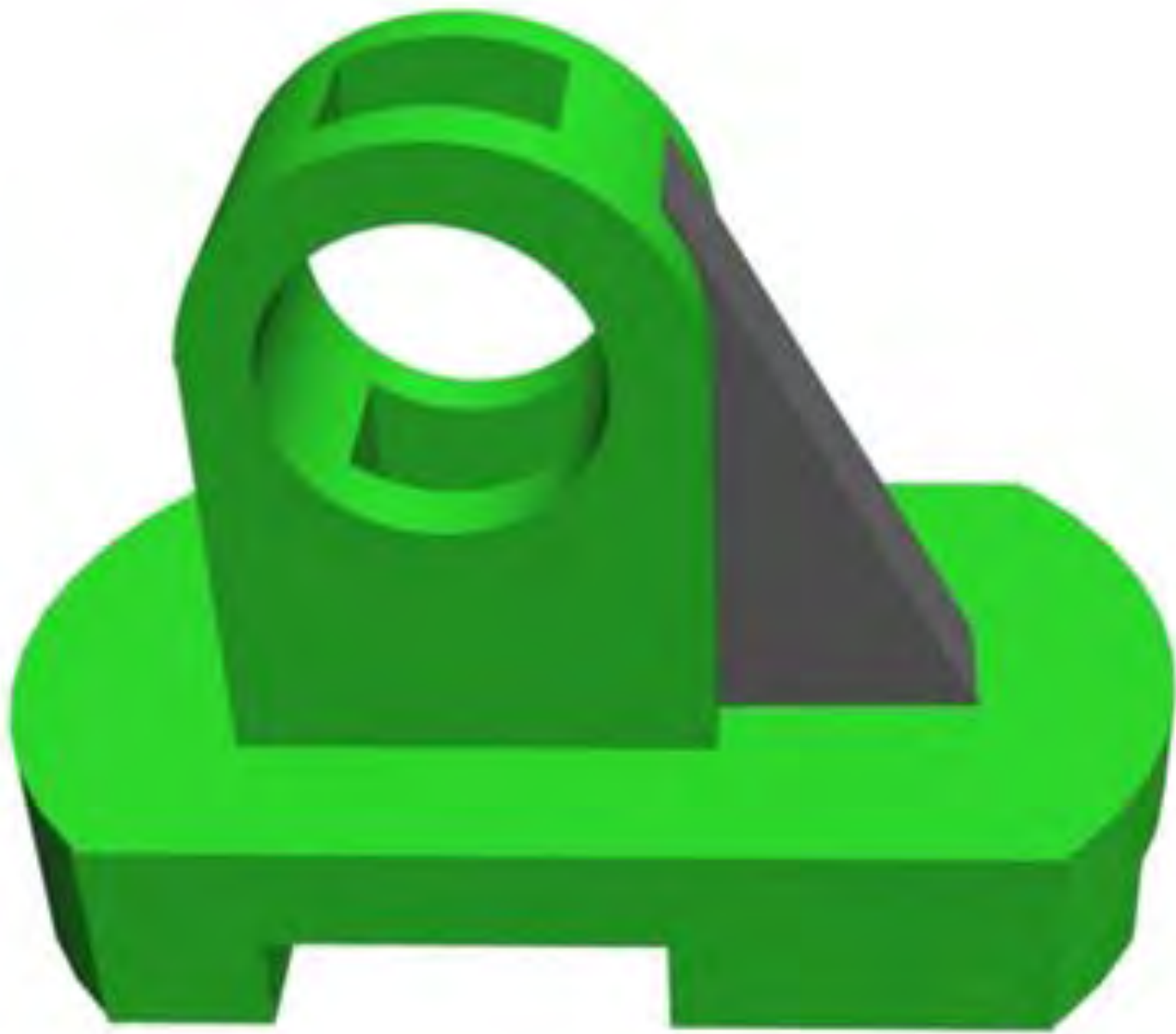
СОДЕРЖАНИЕ



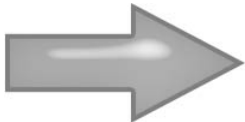
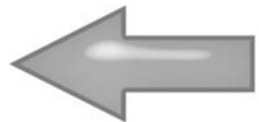


СОДЕРЖАНИЕ



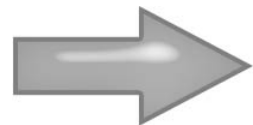
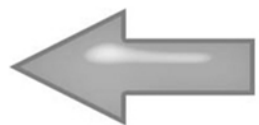


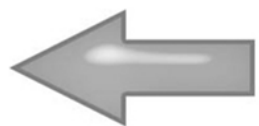
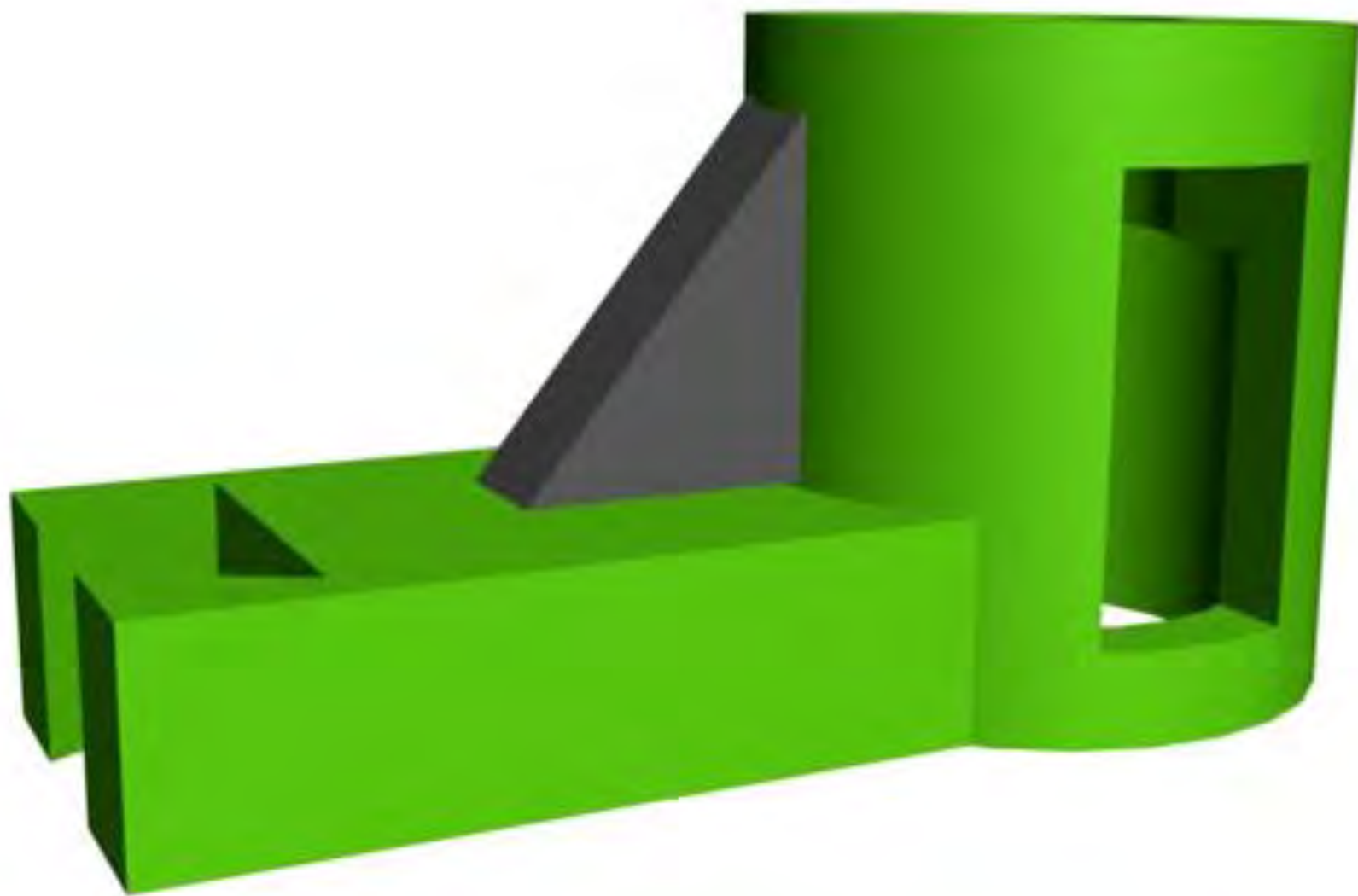
СОДЕРЖАНИЕ



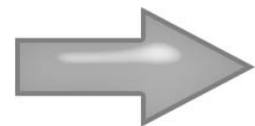


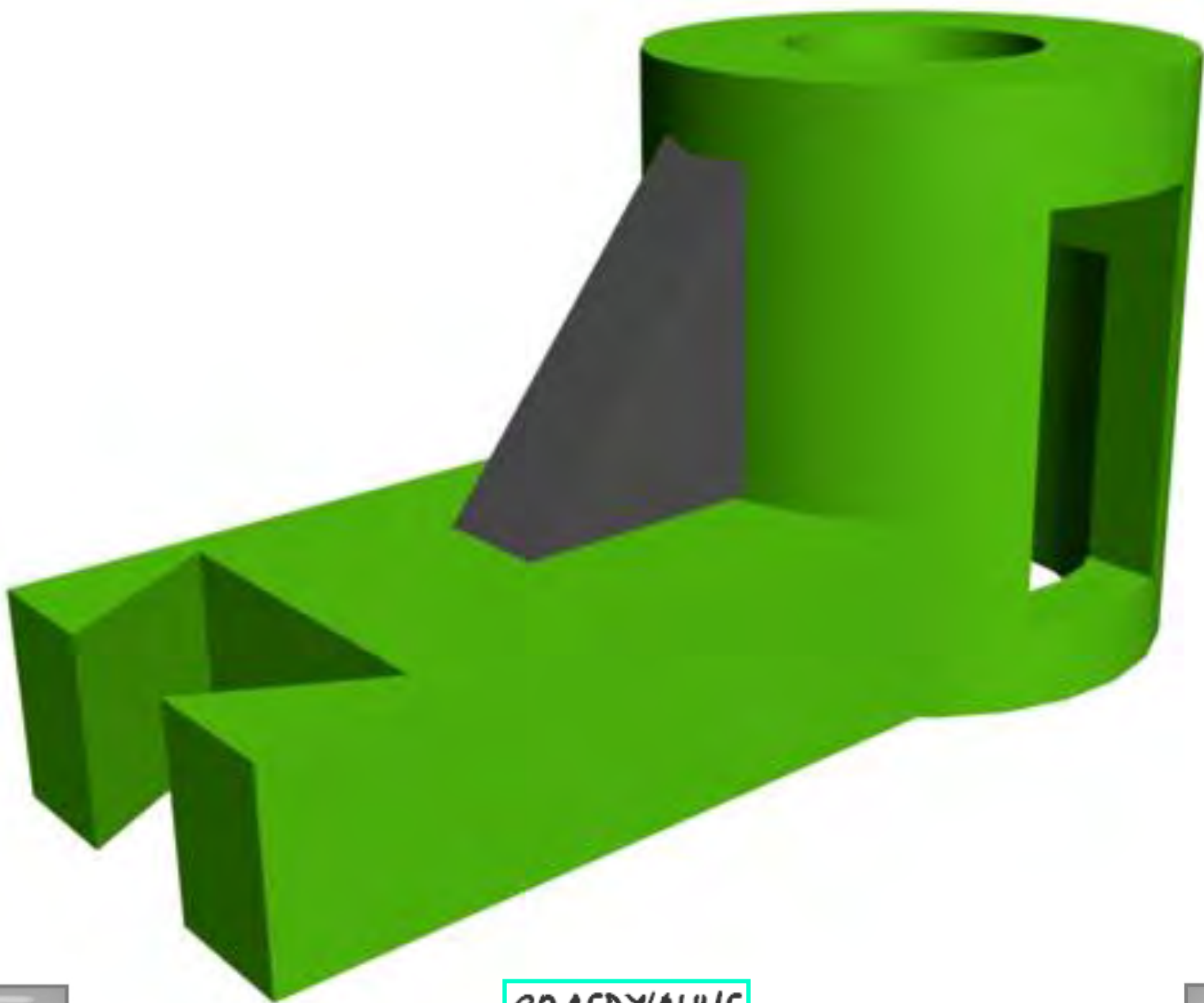
СОДЕРЖАНИЕ



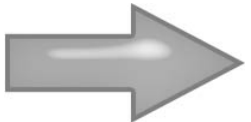
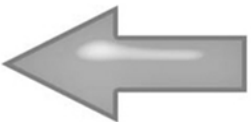


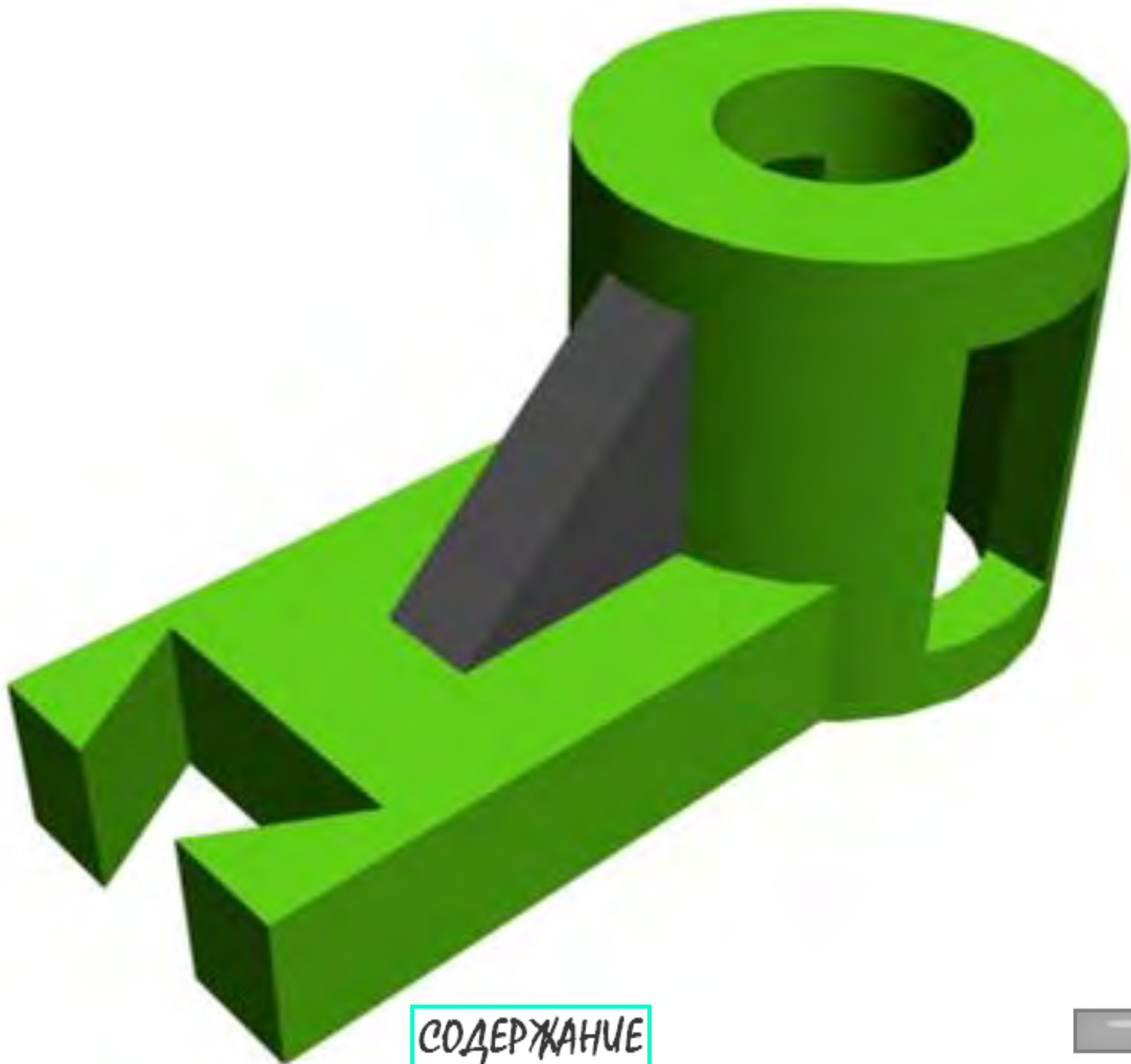
СОДЕРЖАНИЕ



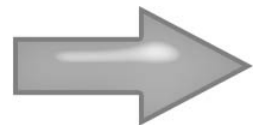
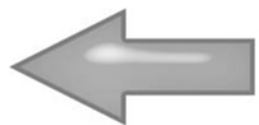


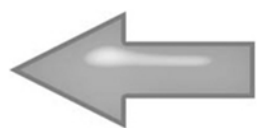
СОДЕРЖАНИЕ



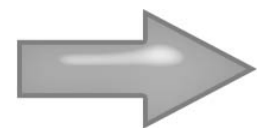


СОДЕРЖАНИЕ

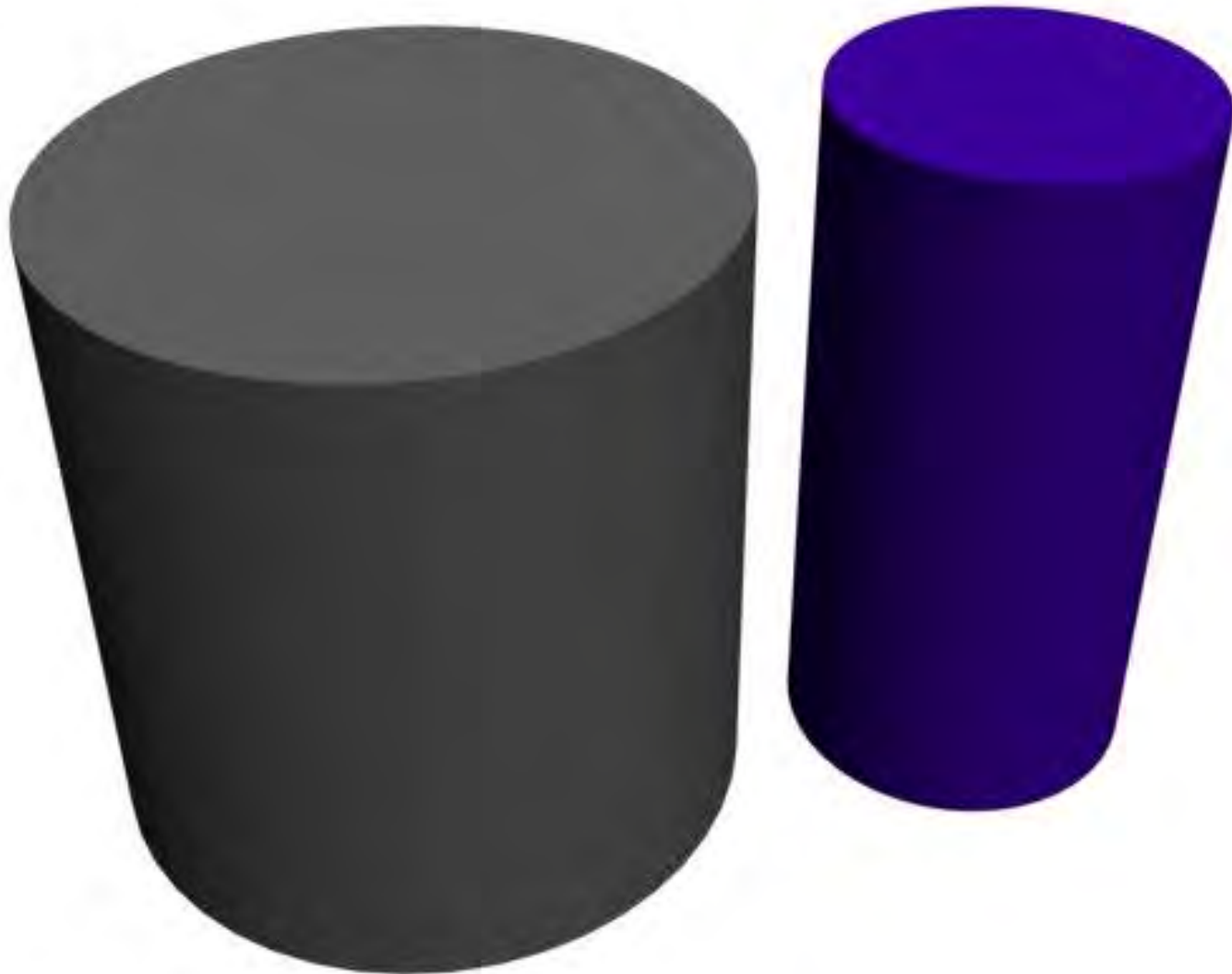




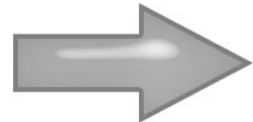
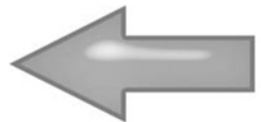
СОДЕРЖАНИЕ

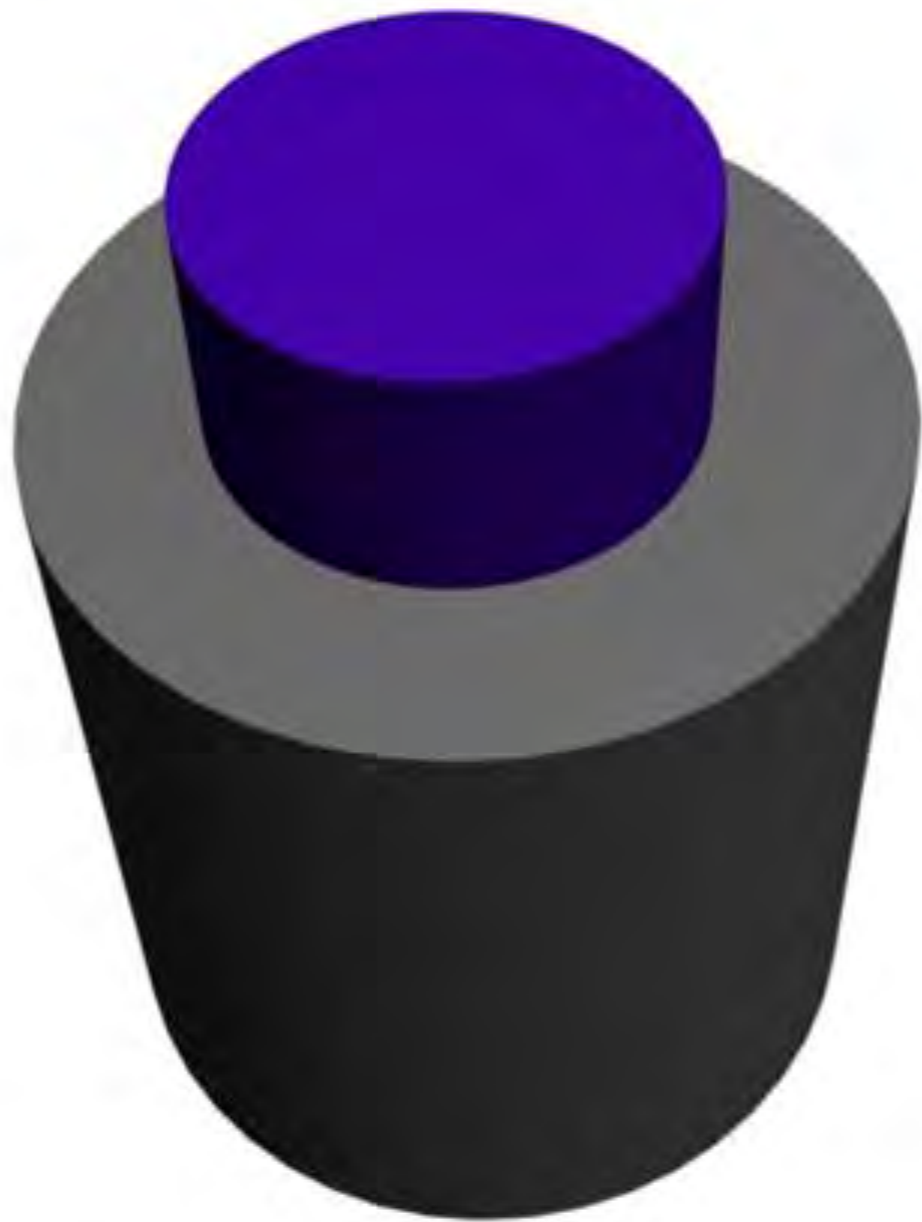


Задача № 4. МОДЕЛЬ СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

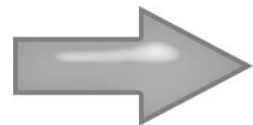
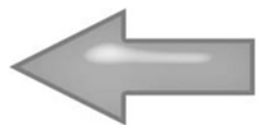


СОДЕРЖАНИЕ



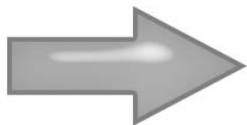
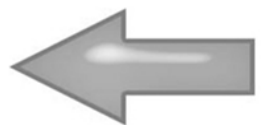


СОДЕРЖАНИЕ



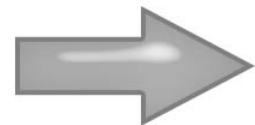
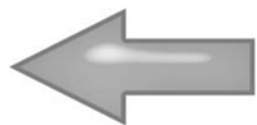


