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«Московский государственный технический  
университет имени Н.Э. Баумана  
(национальный исследовательский  
университет)» (МГТУ им. Н.Э. Баумана)**

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**ФАКУЛЬТЕТ «ИНФОРМАТИКА И СИСТЕМЫ УПРАВЛЕНИЯ»  
КАФЕДРА «СИСТЕМЫ АВТОМАТИЧЕСКОГО УПРАВЛЕНИЯ»**

## **Самостоятельная работа №1.4**

# **"Массивы, отражения и множественное преобразование"**

**Вариант 7**

Студент группы

Соин А. Д.  
14 марта 2025 г.

Преподаватель

Викулов А. Н.  
«\_» \_\_\_\_\_ 2025 г.

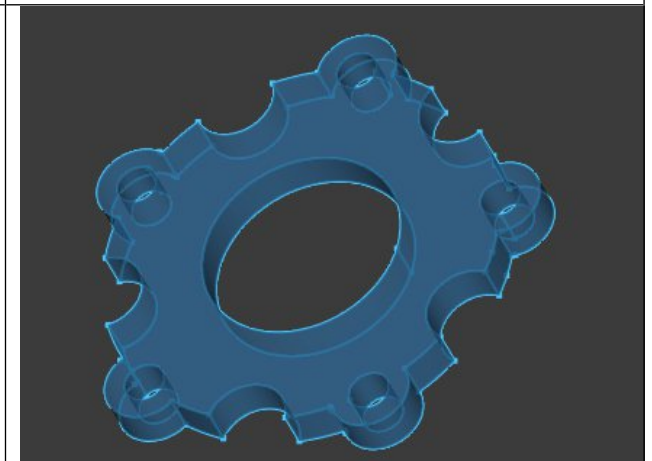
# ДЕТАЛЬ 2 ВАРИАНТ 7

## ОБЩИЙ ВИД ДЕТАЛИ

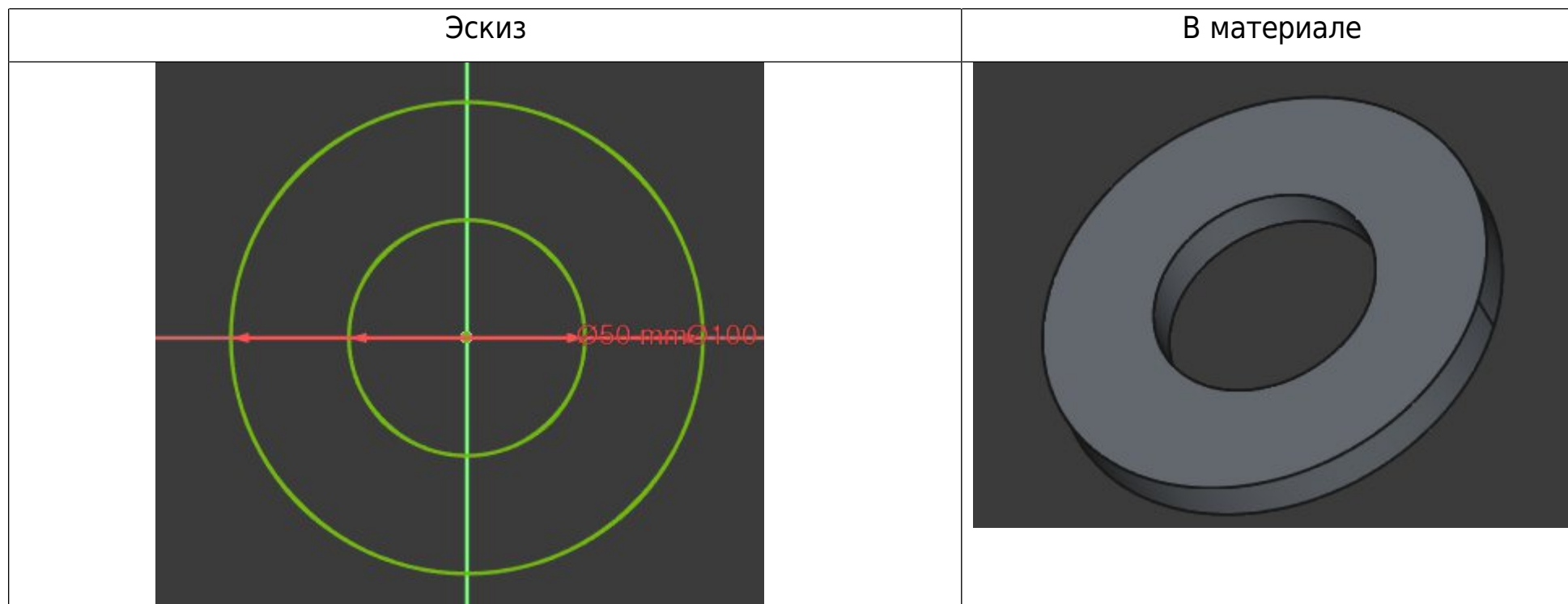
С деревом конструирования



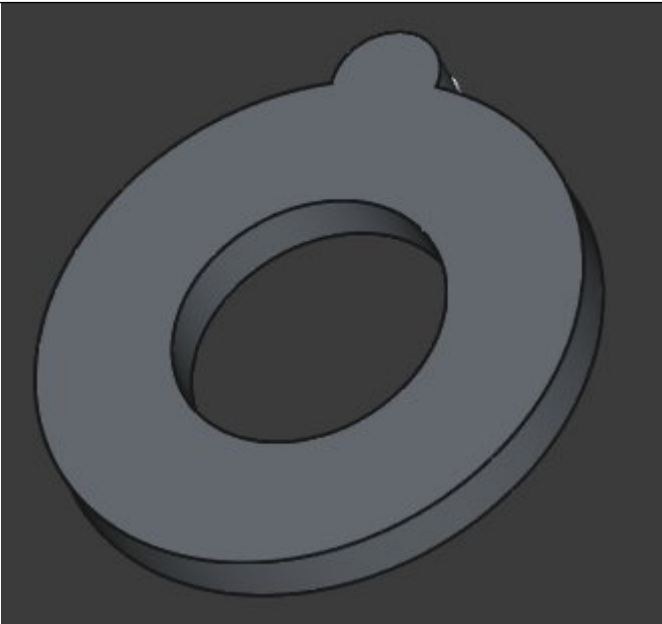
Внутренние части



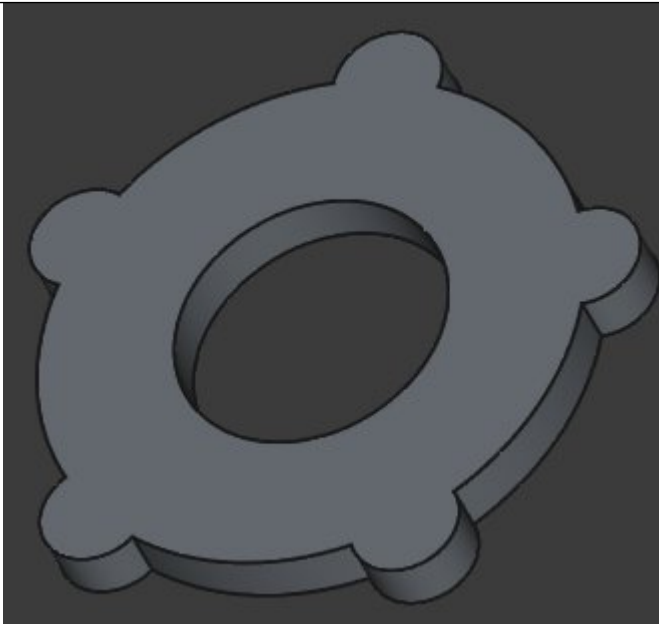
# ОСНОВА ДЕТАЛИ



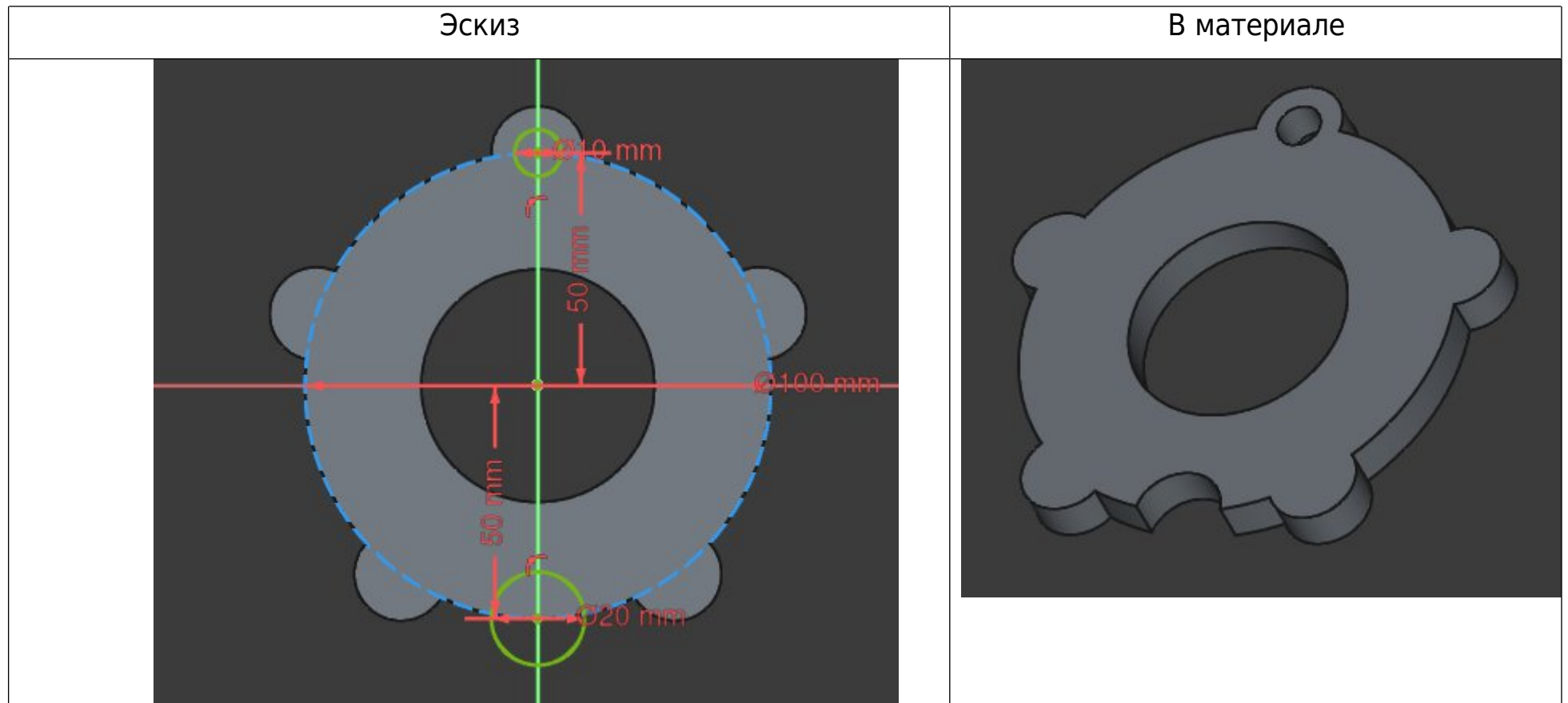
# ВЫПУКЛОСТЬ

Эскиз	В материале
 <p>A technical sketch on a black background. A green circle is centered on a vertical green line. A horizontal red line passes through the center of the circle, with a red double-headed arrow indicating a diameter of <math>\varnothing 20 \text{ mm}</math>. A vertical red line segment, starting from the horizontal centerline and extending upwards to the top of the circle, is labeled <math>50 \text{ mm}</math>. A small blue dot is located at the intersection of the vertical green line and the horizontal red line.</p>	 <p>A 3D perspective rendering of a dark gray, metallic-looking ring. The ring has a central hole and a small, rounded bump on its top surface, corresponding to the feature shown in the sketch.</p>