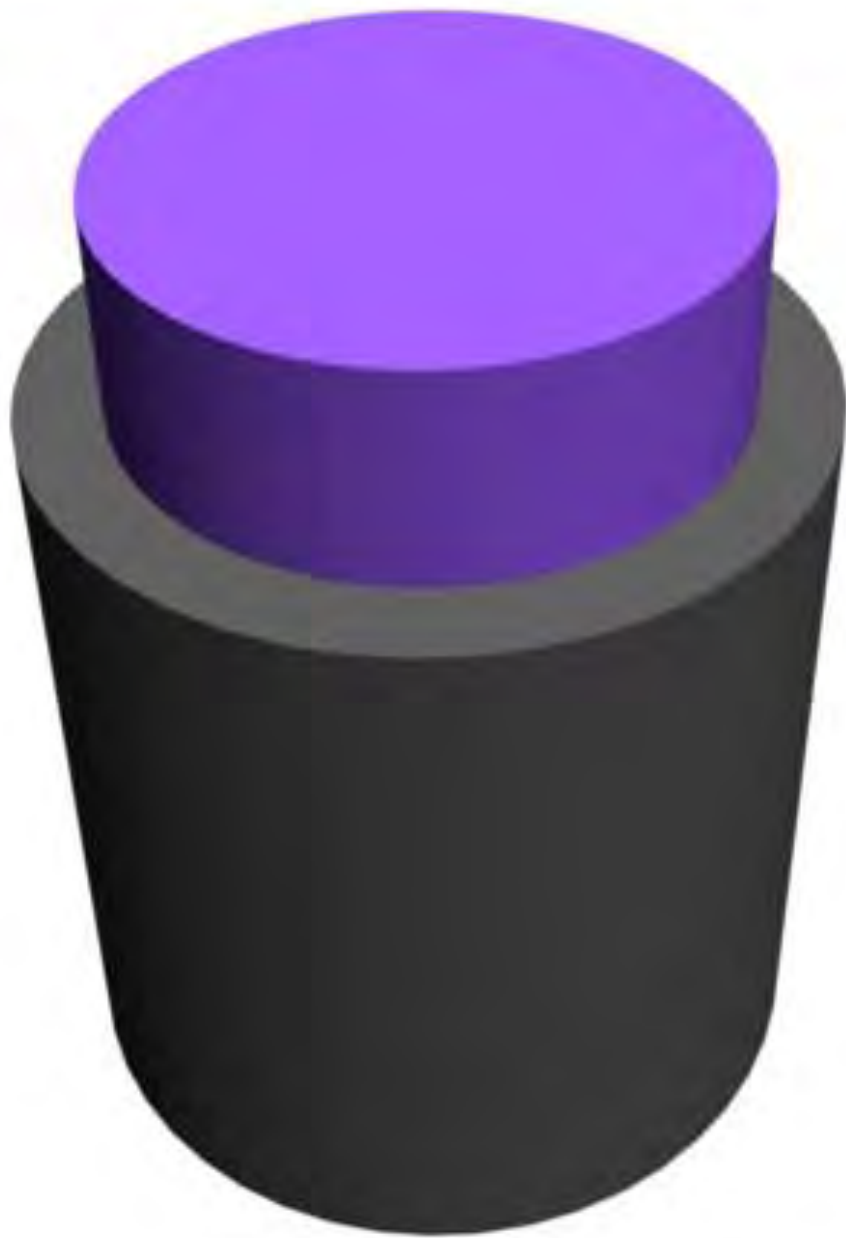
СОДЕРЖАНИЕ



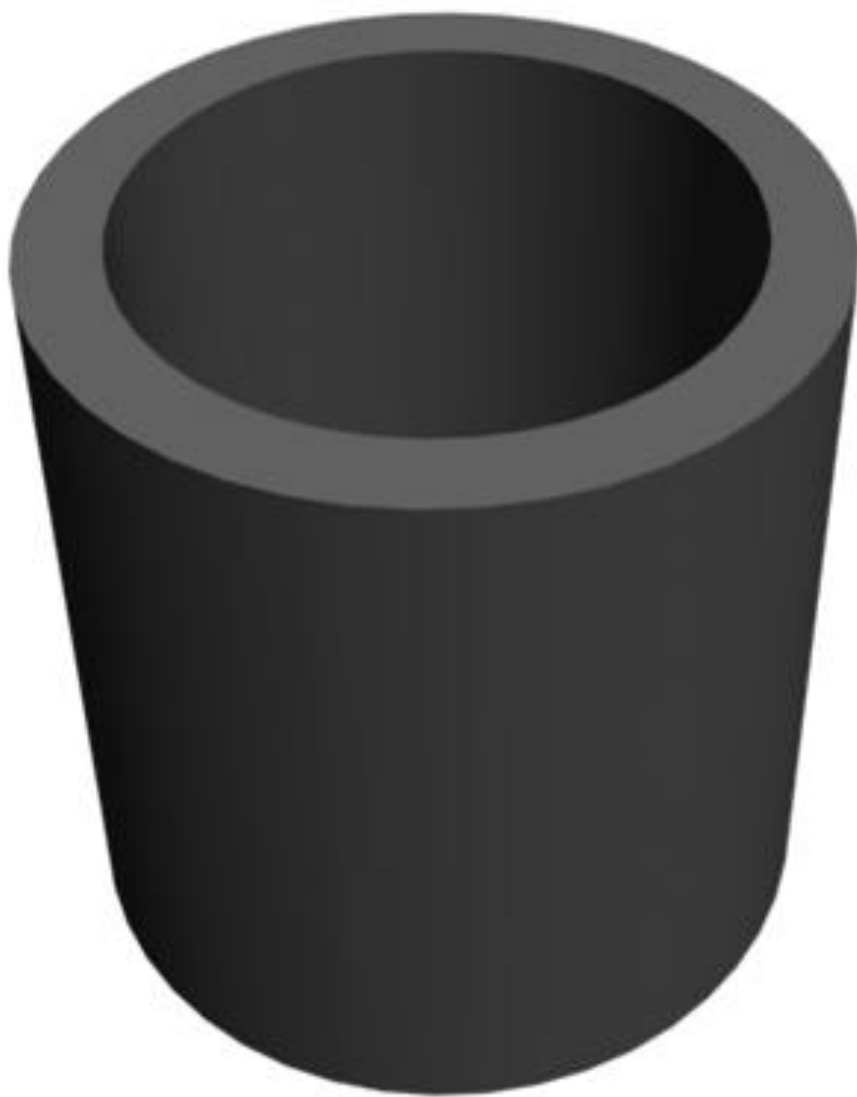


СОДЕРЖАНИЕ

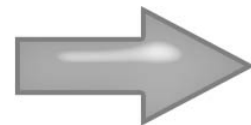
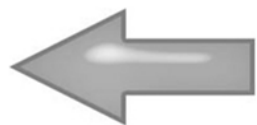


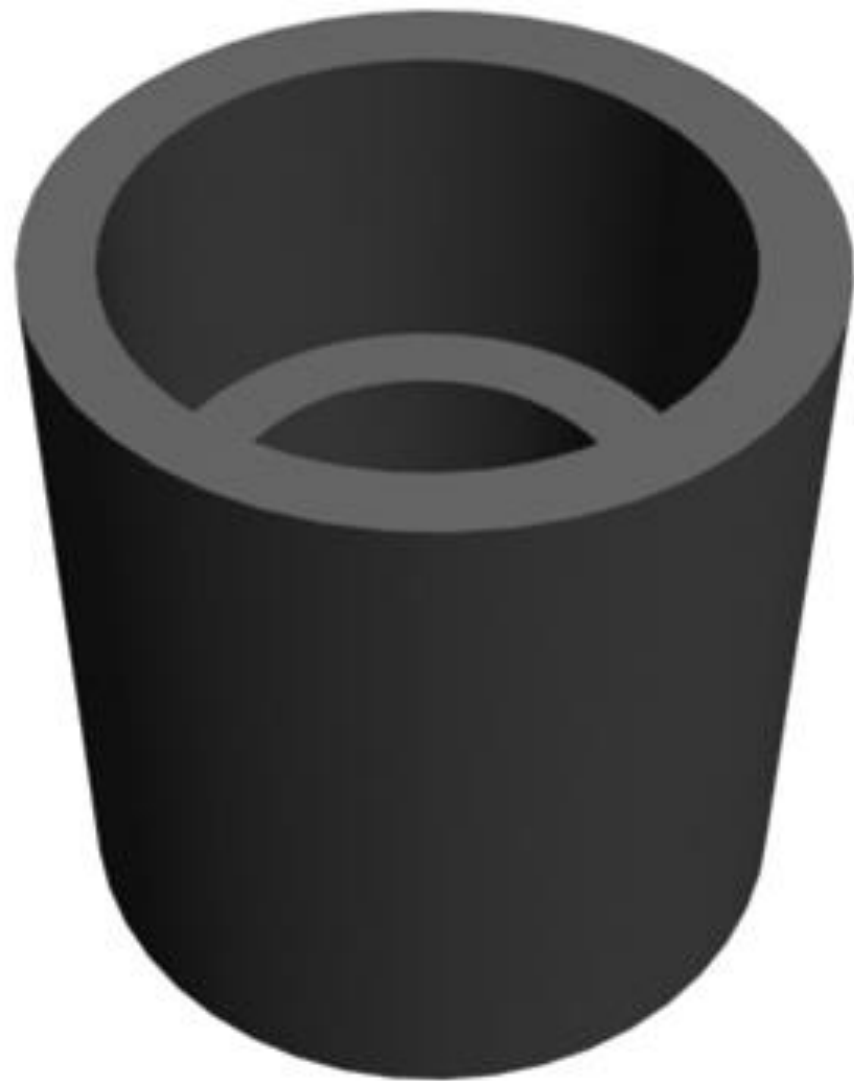


СОДЕРЖАНИЕ

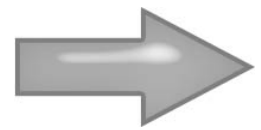
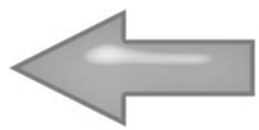


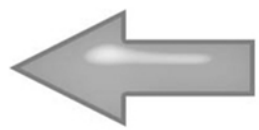
СОДЕРЖАНИЕ



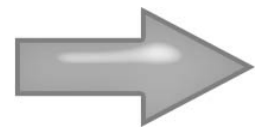


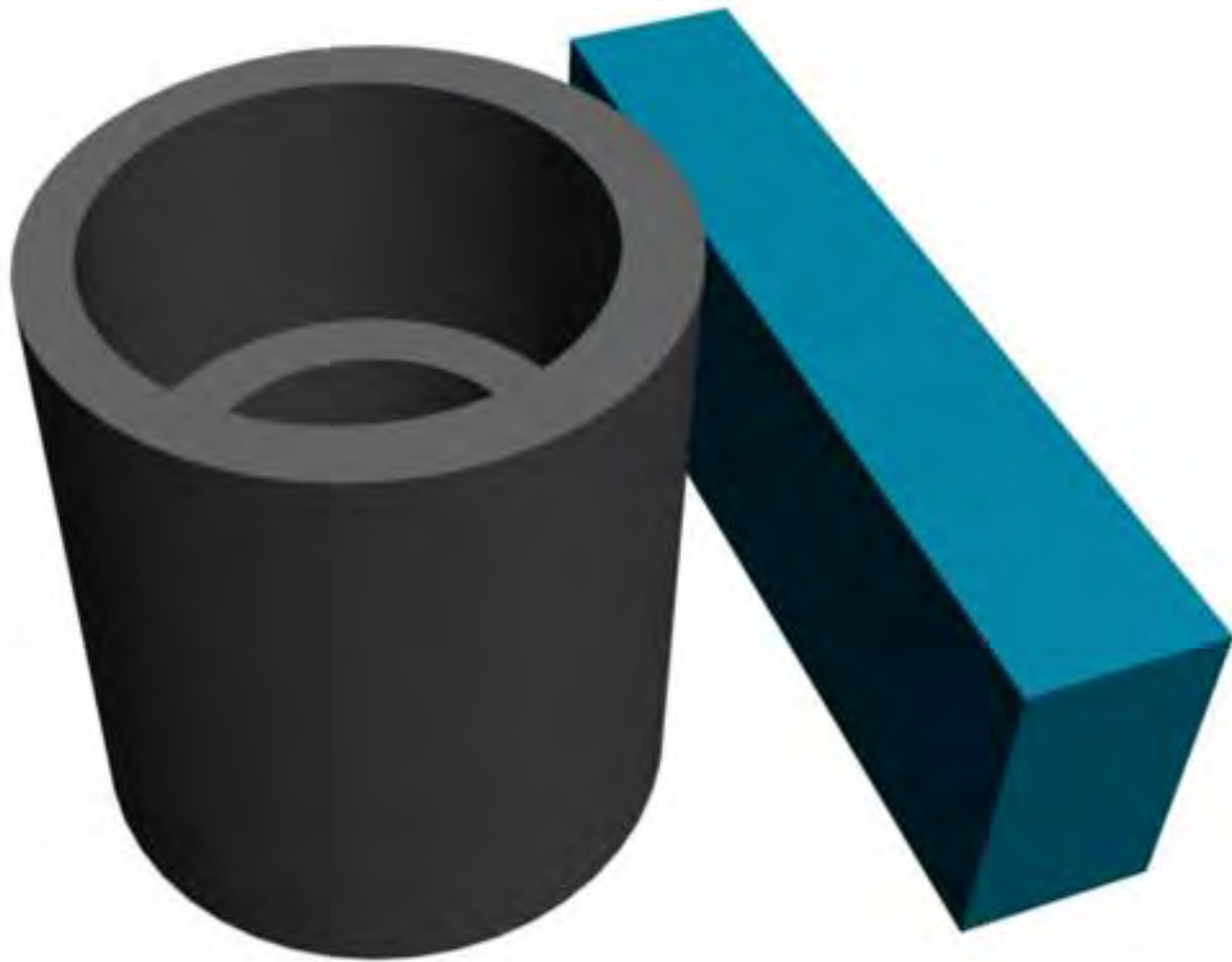
СОДЕРЖАНИЕ



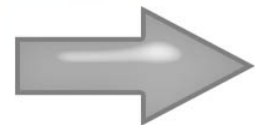
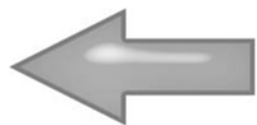


СОДЕРЖАНИЕ



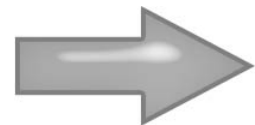
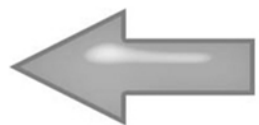


СОДЕРЖАНИЕ



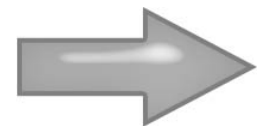


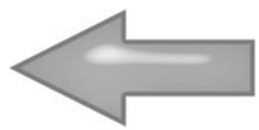
СОДЕРЖАНИЕ



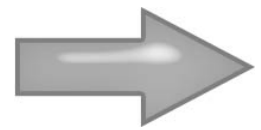


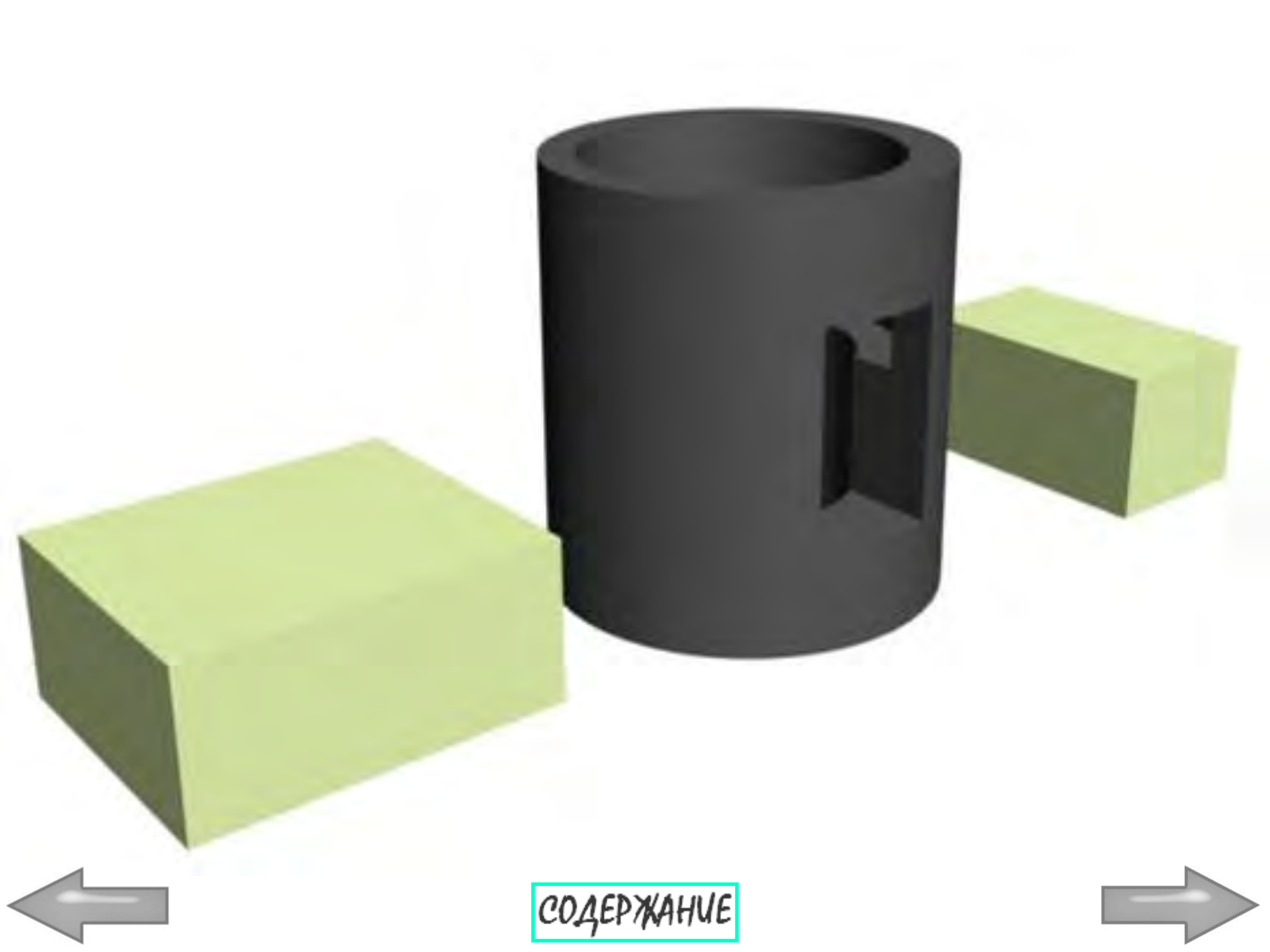
СОДЕРЖАНИЕ



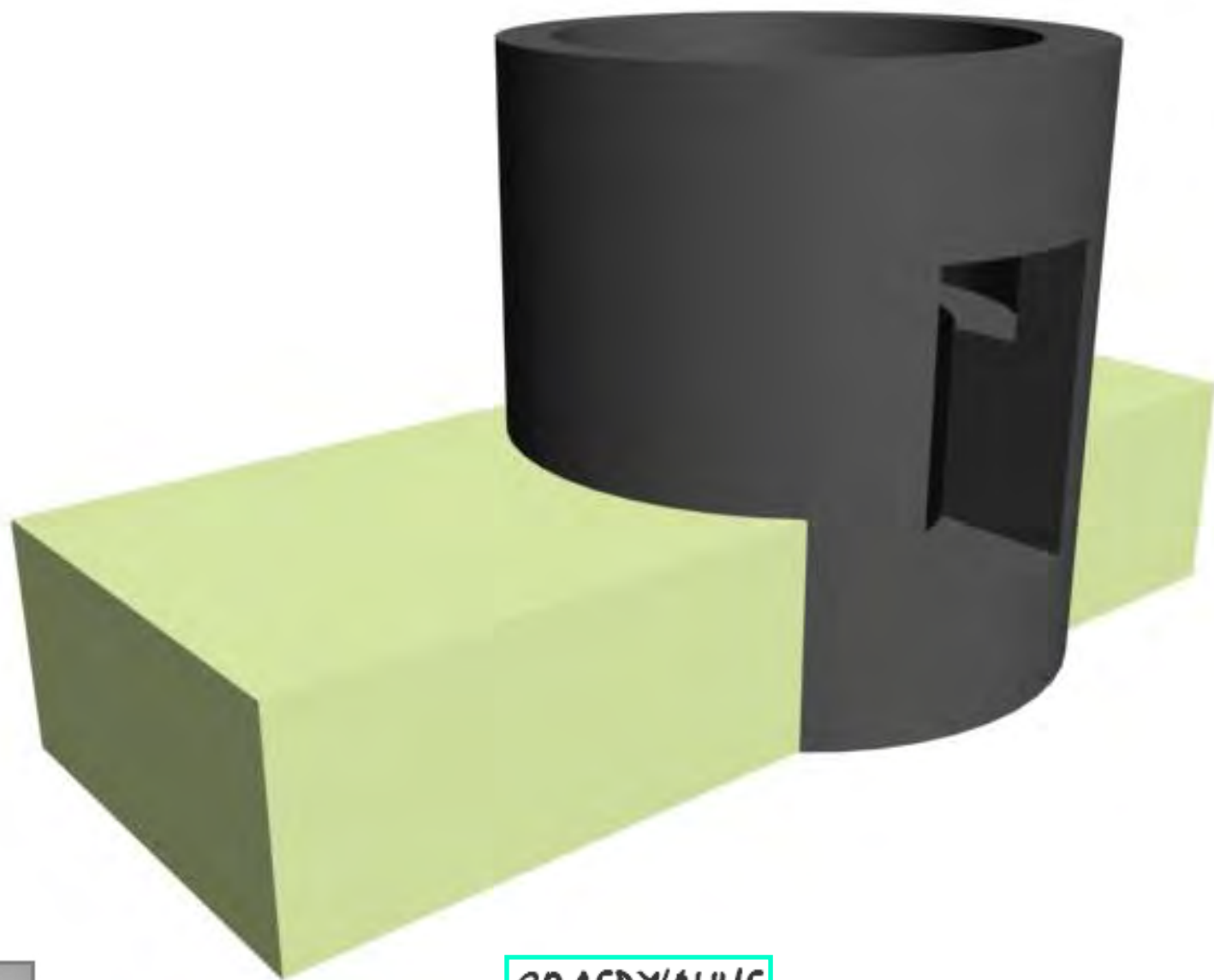


СОДЕРЖАНИЕ

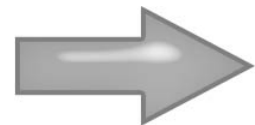
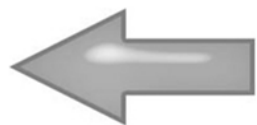


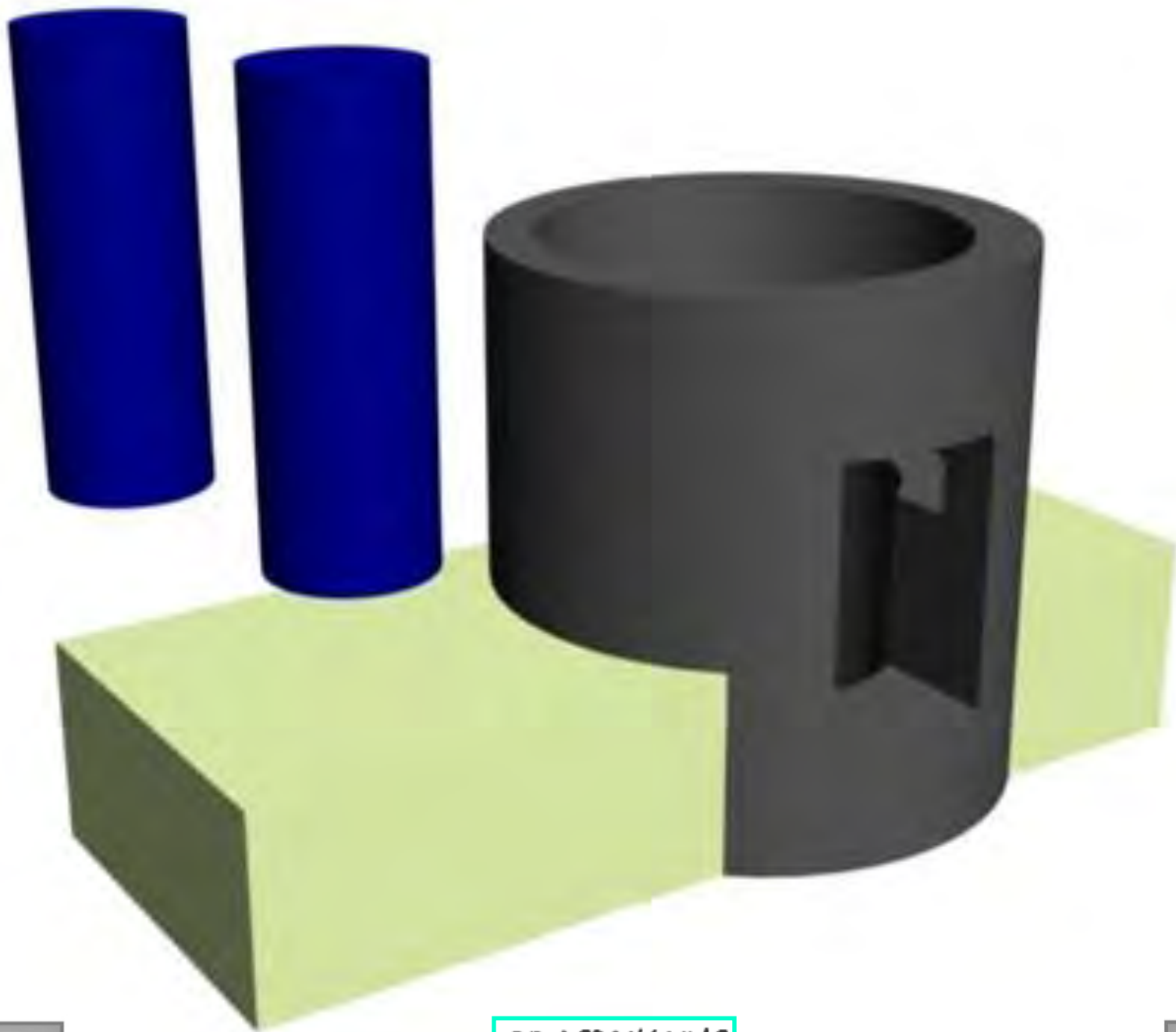


СОДЕРЖАНИЕ

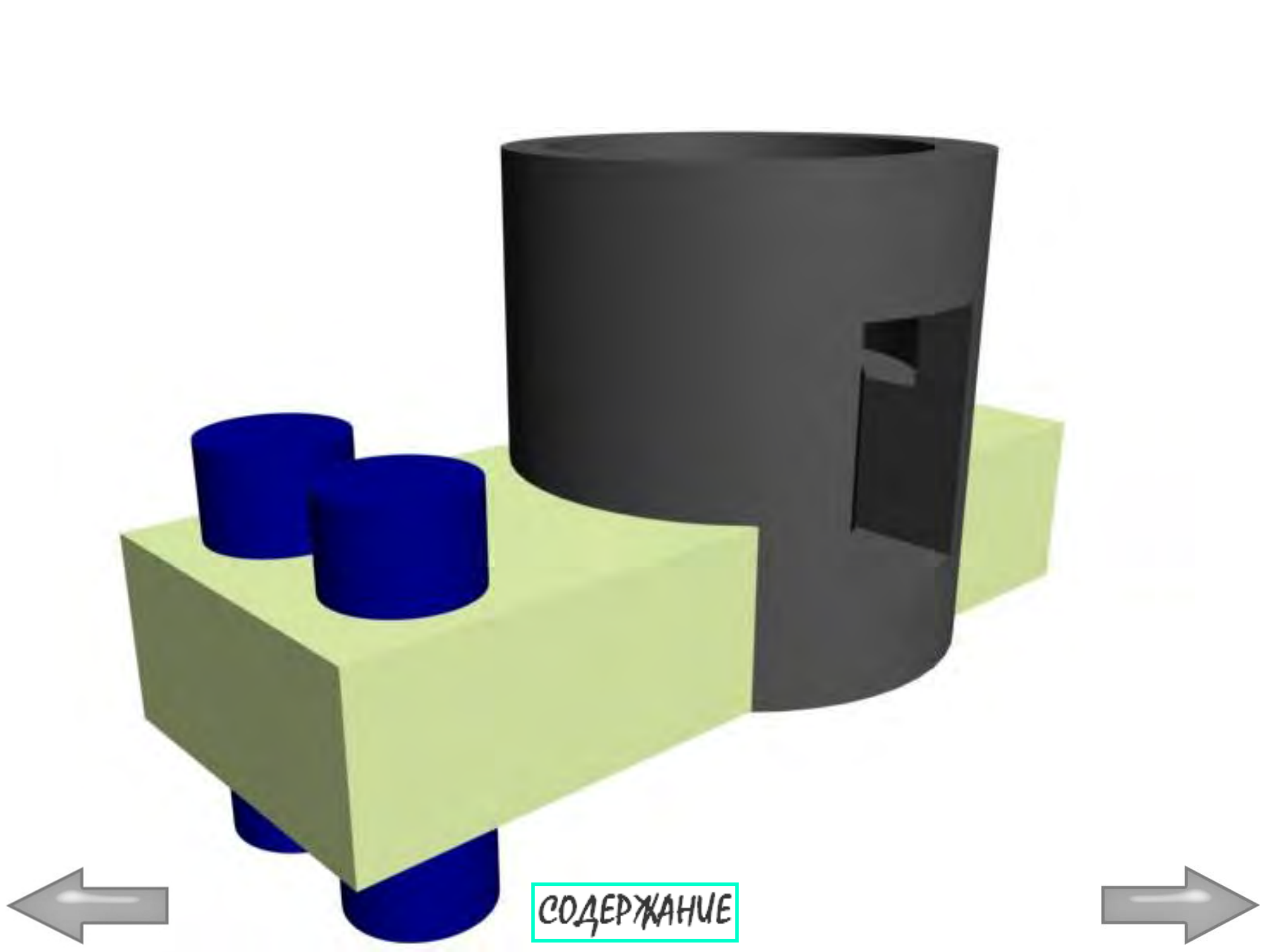


СОДЕРЖАНИЕ

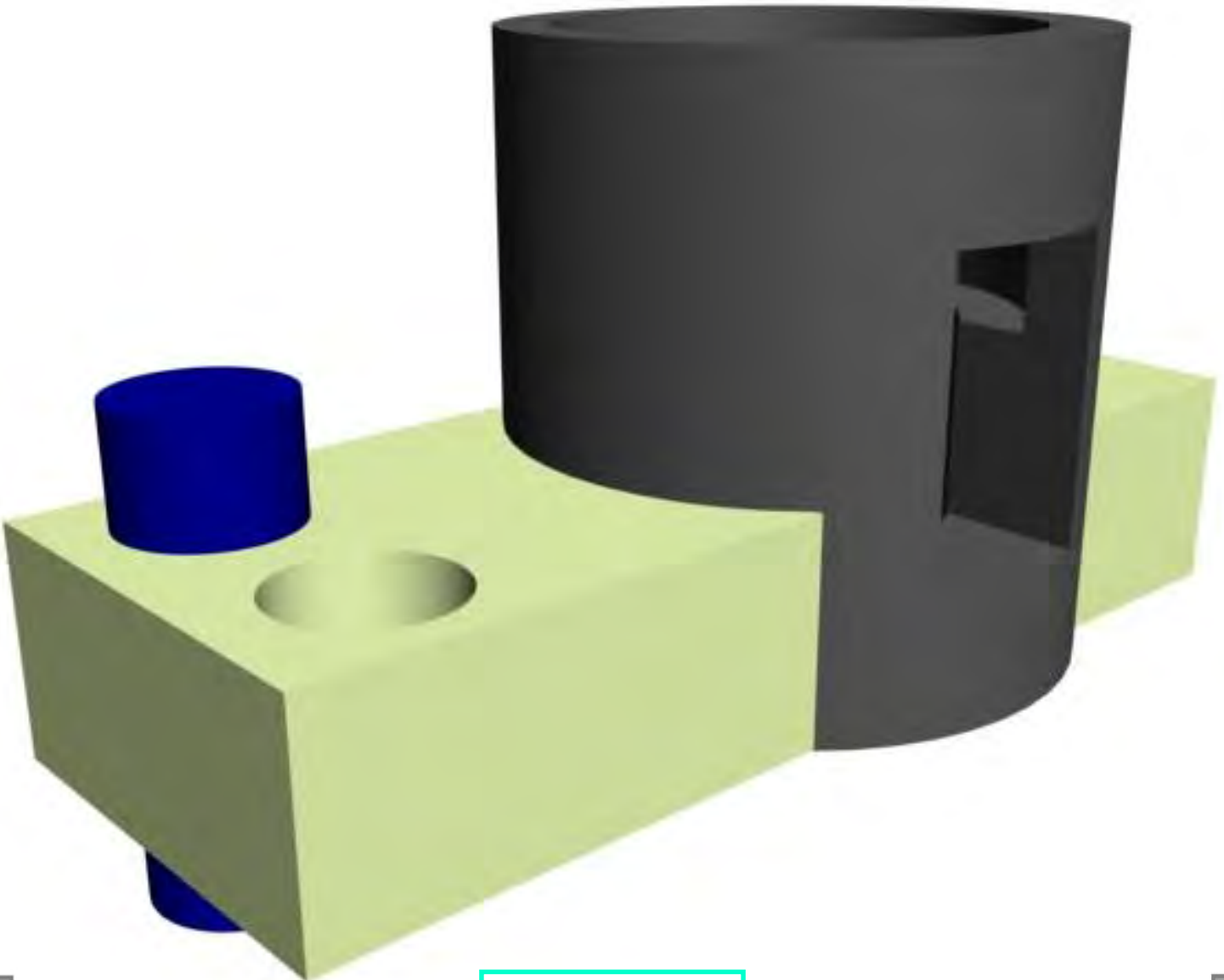




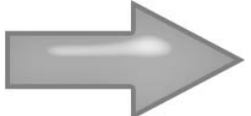
СОДЕРЖАНИЕ

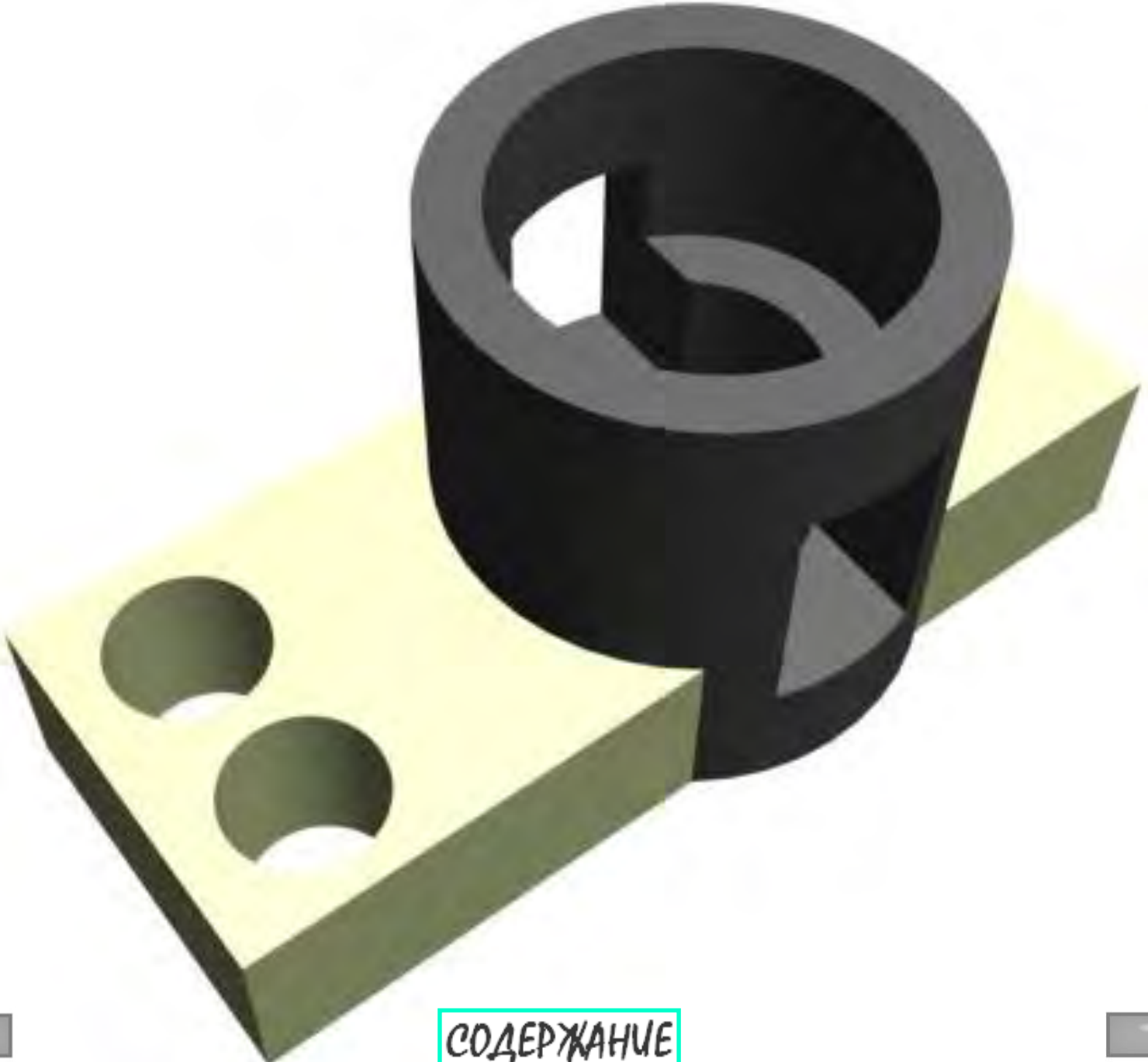


СОДЕРЖАНИЕ

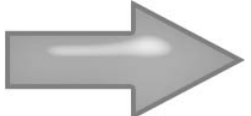


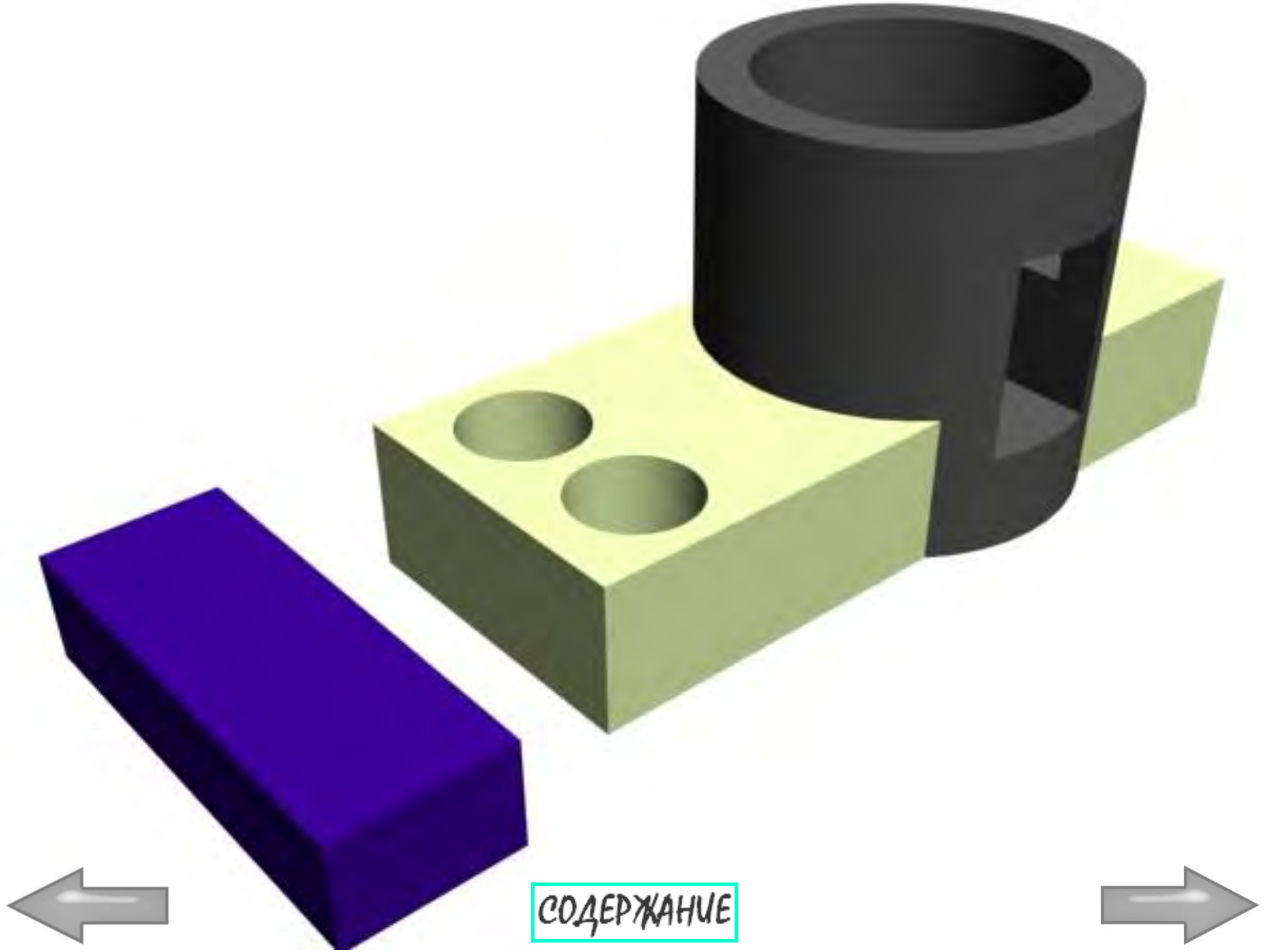
СОДЕРЖАНИЕ



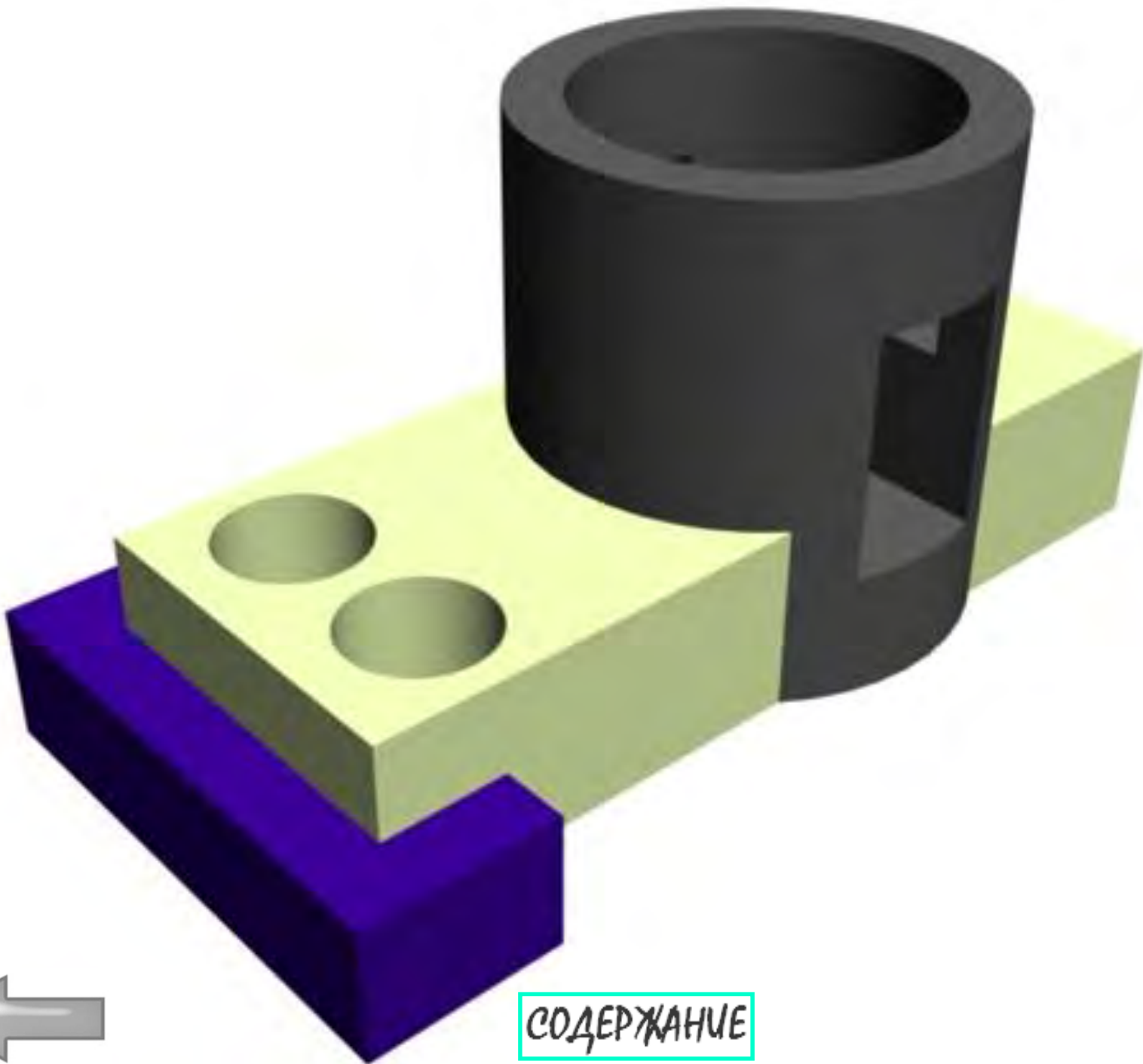


СОДЕРЖАНИЕ

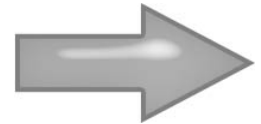
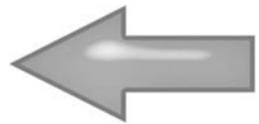


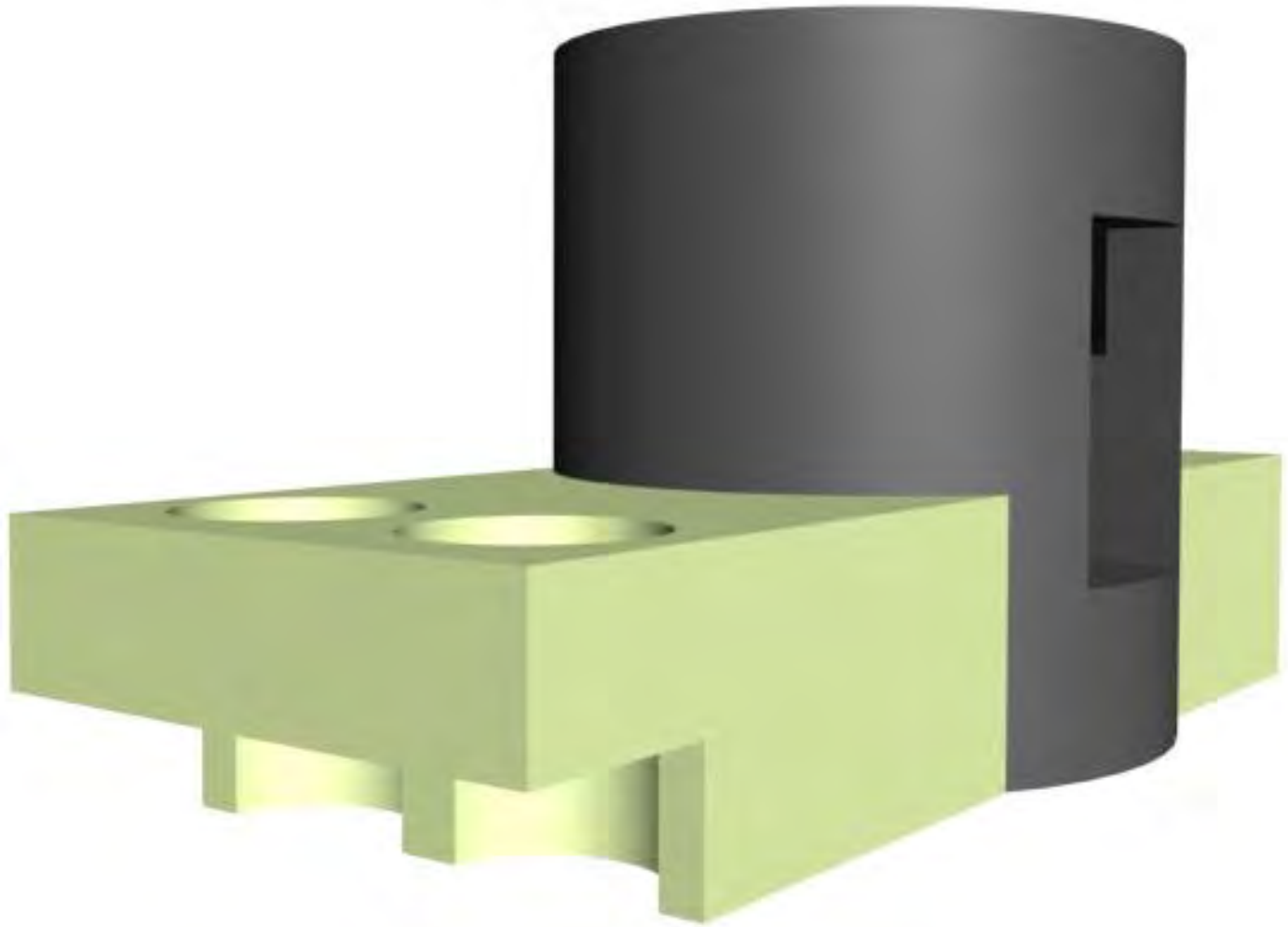


СОДЕРЖАНИЕ

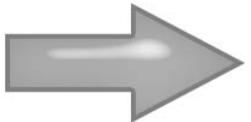
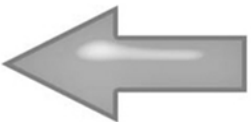


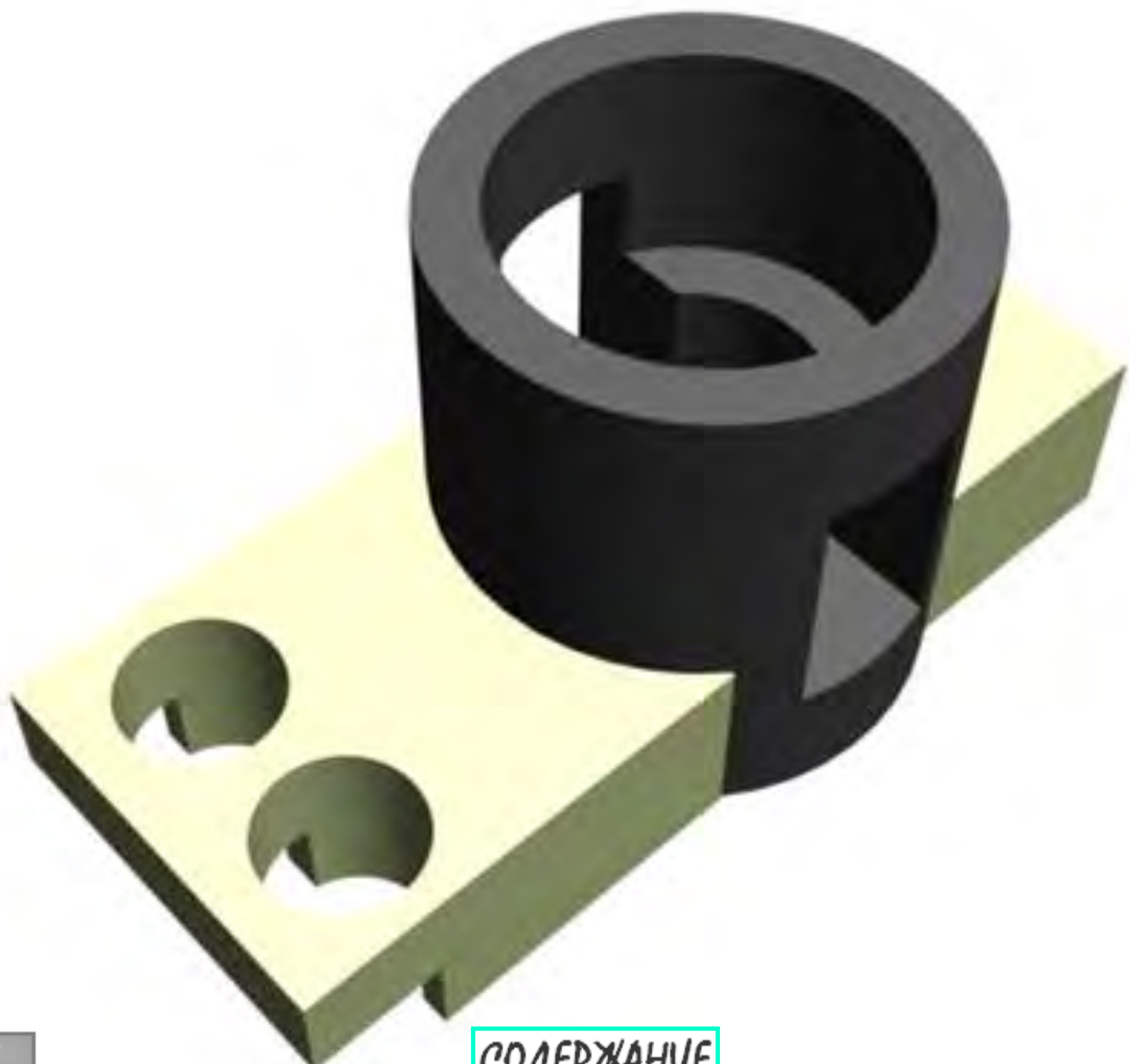
СОДЕРЖАНИЕ



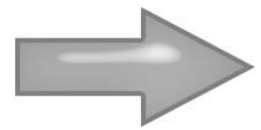
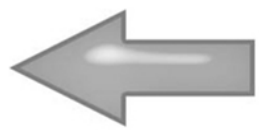