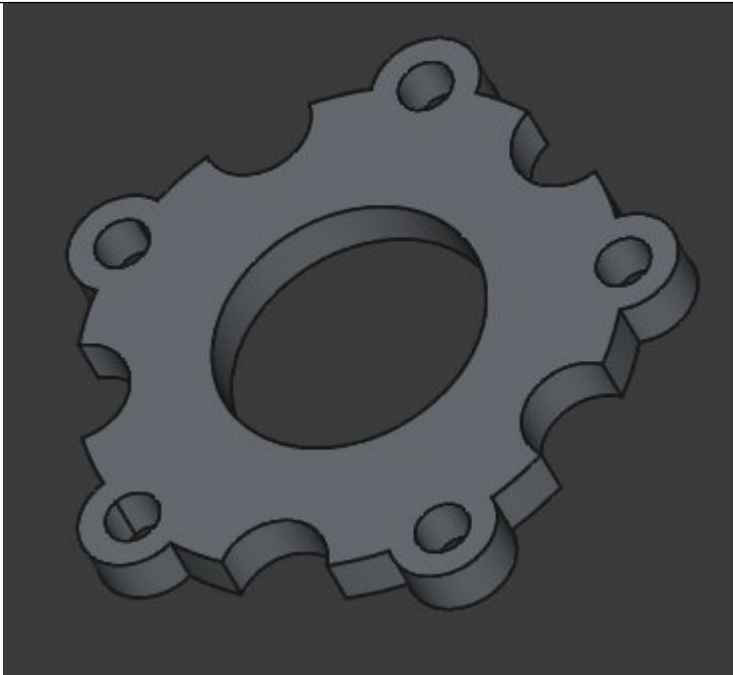
# КРУГОВОЙ МАССИВ 1

Параметры		В материале
<b>База</b>		
Reversed	false	
Mode	angle	
Угол	360,00 °	
Offset	120,00 °	
Occurrences	5	
Originals	Pad001	
Transform M...	Transform tool shapes	
Label	PolarPattern	
Suppressed	false	
<b>Part Design</b>		
Refine	true	
<b>Polar Pattern</b>		
Ось	Z_Axis (Ось-Z)	

# ВЫРЕЗЫ

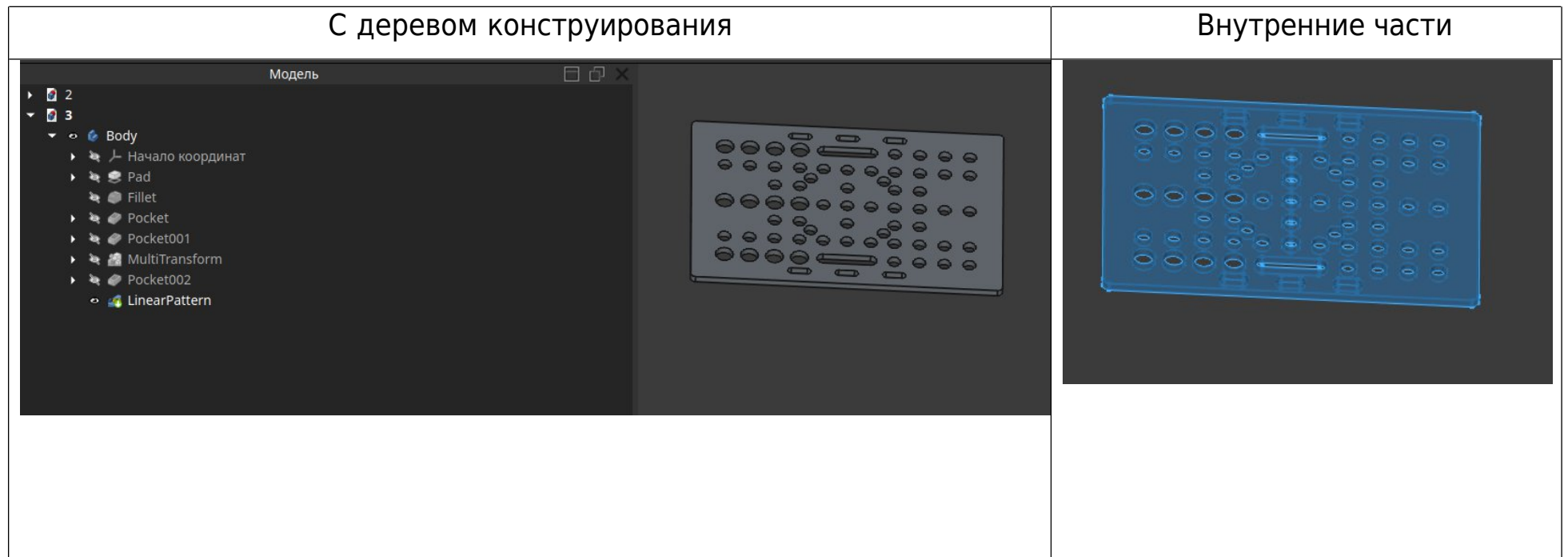


# КРУГОВОЙ МАССИВ 2

Параметры		В материале
<b>База</b>		
Reversed	false	
Mode	angle	
Угол	360,00 °	
Offset	120,00 °	
Occurrences	5	
Originals	Pocket	
Transform M...	Transform tool shapes	
Label	PolarPattern001	
Suppressed	false	
<b>Part Design</b>		
Refine	true	
<b>Polar Pattern</b>		
Ось	Sketch002 [N_Axis]	