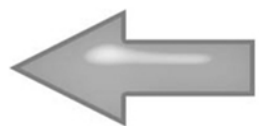
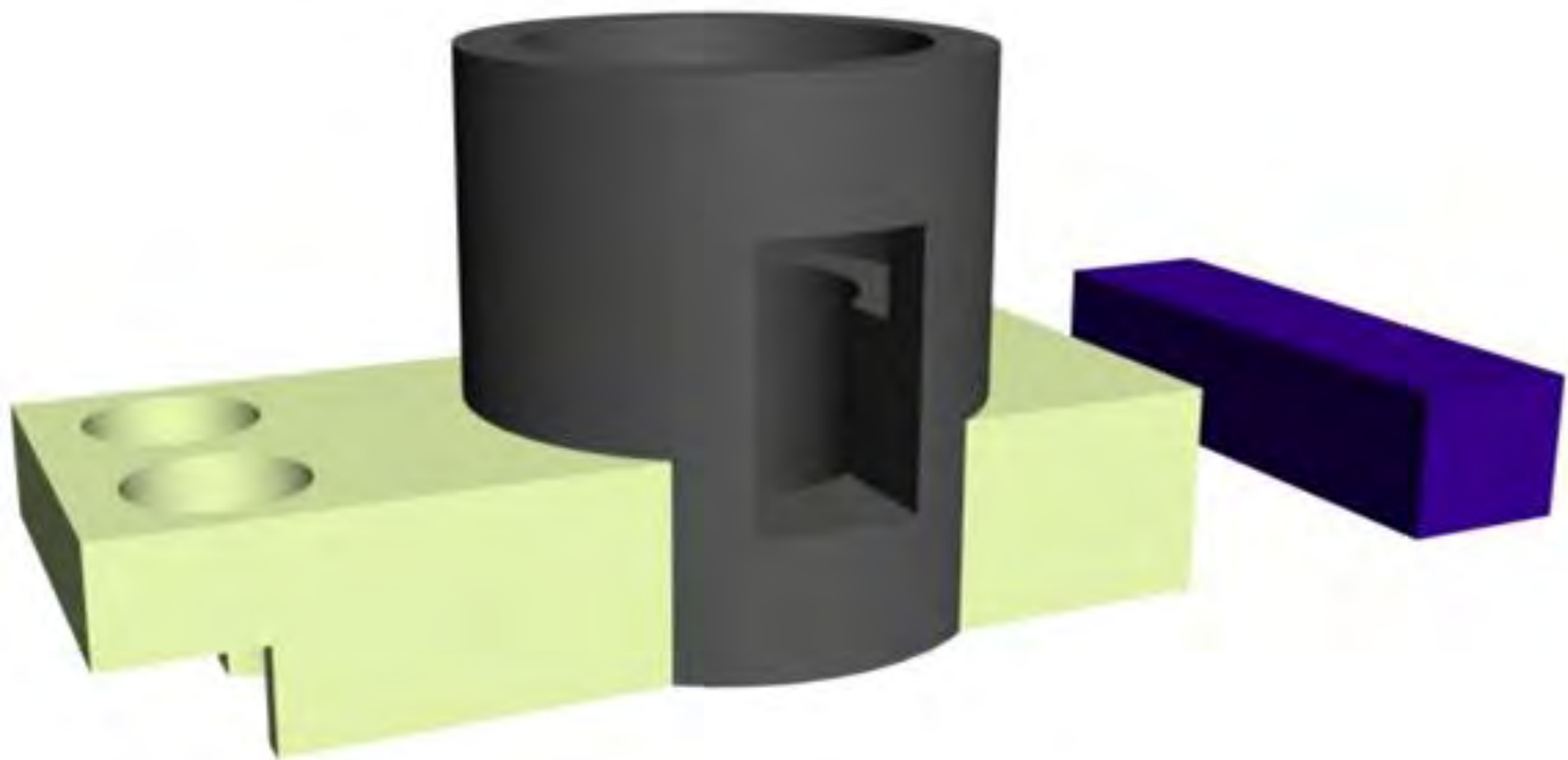
СОДЕРЖАНИЕ



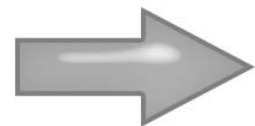


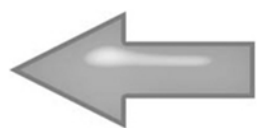
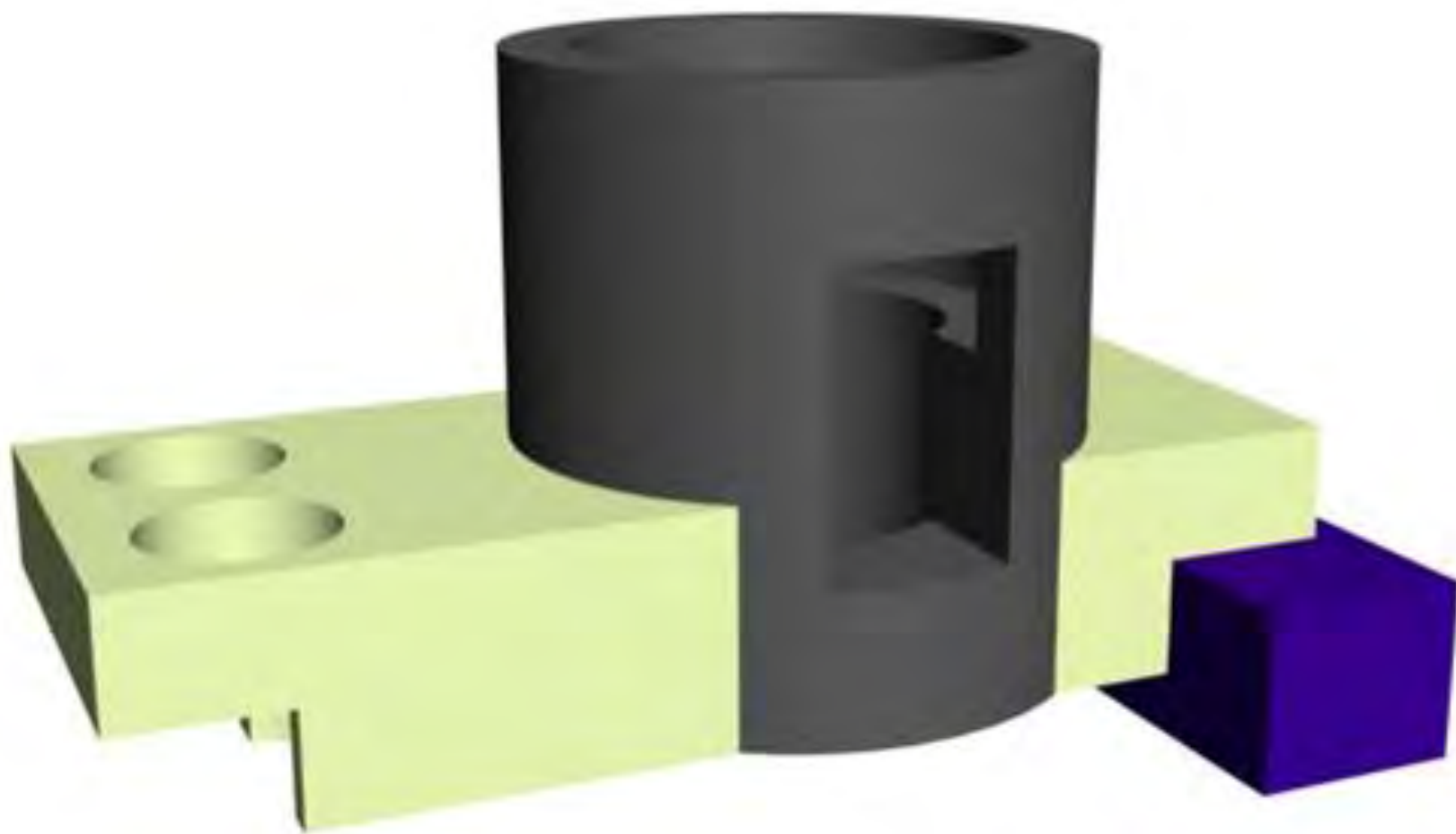
СОДЕРЖАНИЕ



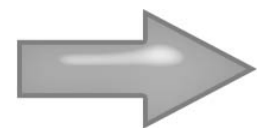


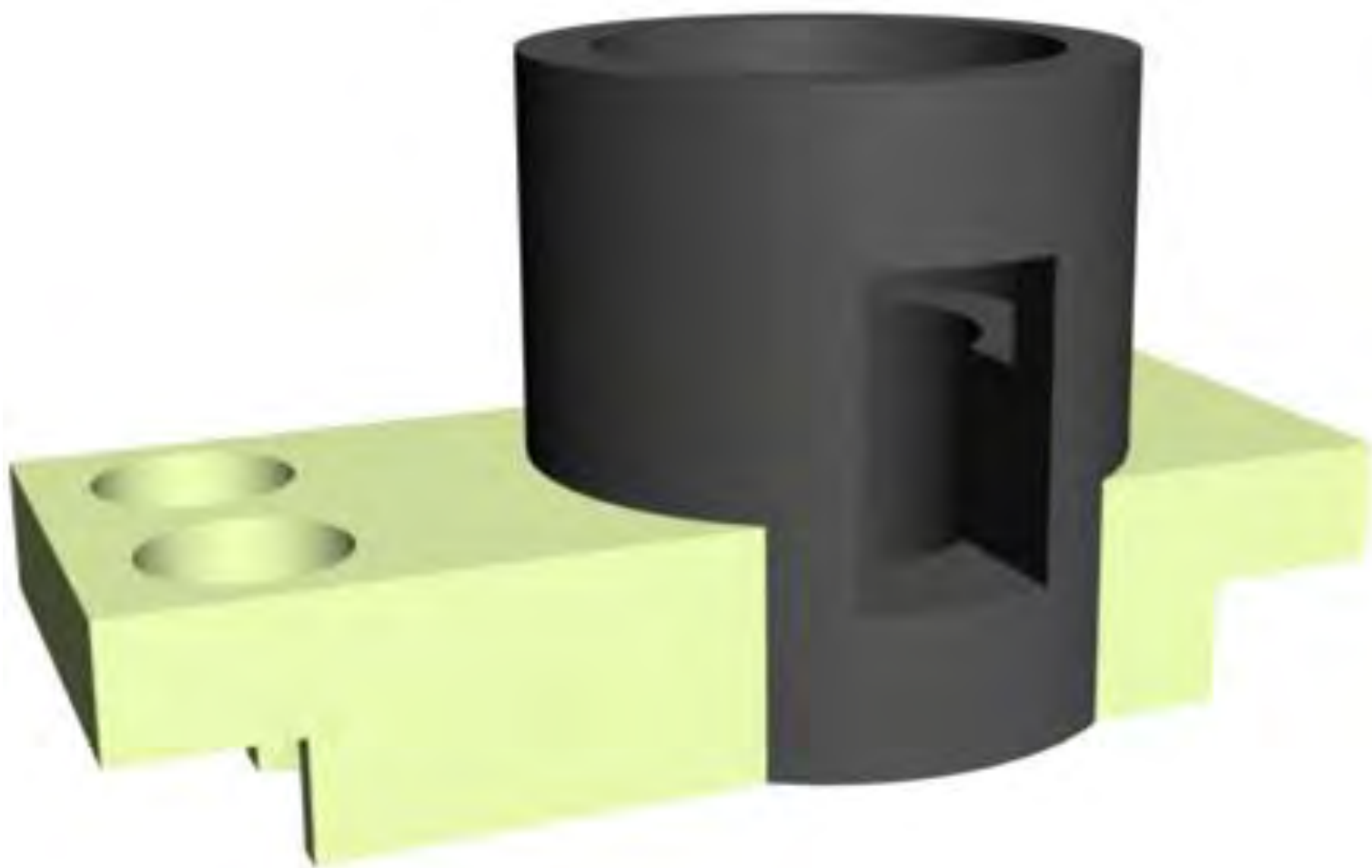
СОДЕРЖАНИЕ



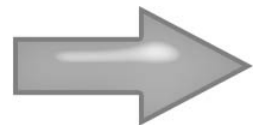
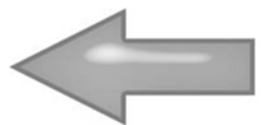


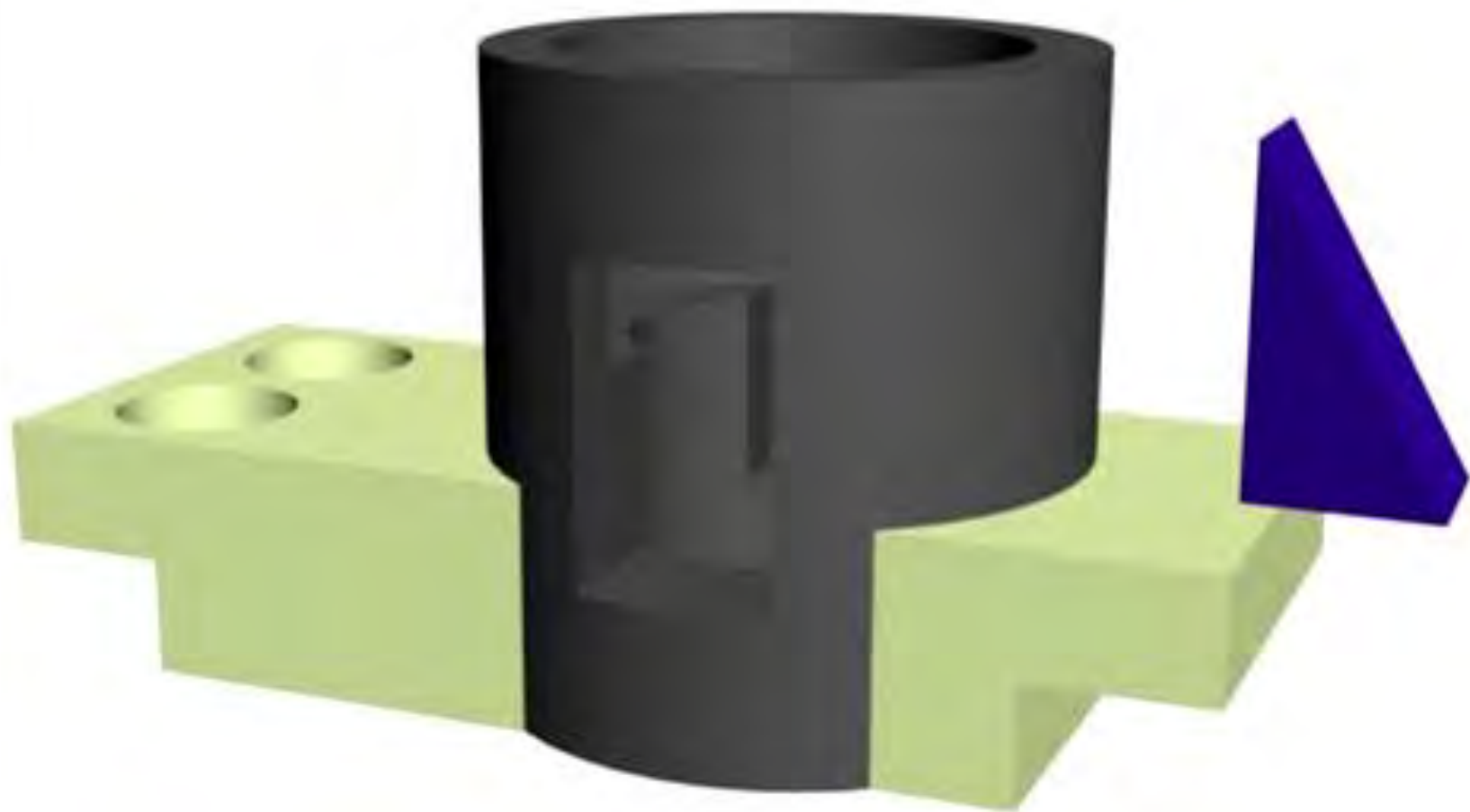
СОДЕРЖАНИЕ



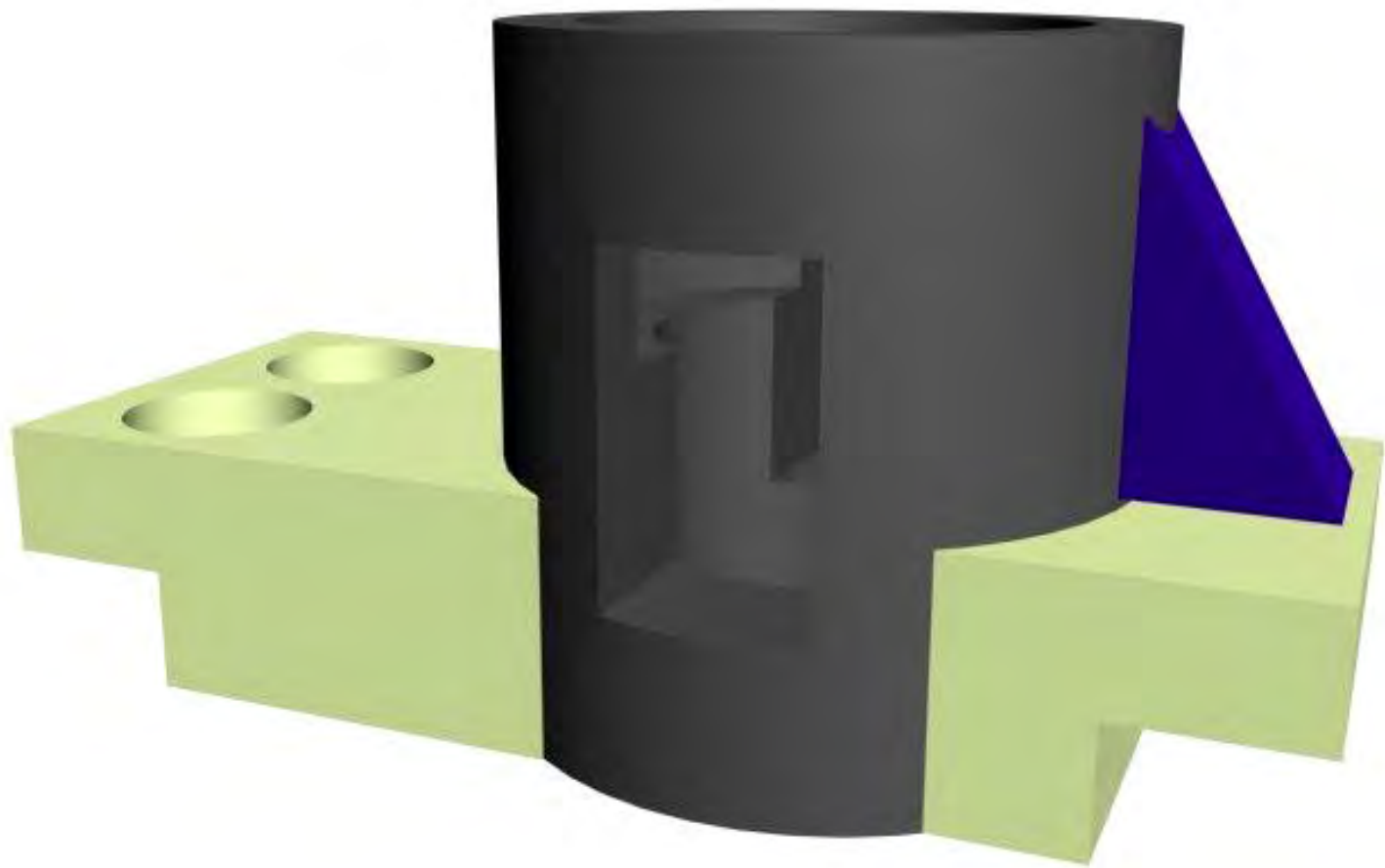


СОДЕРЖАНИЕ

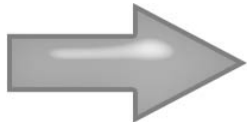
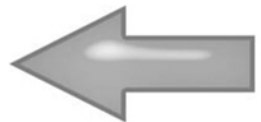


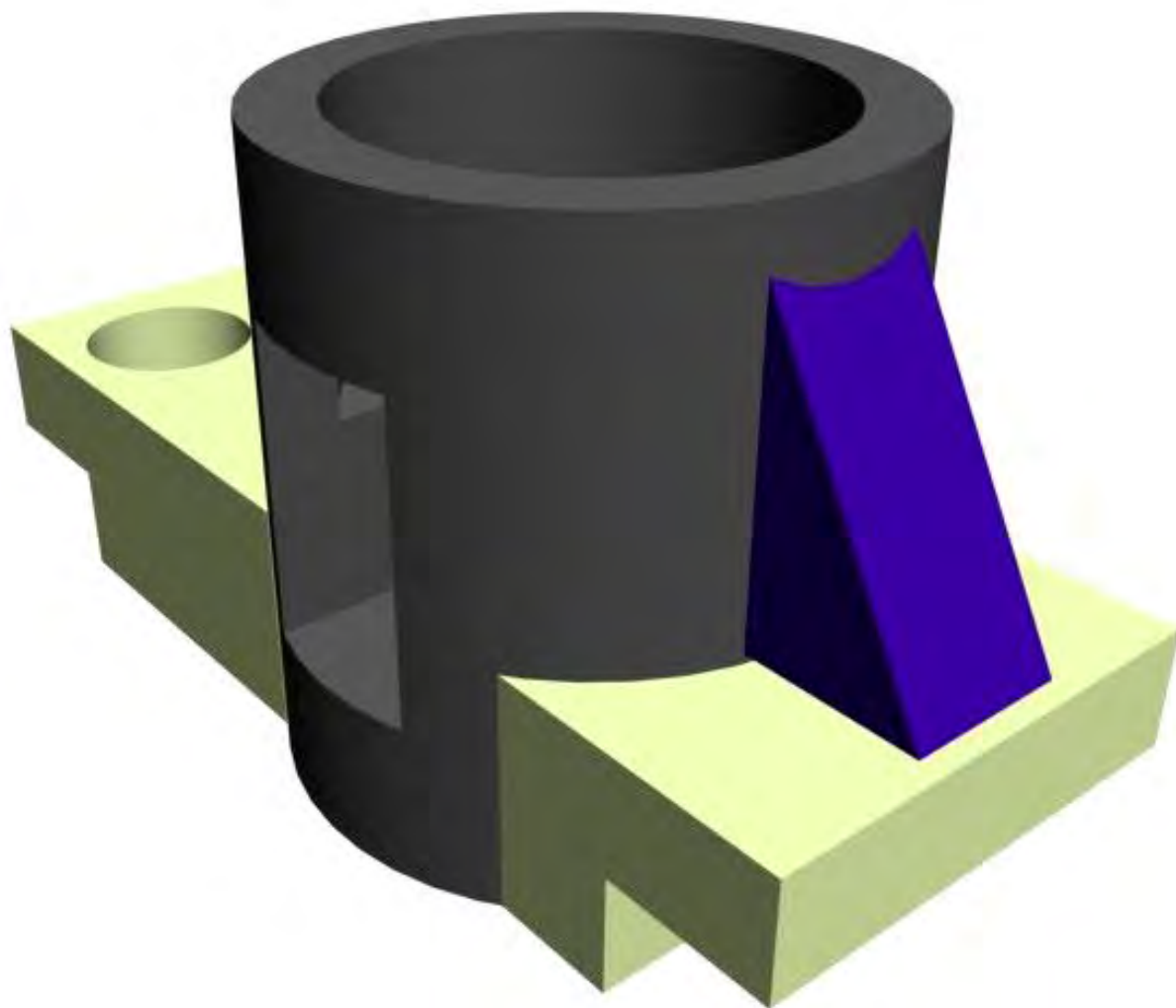


СОДЕРЖАНИЕ

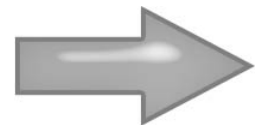
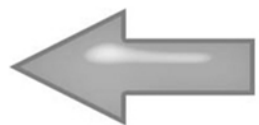


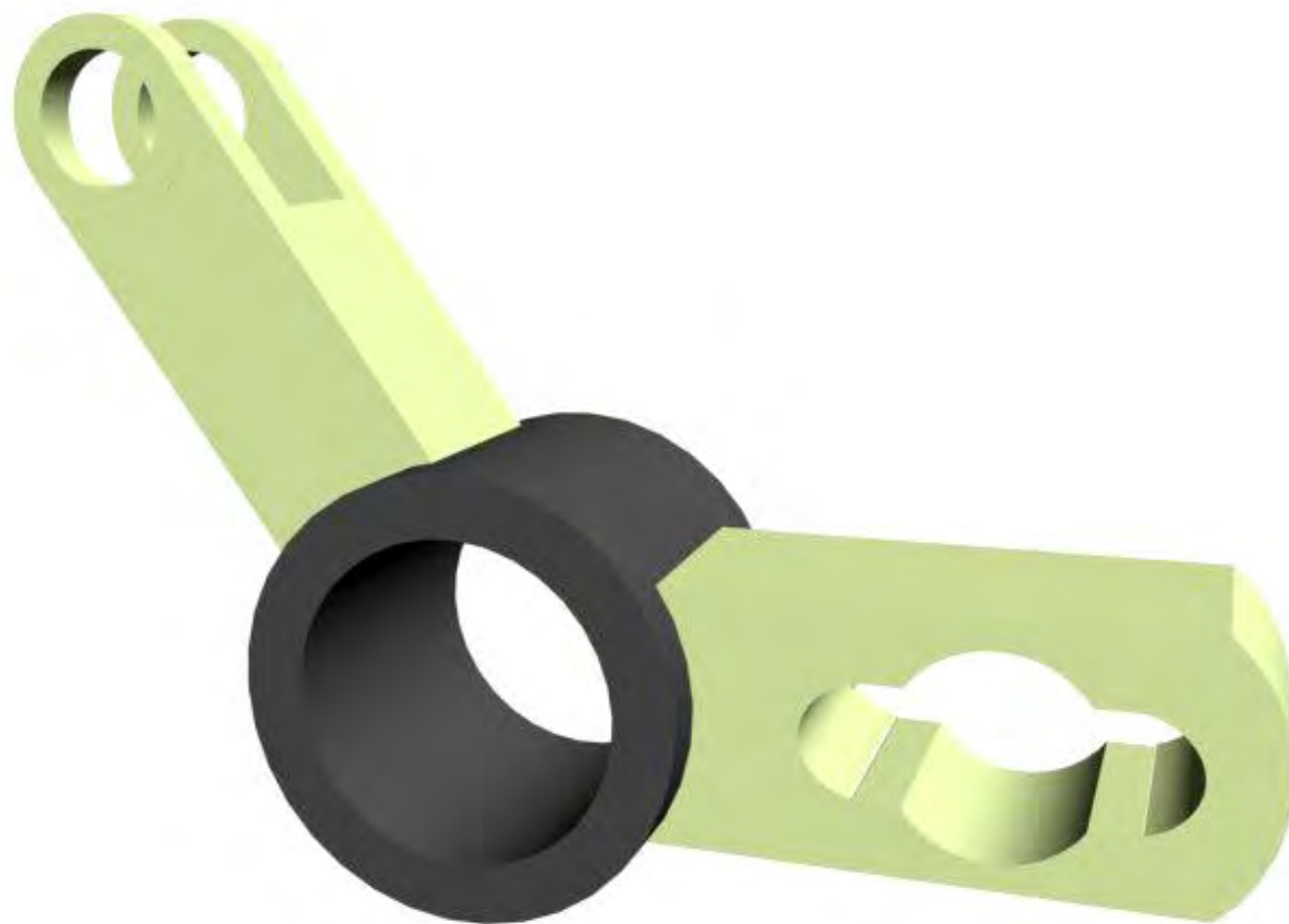
СОДЕРЖАНИЕ



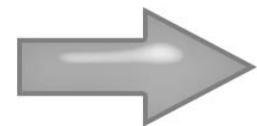
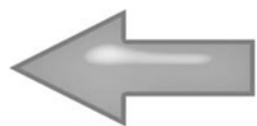


СОДЕРЖАНИЕ



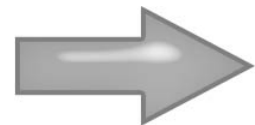
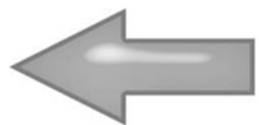


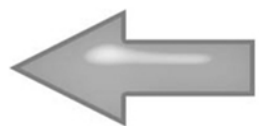
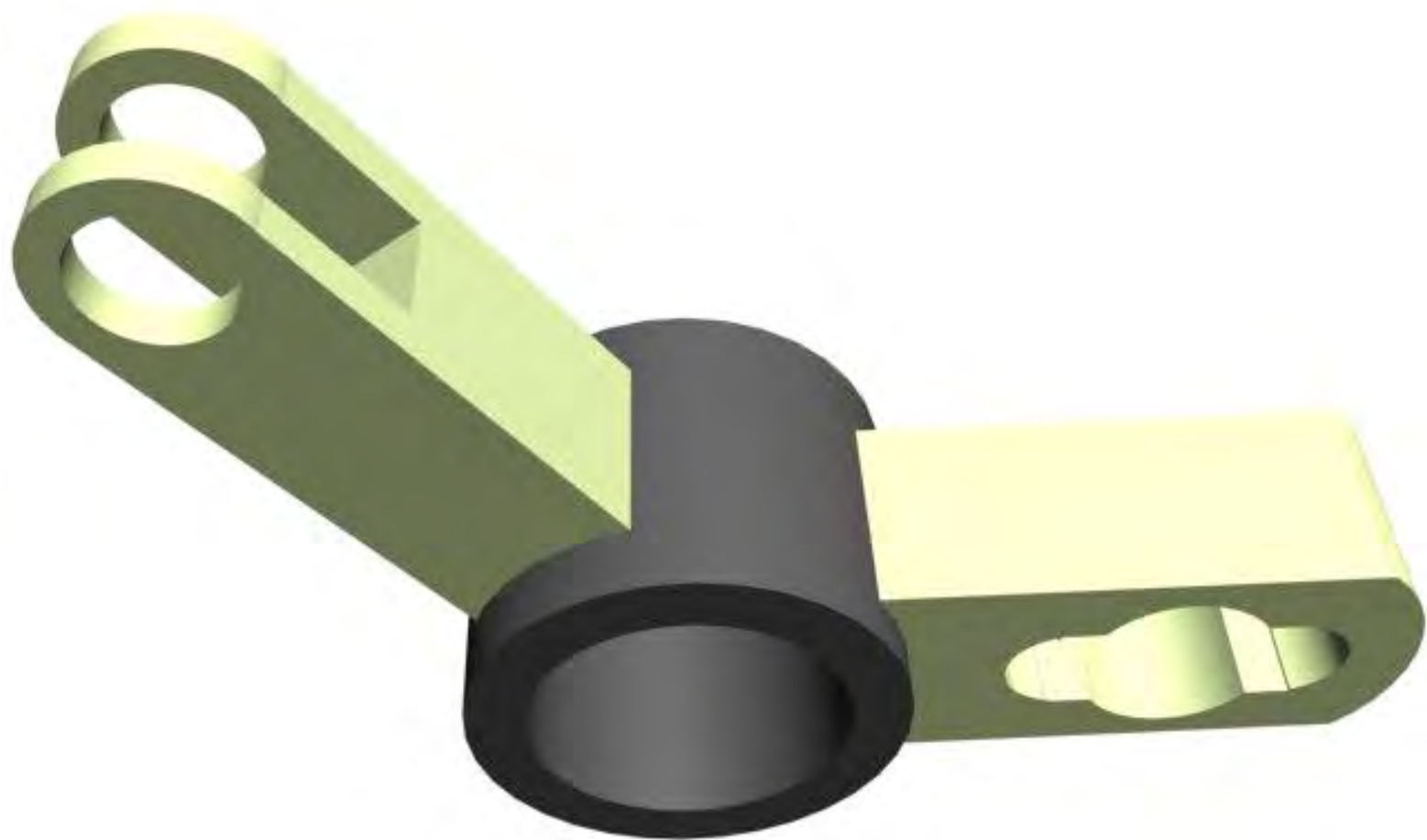
СОДЕРЖАНИЕ



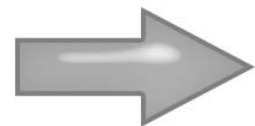


СОДЕРЖАНИЕ



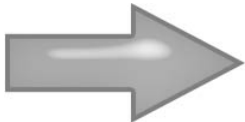
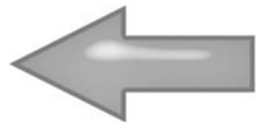


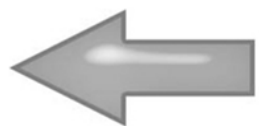
СОДЕРЖАНИЕ



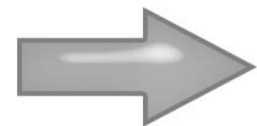


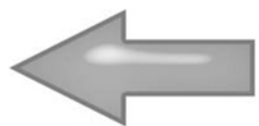
СОДЕРЖАНИЕ



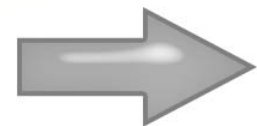


СОДЕРЖАНИЕ



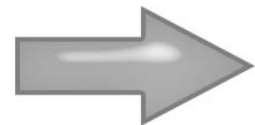
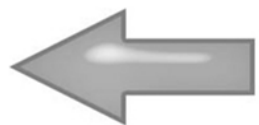


СОДЕРЖАНИЕ



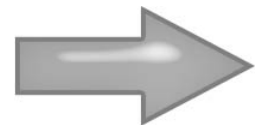
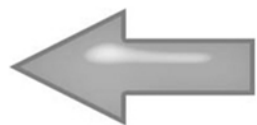


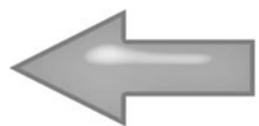
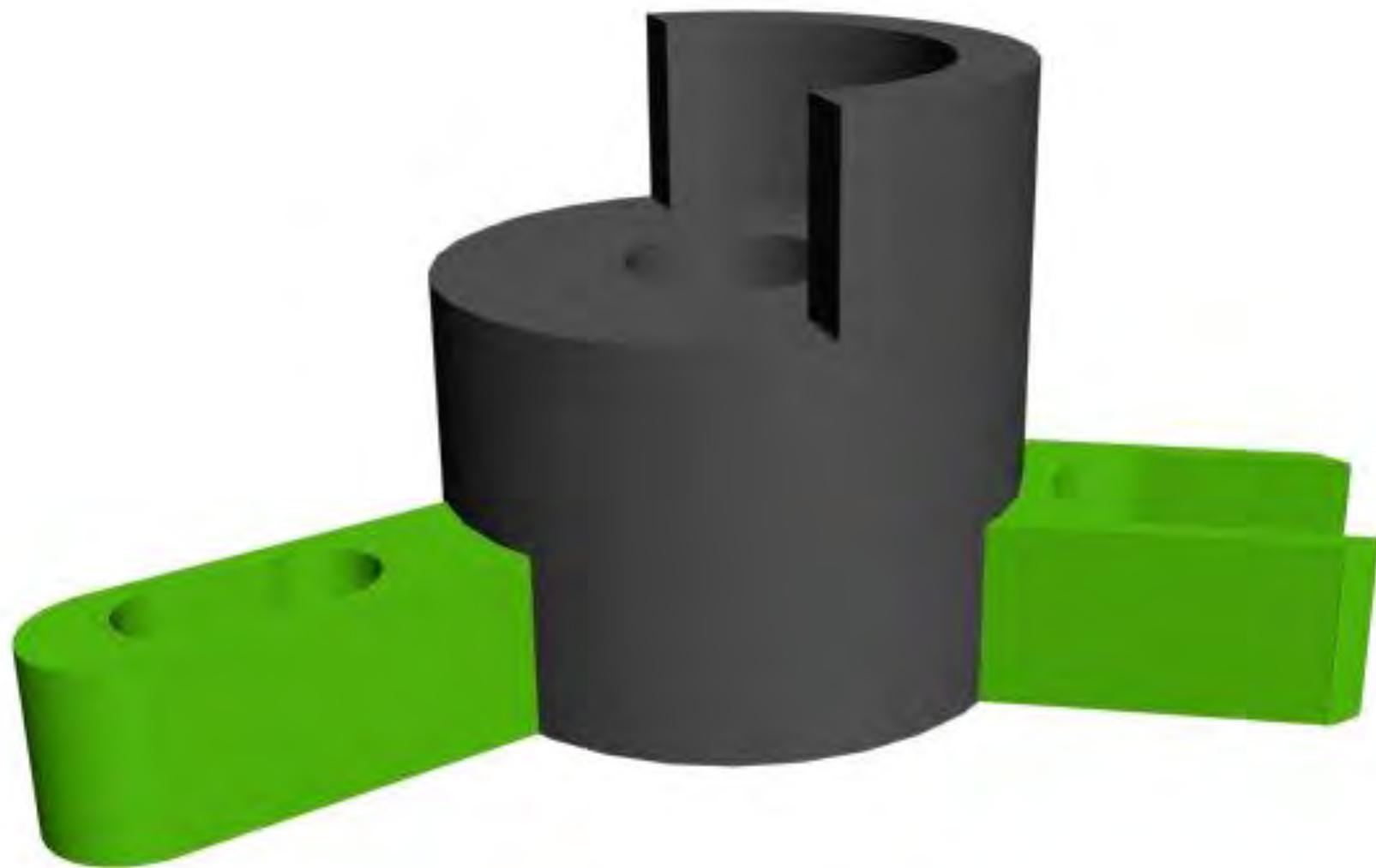
СОДЕРЖАНИЕ



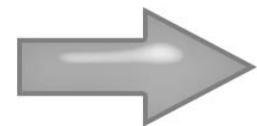


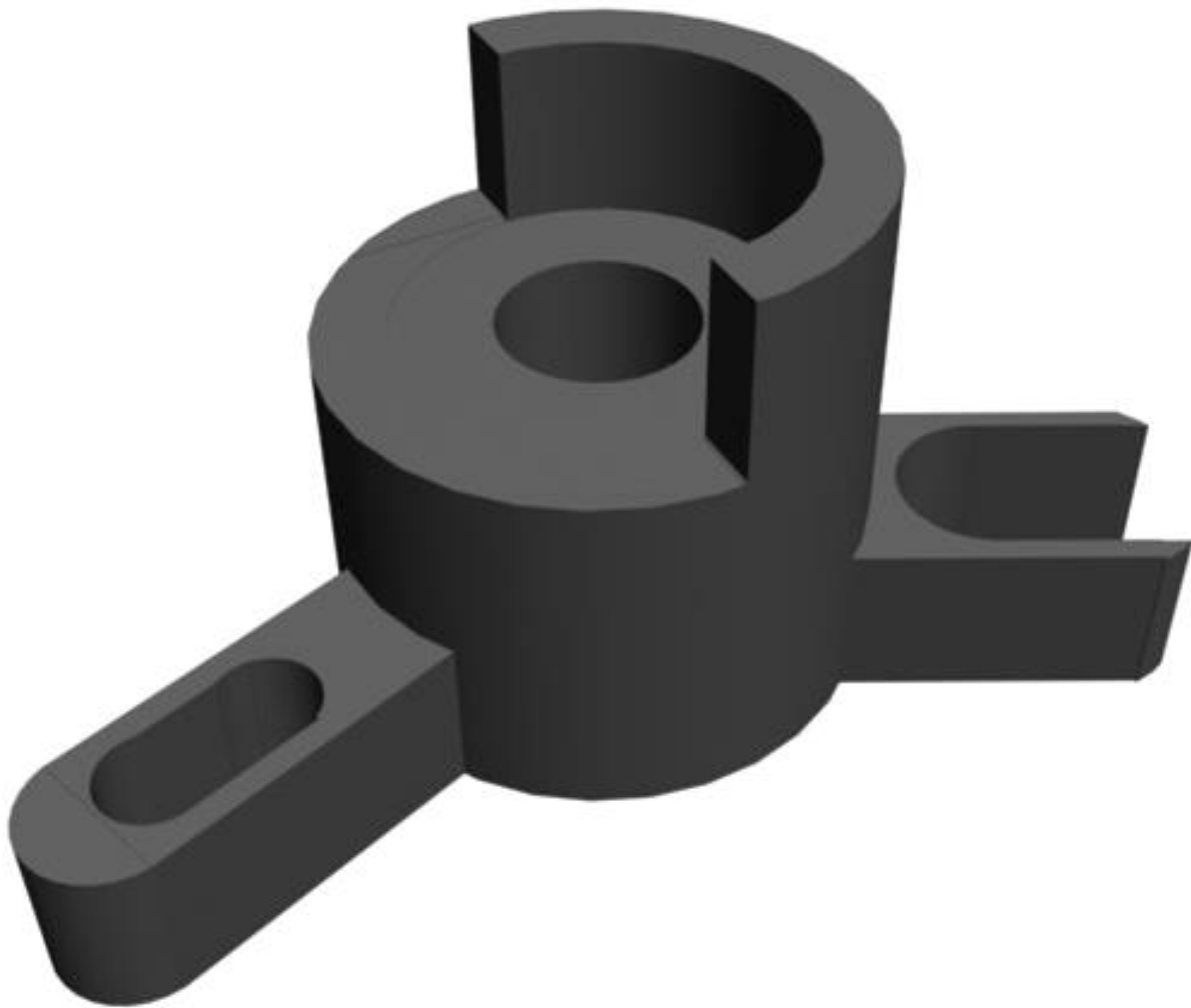
СОДЕРЖАНИЕ



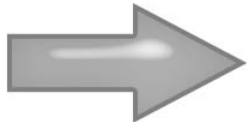
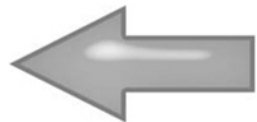


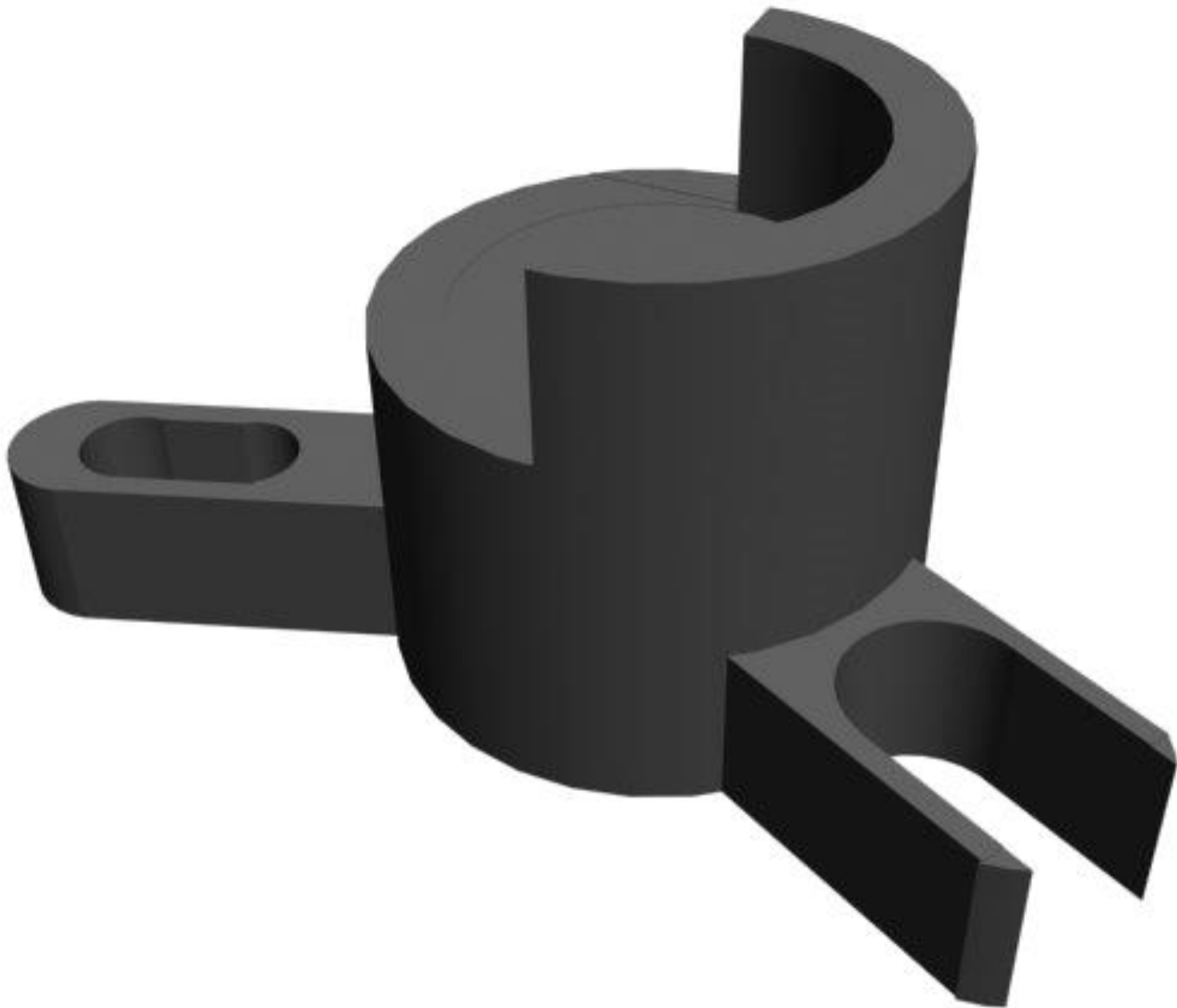
СОДЕРЖАНИЕ



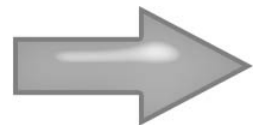
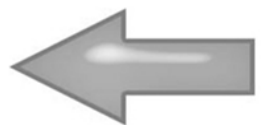


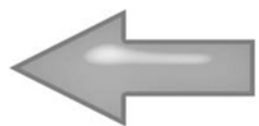
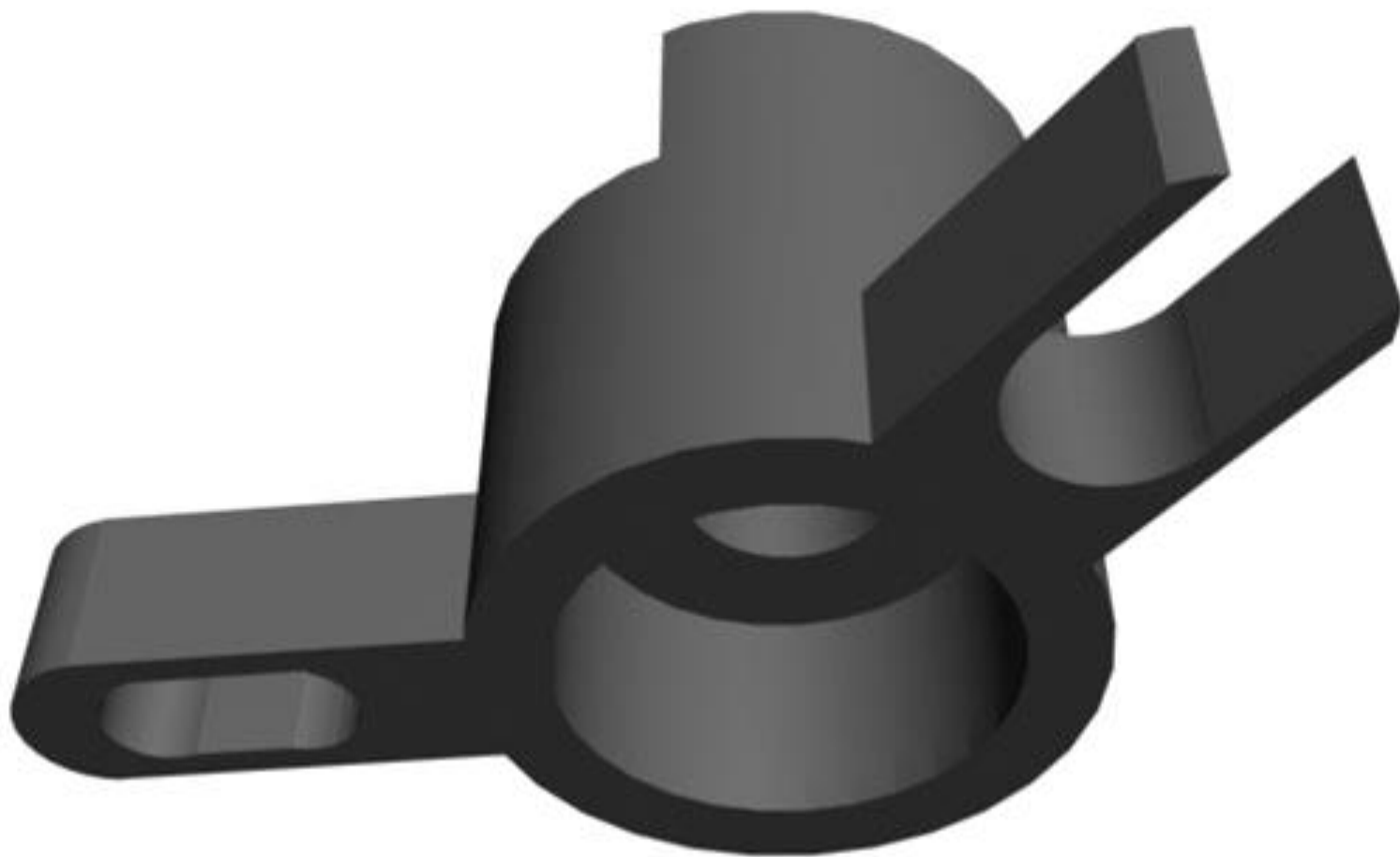
СОДЕРЖАНИЕ



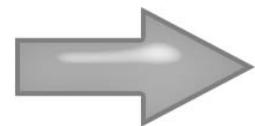


СОДЕРЖАНИЕ

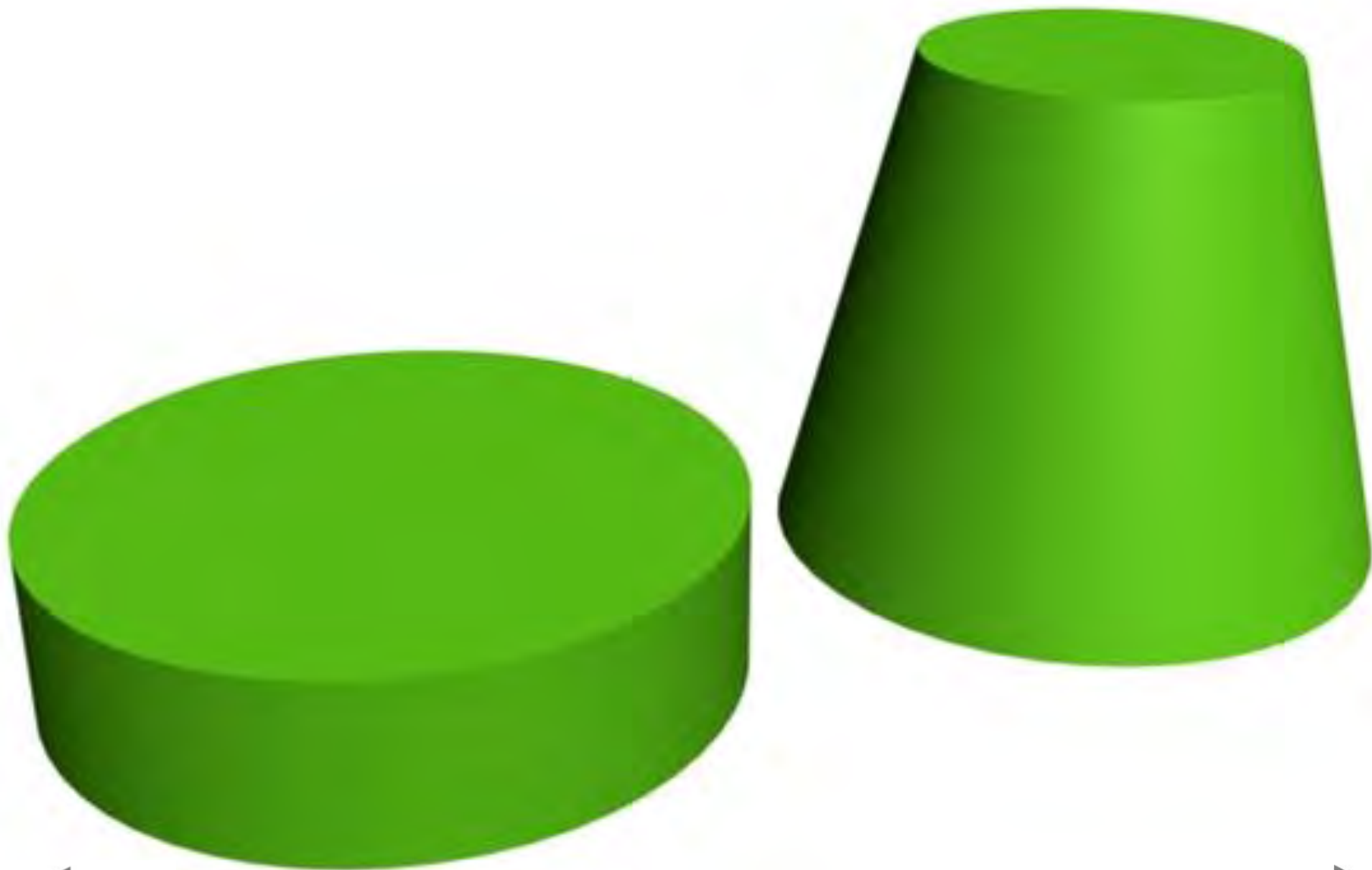




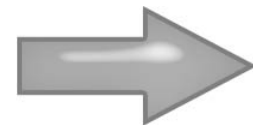
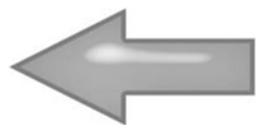
СОДЕРЖАНИЕ



Задача № 5. МОДЕЛЬ СО СКВОЗНЫМИ ОТВЕРСТИЯМИ

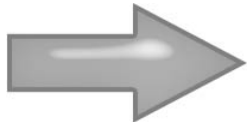
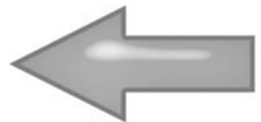


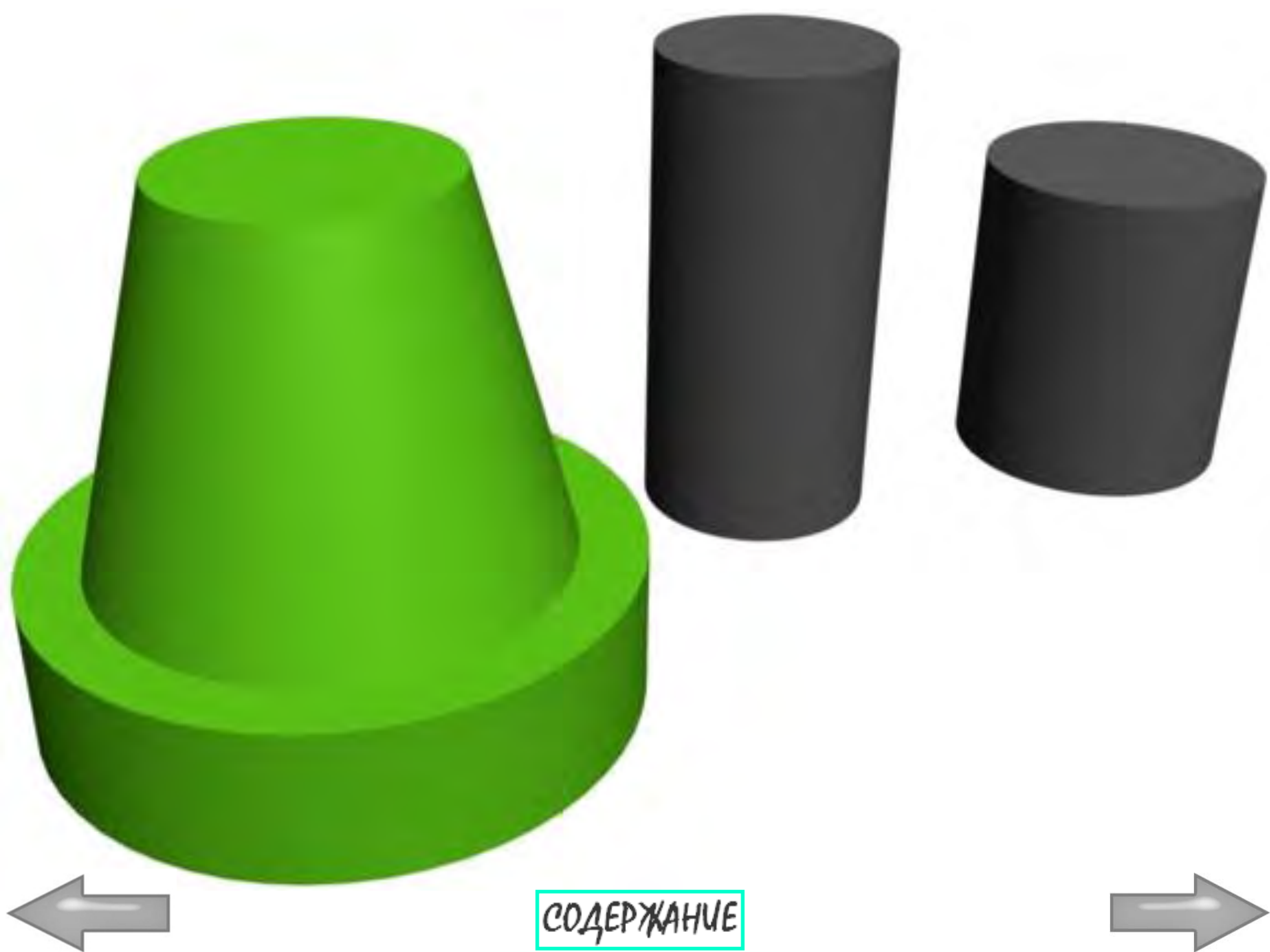
СОДЕРЖАНИЕ





СОДЕРЖАНИЕ





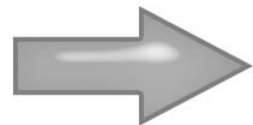
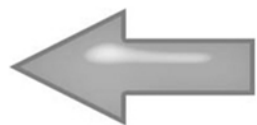
СОДЕРЖАНИЕ

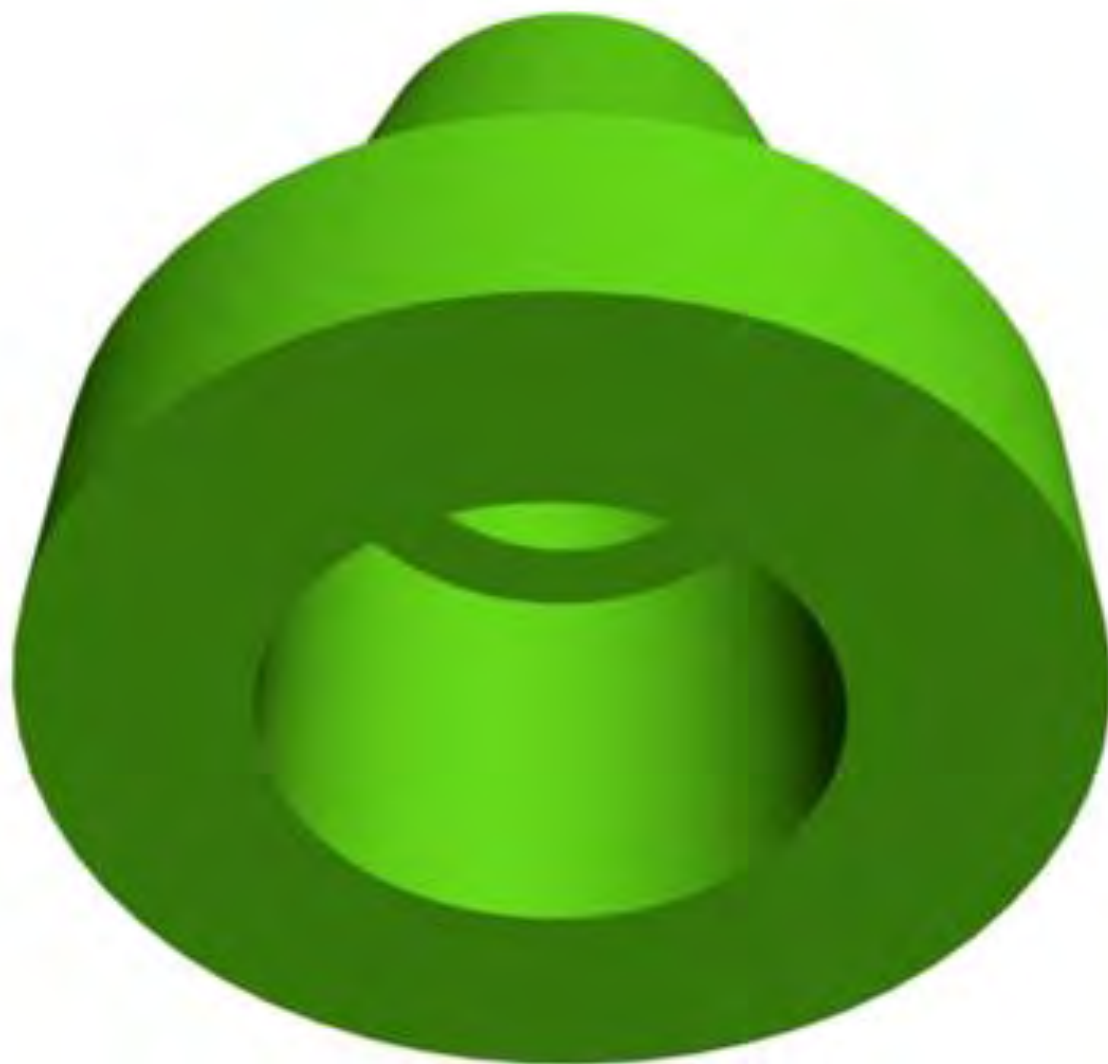


СОДЕРЖАНИЕ

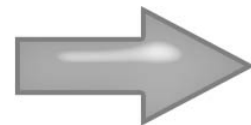
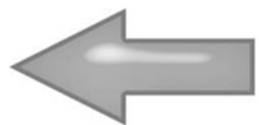


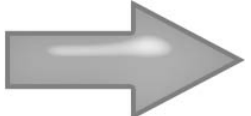
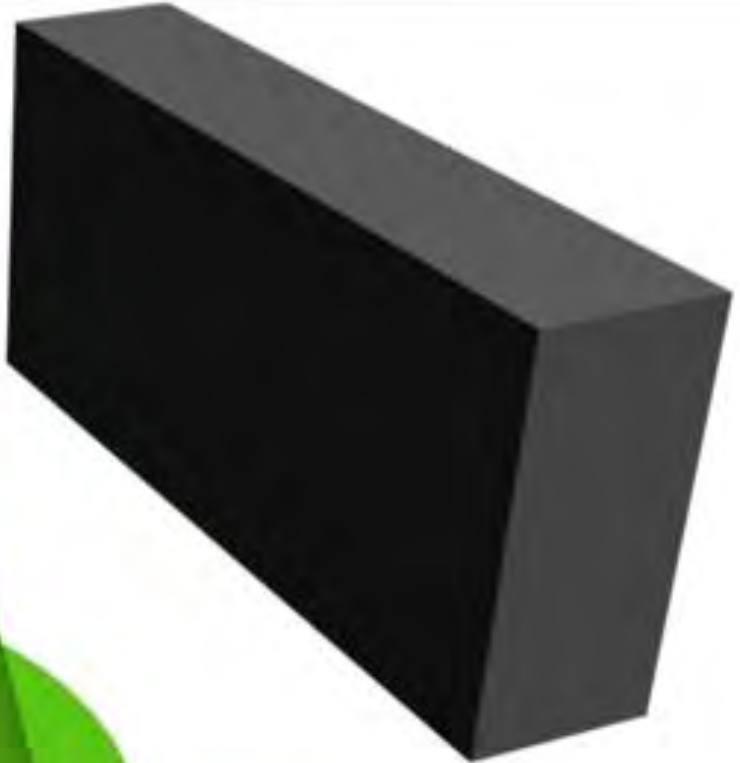
СОДЕРЖАНИЕ



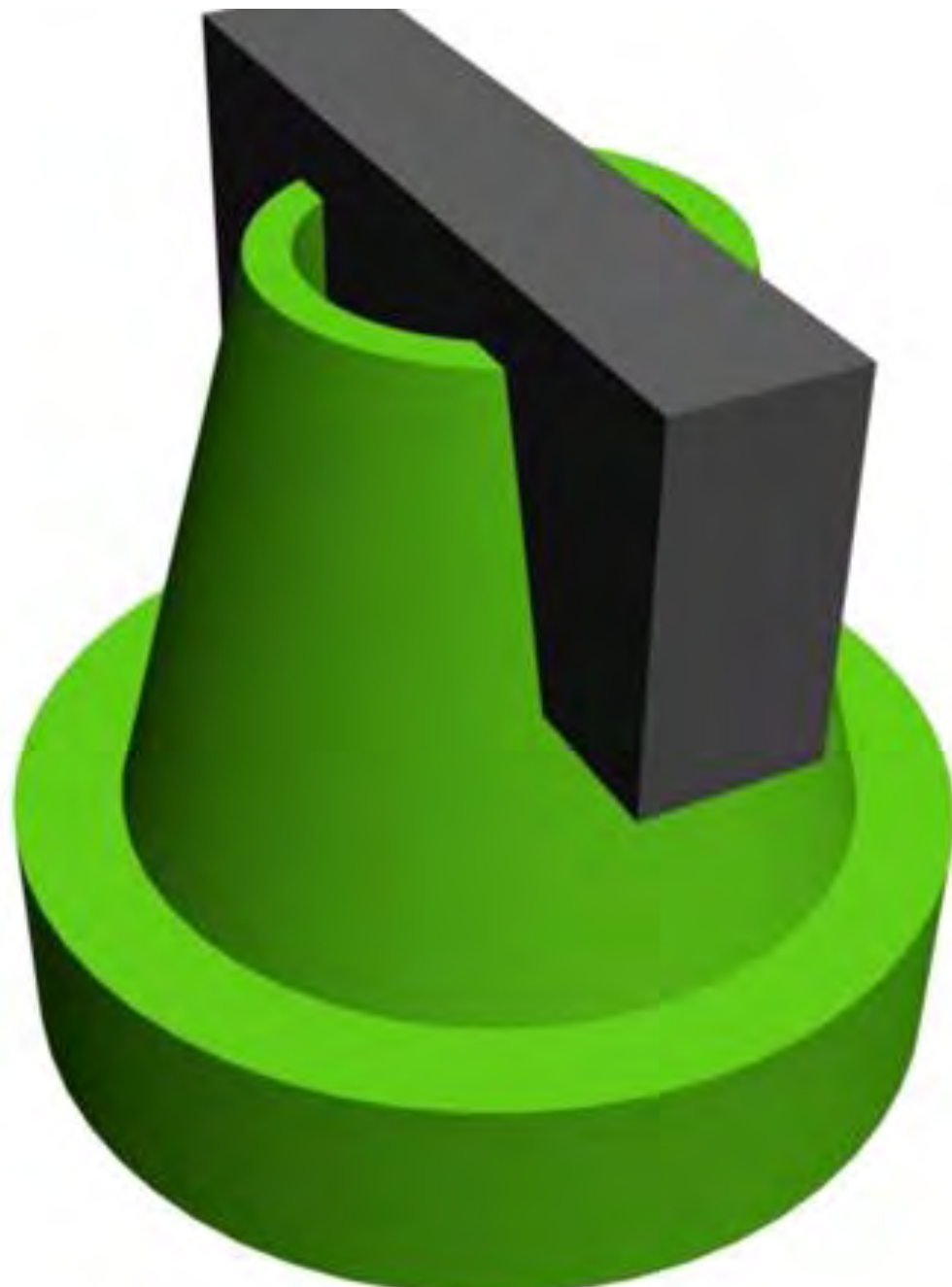


СОДЕРЖАНИЕ

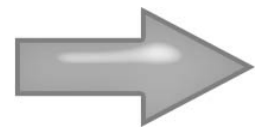
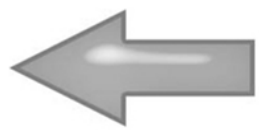




СОДЕРЖАНИЕ

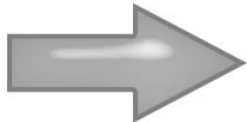
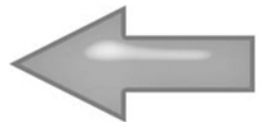


СОДЕРЖАНИЕ



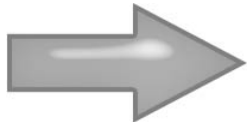
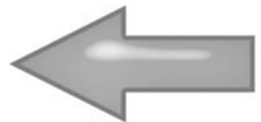


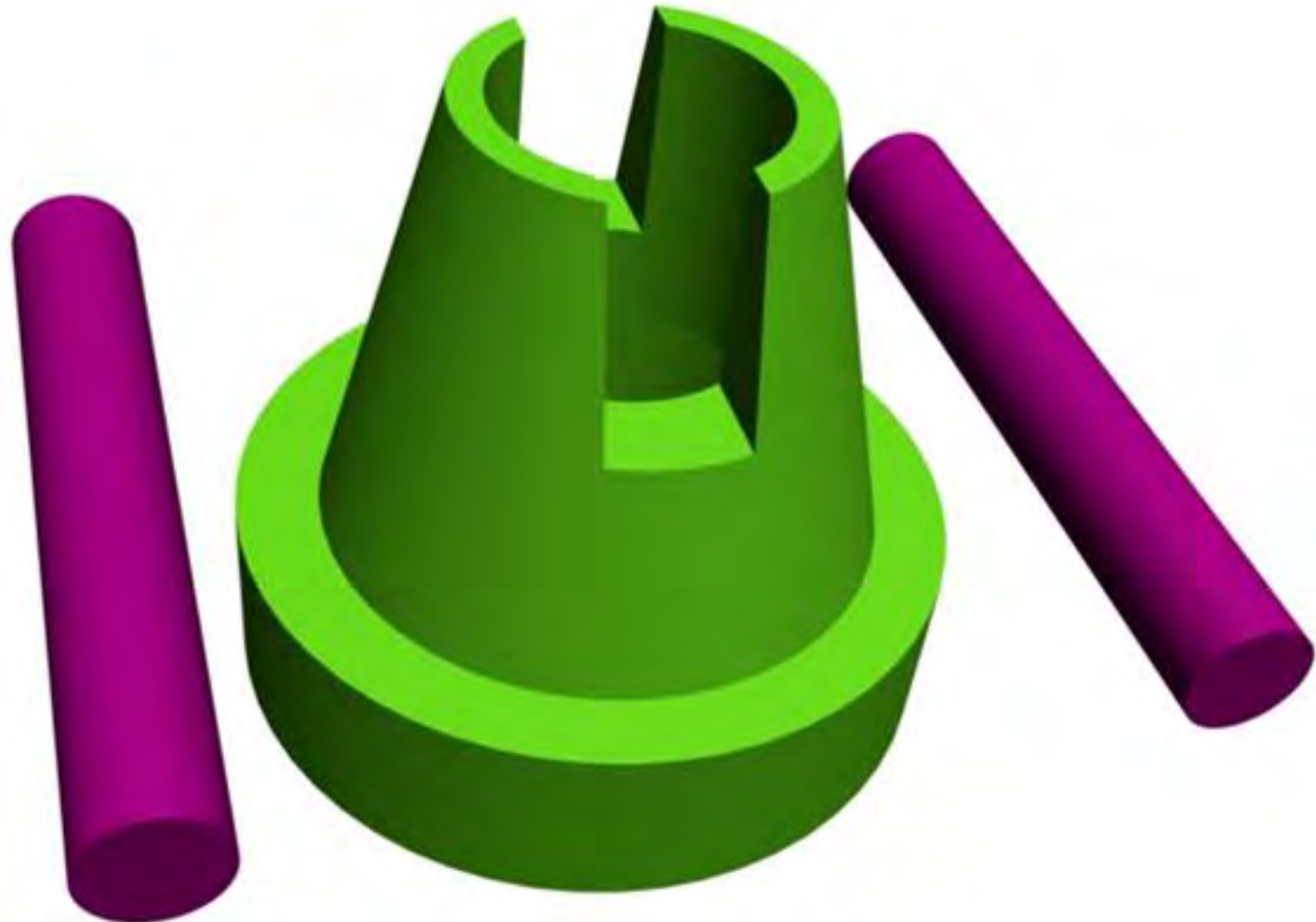
СОДЕРЖАНИЕ



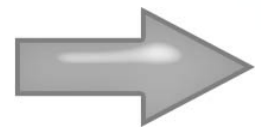
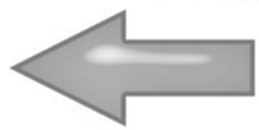


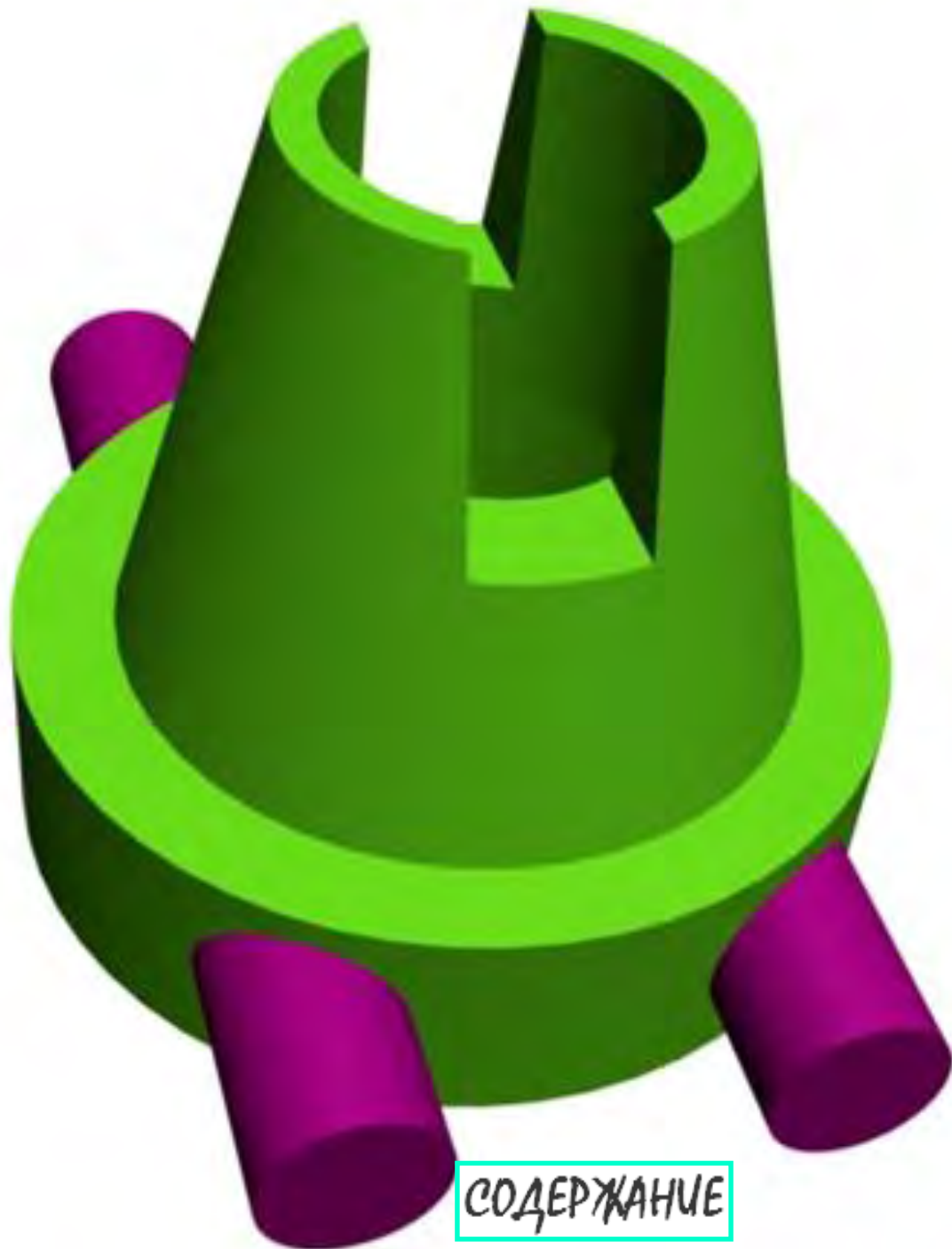
СОДЕРЖАНИЕ





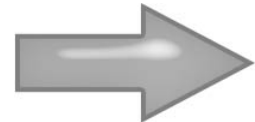
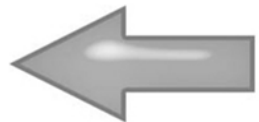
СОДЕРЖАНИЕ





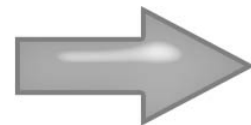
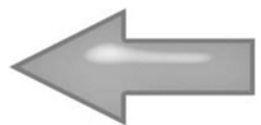


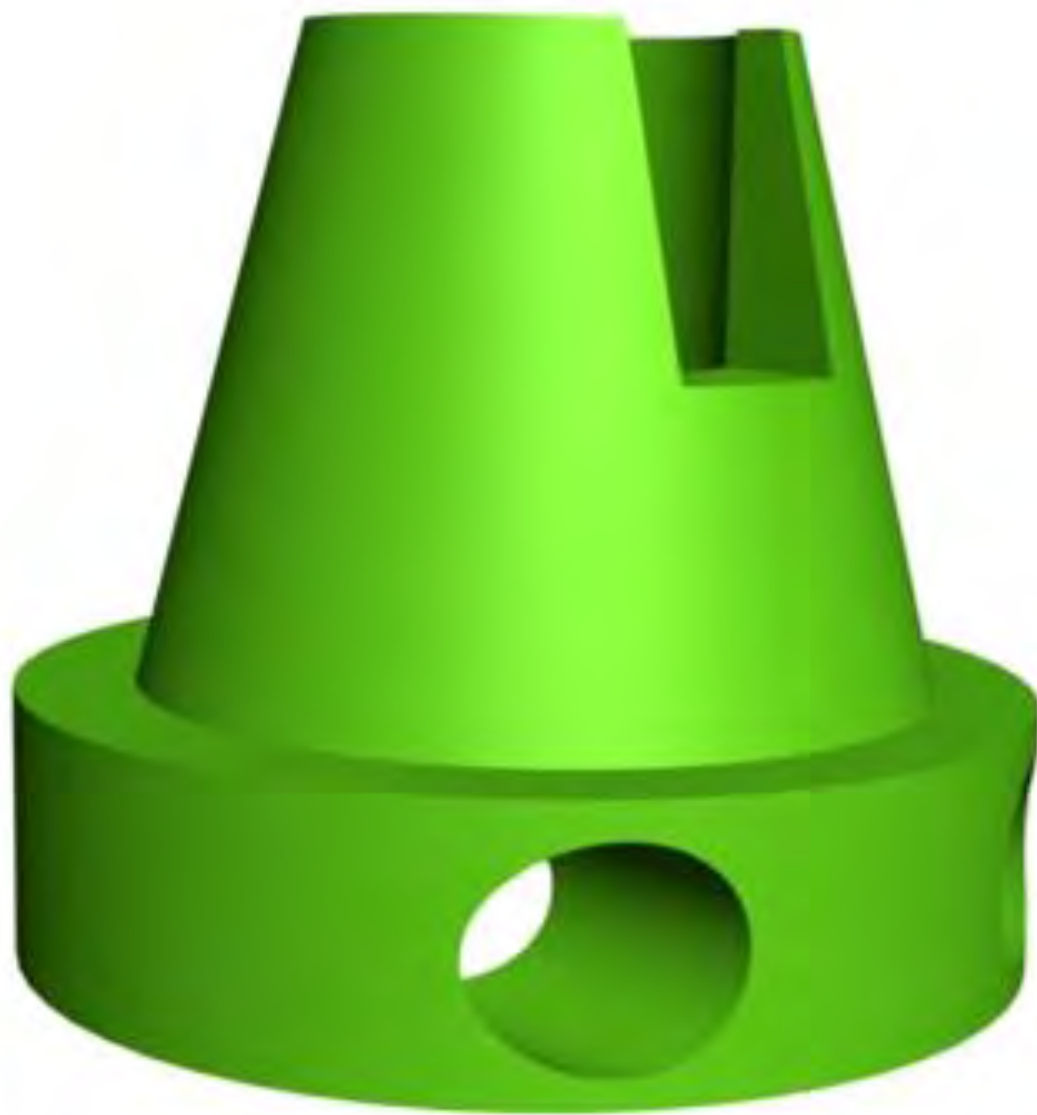
СОДЕРЖАНИЕ



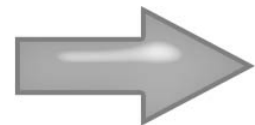
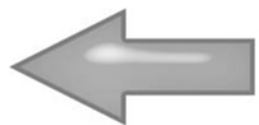


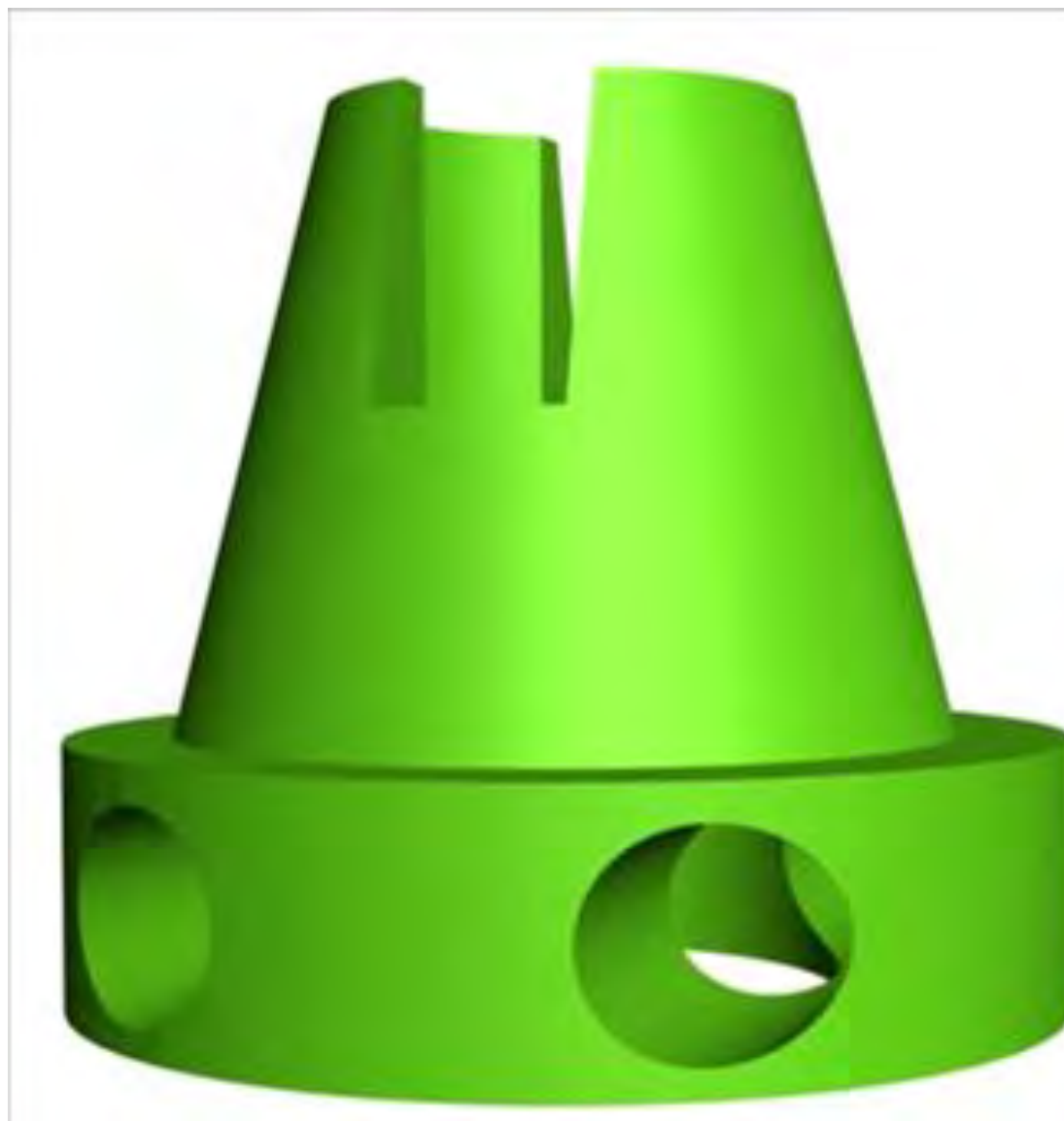
СОДЕРЖАНИЕ



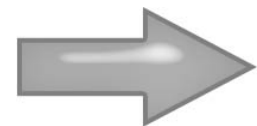
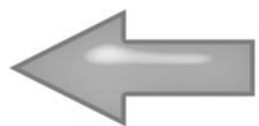


СОДЕРЖАНИЕ



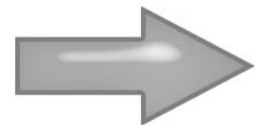
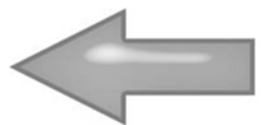


СОДЕРЖАНИЕ



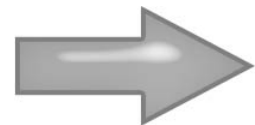
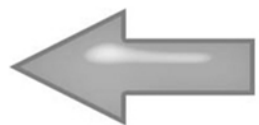


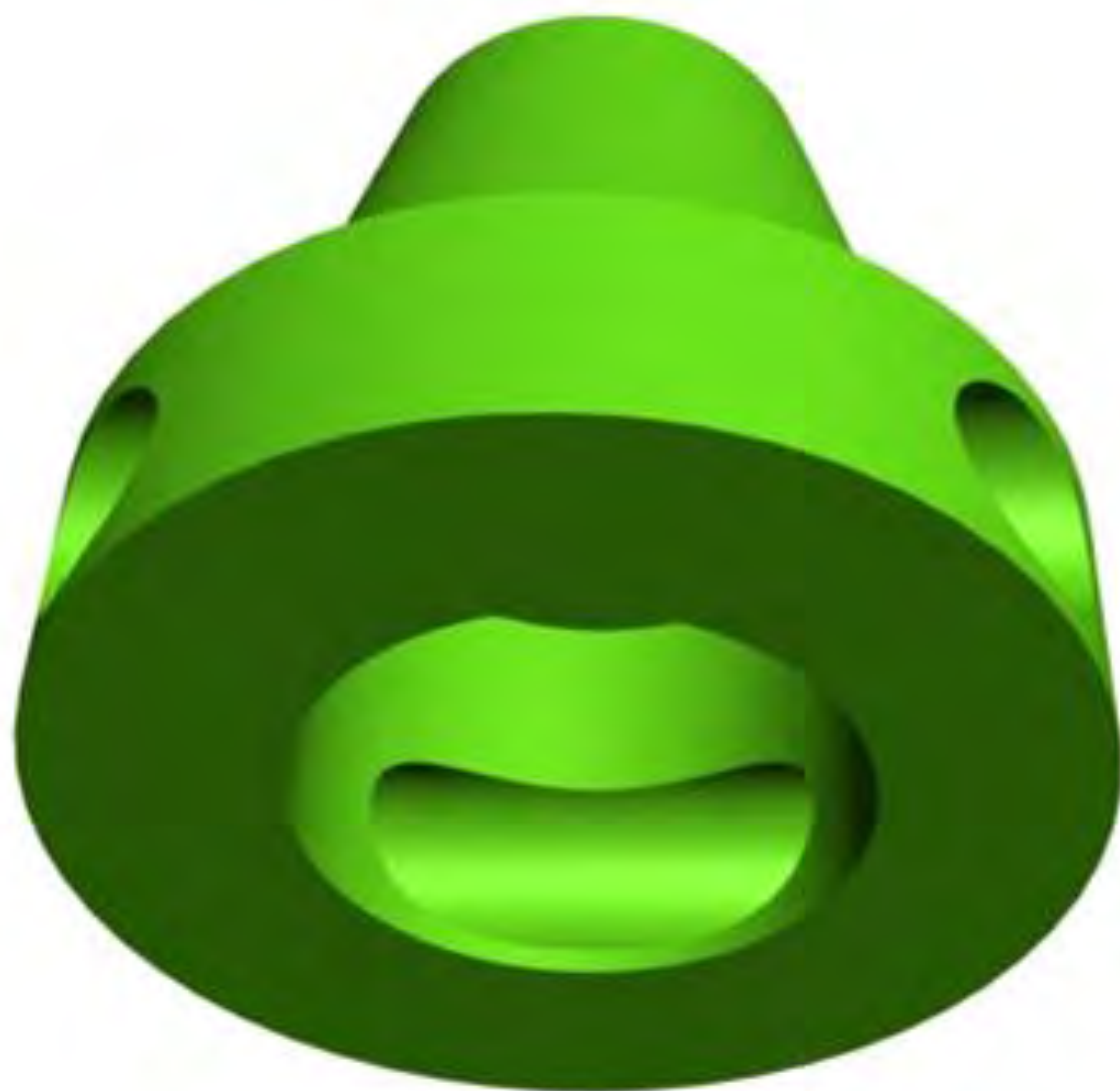
СОДЕРЖАНИЕ



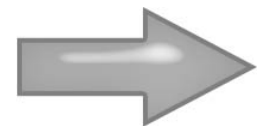


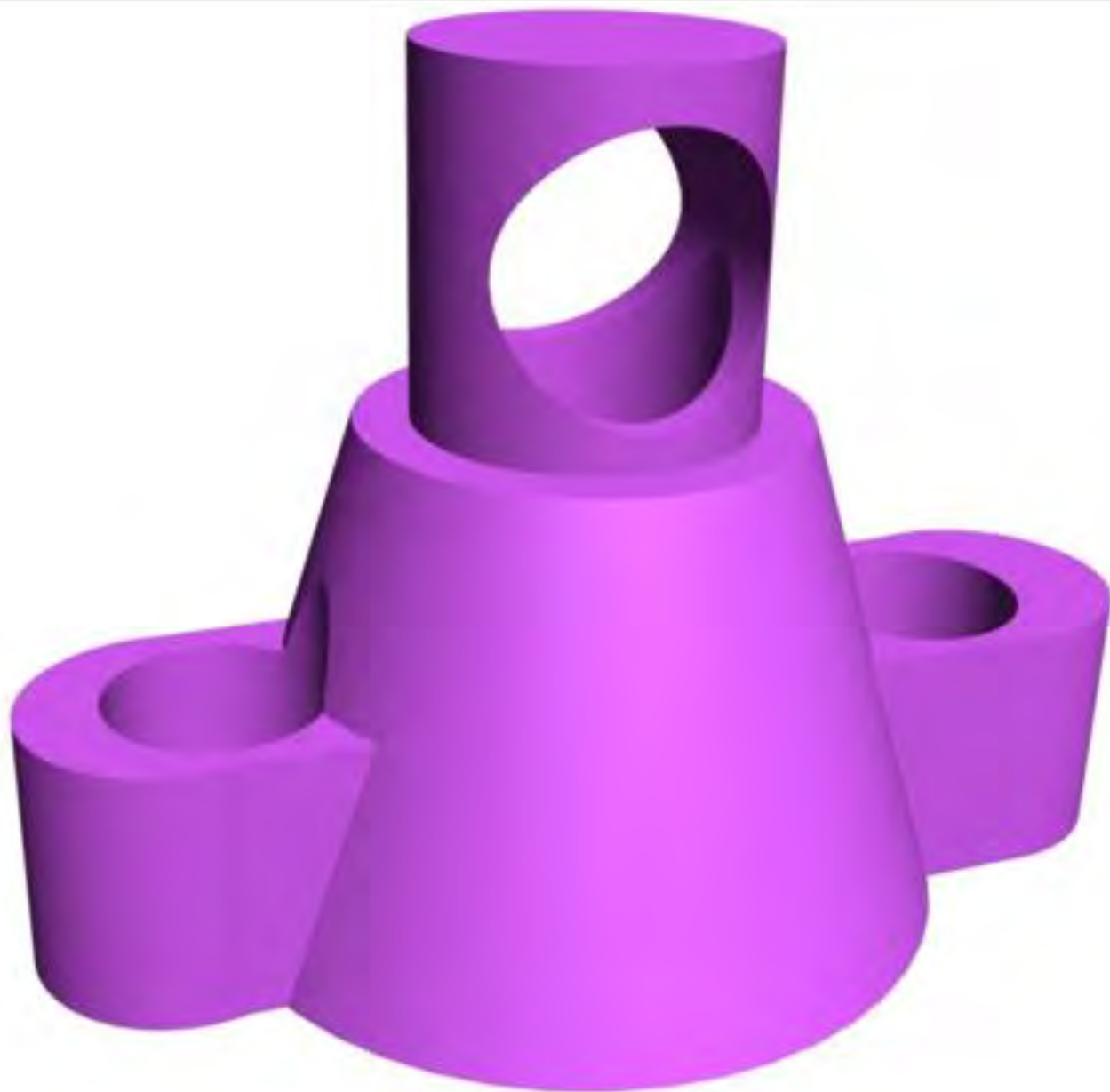
СОДЕРЖАНИЕ



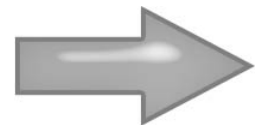
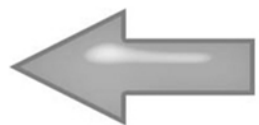


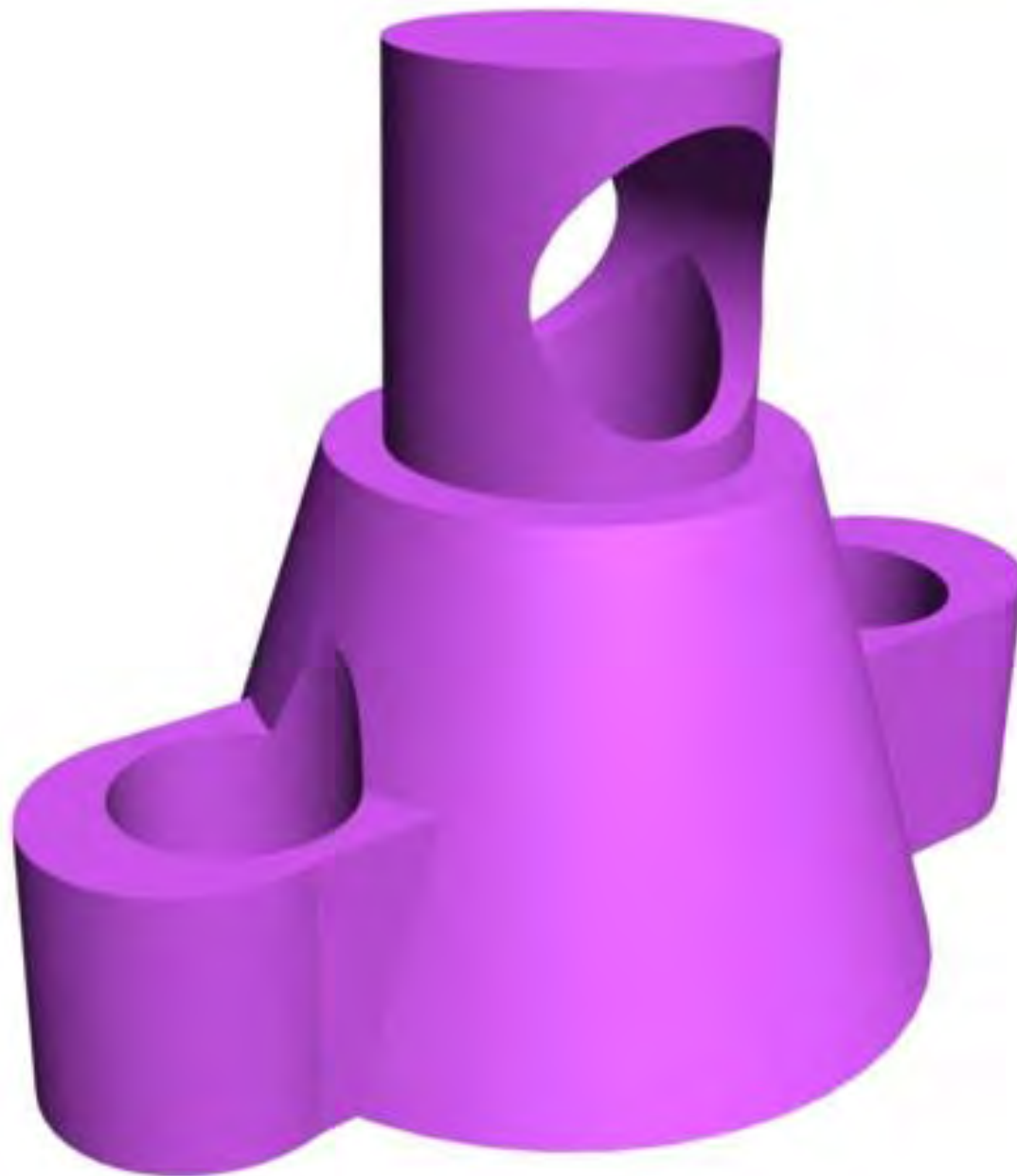
СОДЕРЖАНИЕ



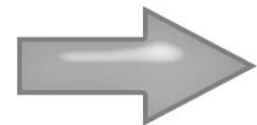
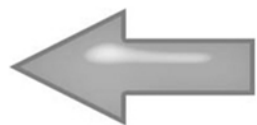


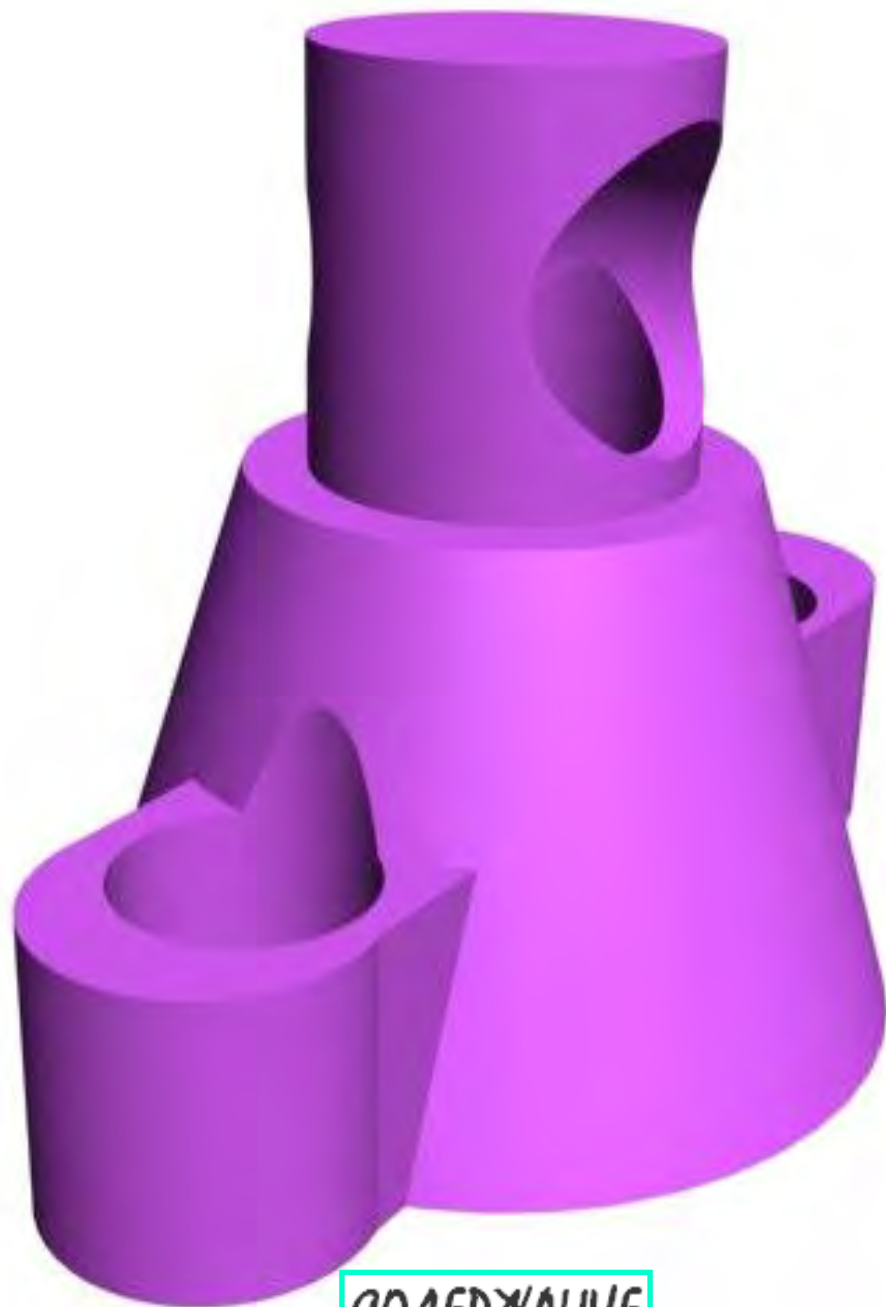
СОДЕРЖАНИЕ



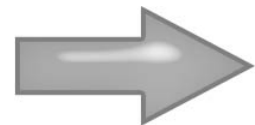
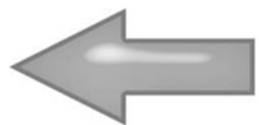


СОДЕРЖАНИЕ



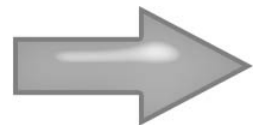
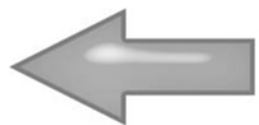


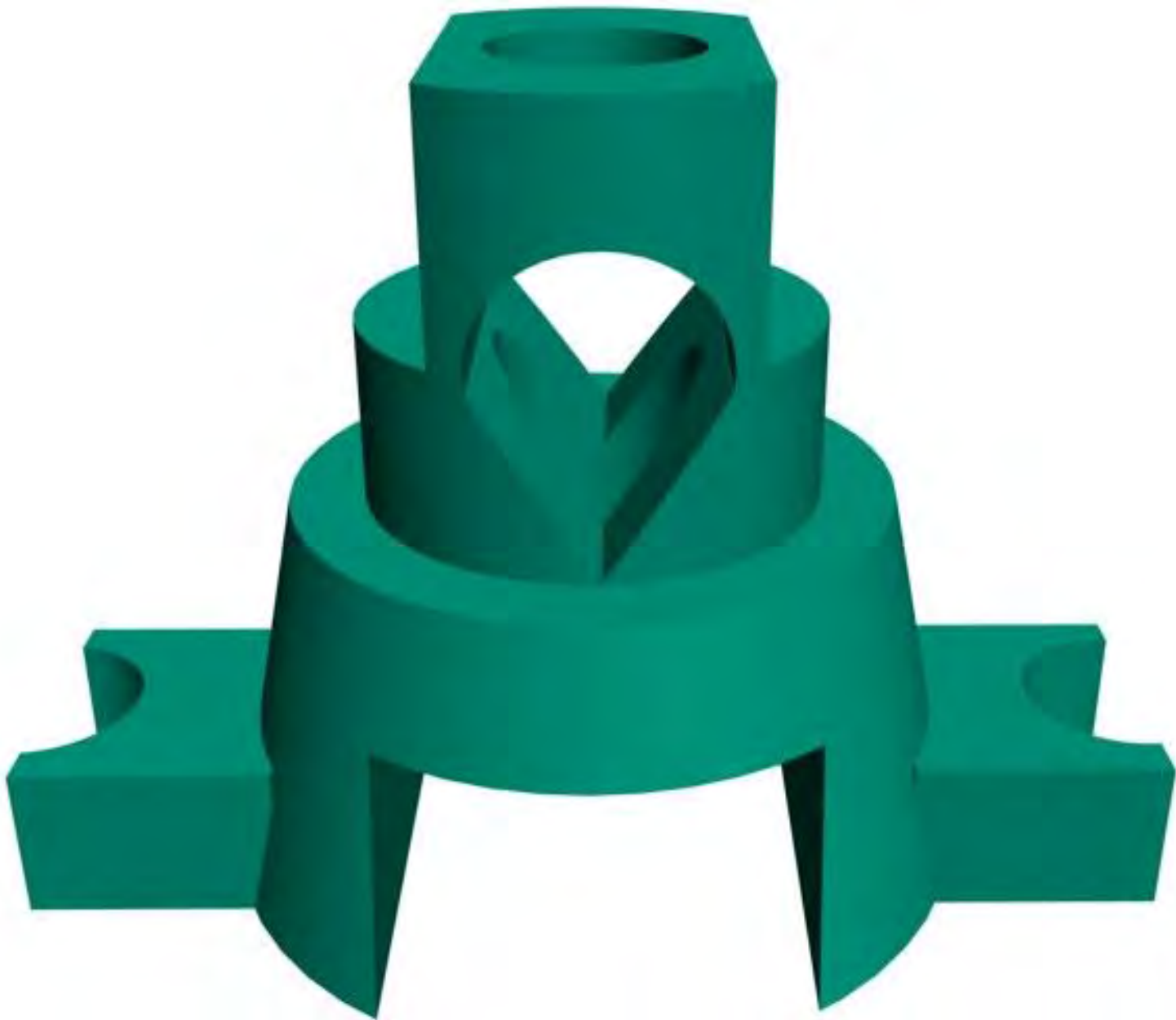
СОДЕРЖАНИЕ



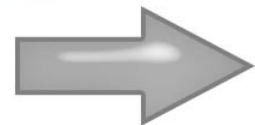
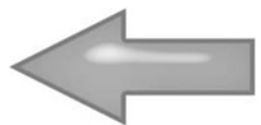


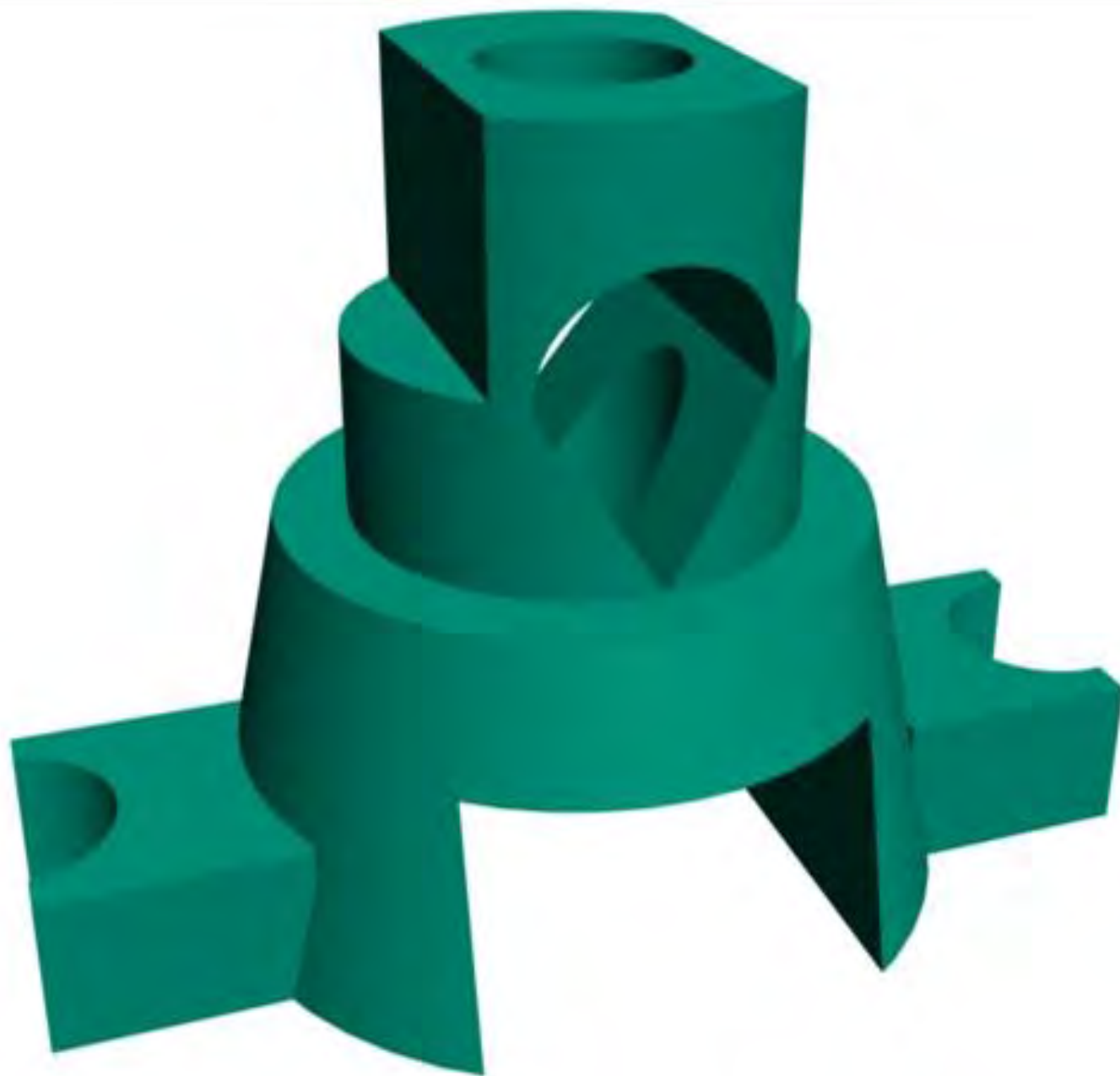
СОДЕРЖАНИЕ



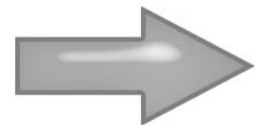
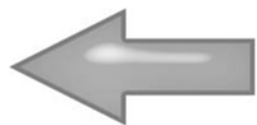


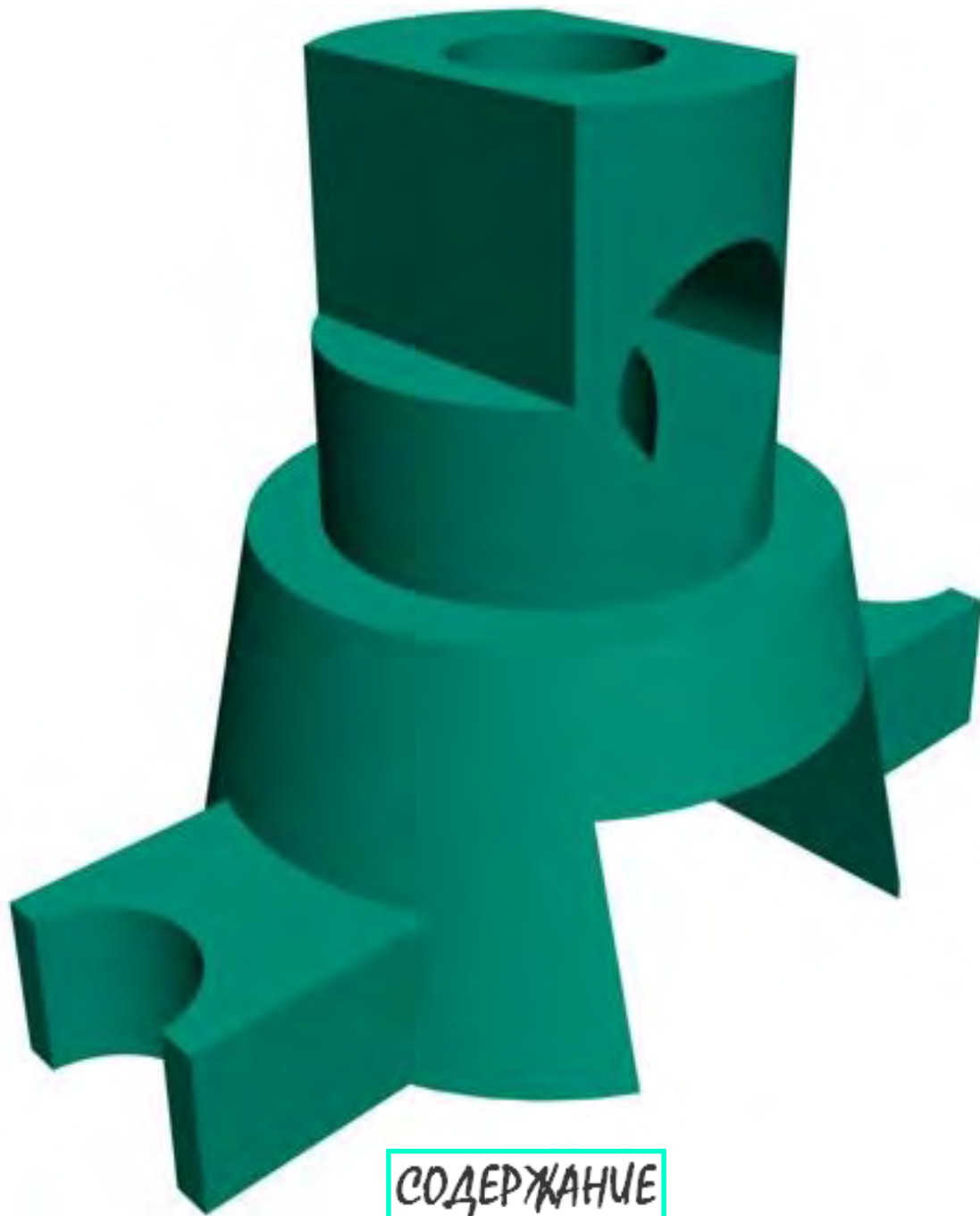
СОДЕРЖАНИЕ





СОДЕРЖАНИЕ

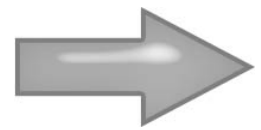
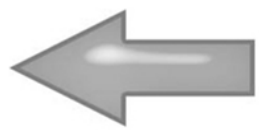


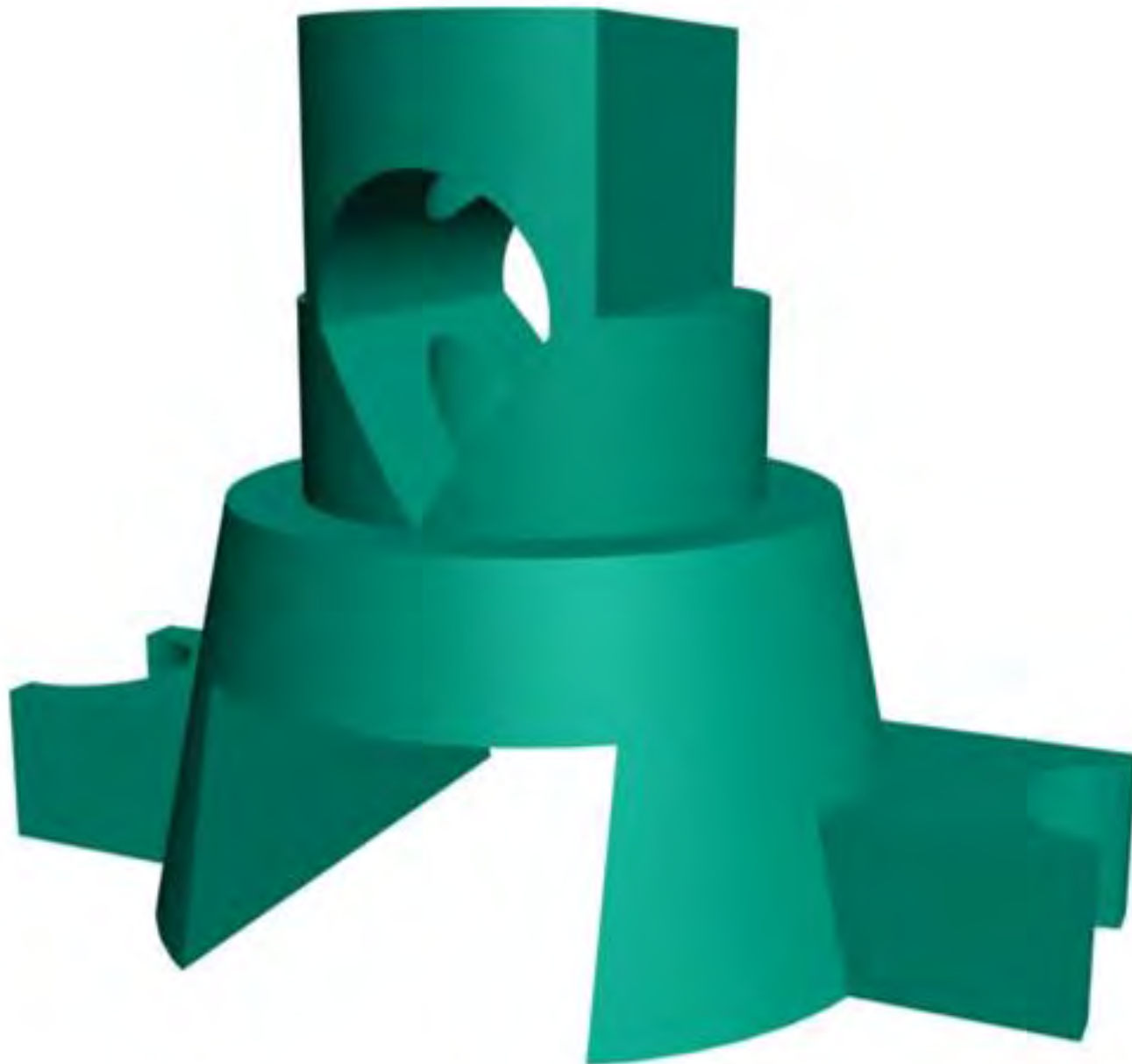


СОДЕРЖАНИЕ

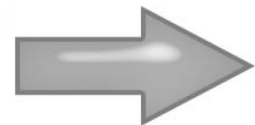
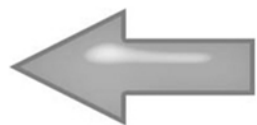


СОДЕРЖАНИЕ



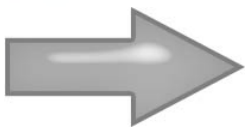
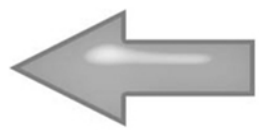


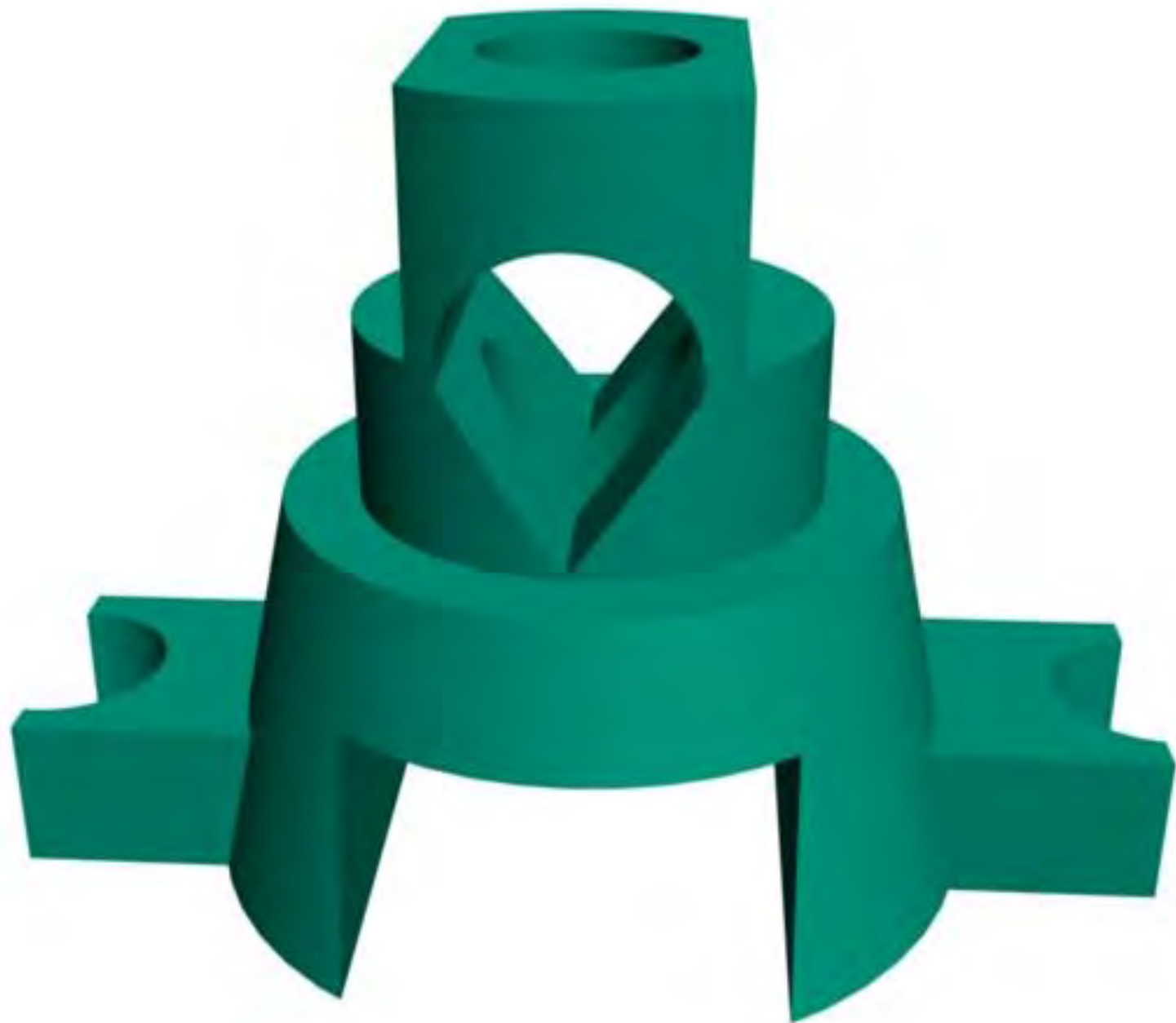
СОДЕРЖАНИЕ



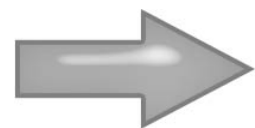
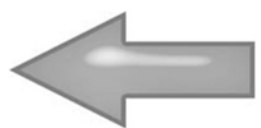


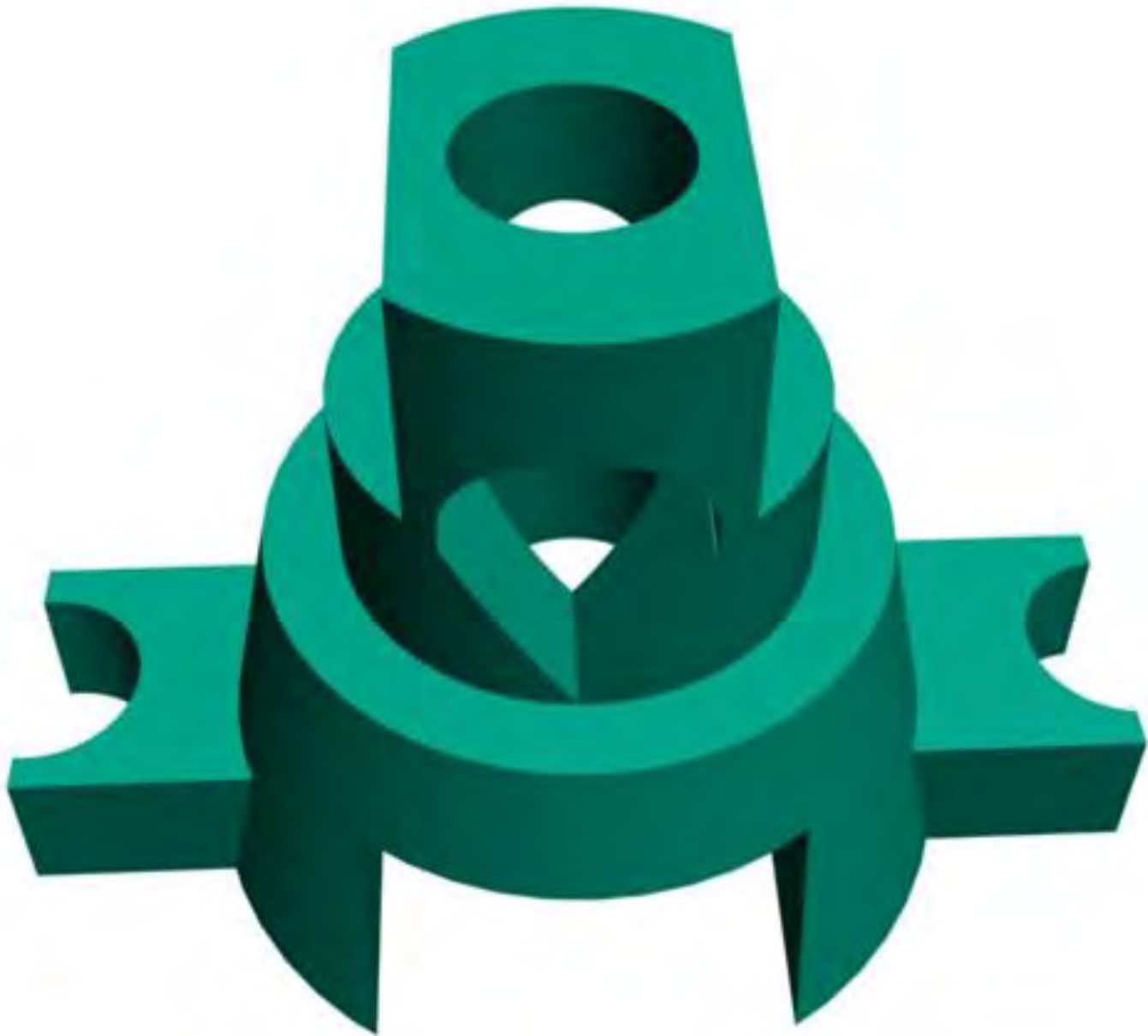
СОДЕРЖАНИЕ



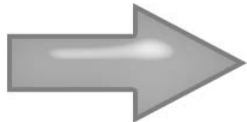
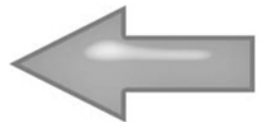


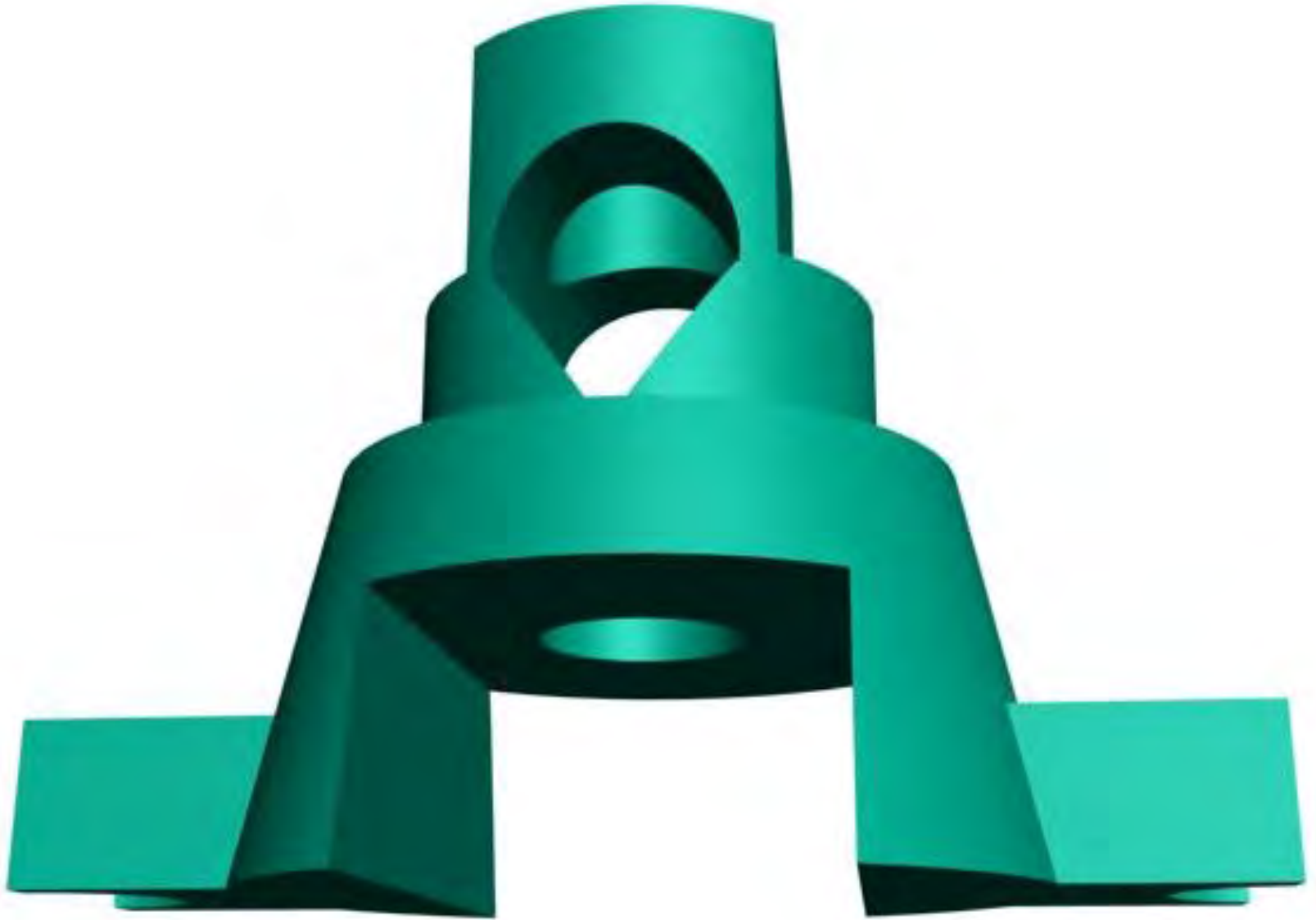
СОДЕРЖАНИЕ



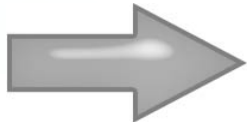
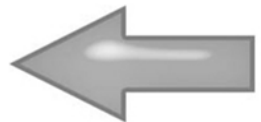


СОДЕРЖАНИЕ





СОДЕРЖАНИЕ



Литература

- Корытко, Л.С. Проекционное черчение: метод. пособие по разделу дисц. «Начертательная геометрия. Инженерная и машинная графика» для студ. строит. спец. / Л.С. Корытко, М.В. Кравченко, М.К. Протасова. – Минск: БНТУ, 2005. – 54 с.
- Селицкий, А.А. Нанесение и простановка размеров: учебно-метод. пособие по дисц. «Инженерная графика» для студ. строит. спец. / А.А. Селицкий, Т.А. Токарева. – Минск: БНТУ, 2004. – 36 с.