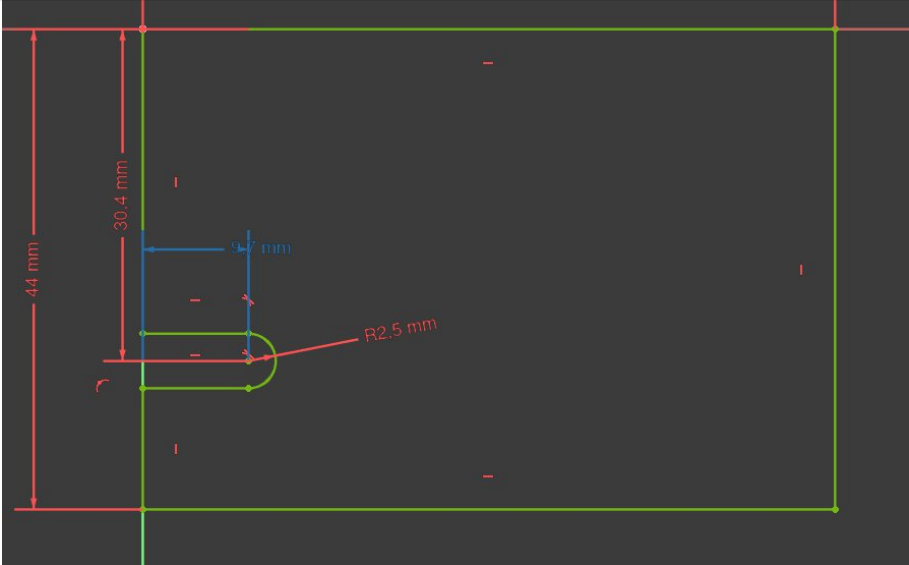
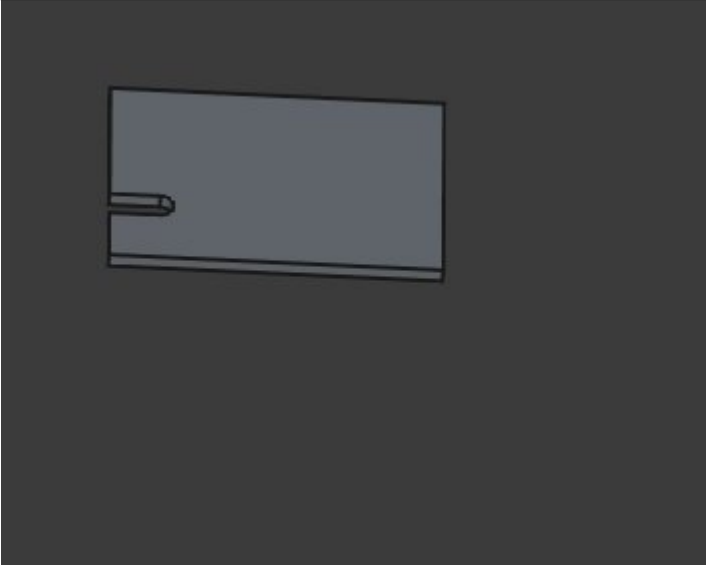
# ДЕТАЛЬ 3 ВАРИАНТ 7

## ОБЩИЙ ВИД ДЕТАЛИ

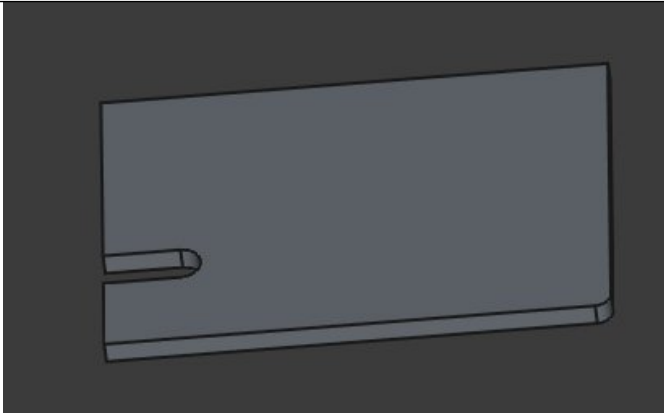




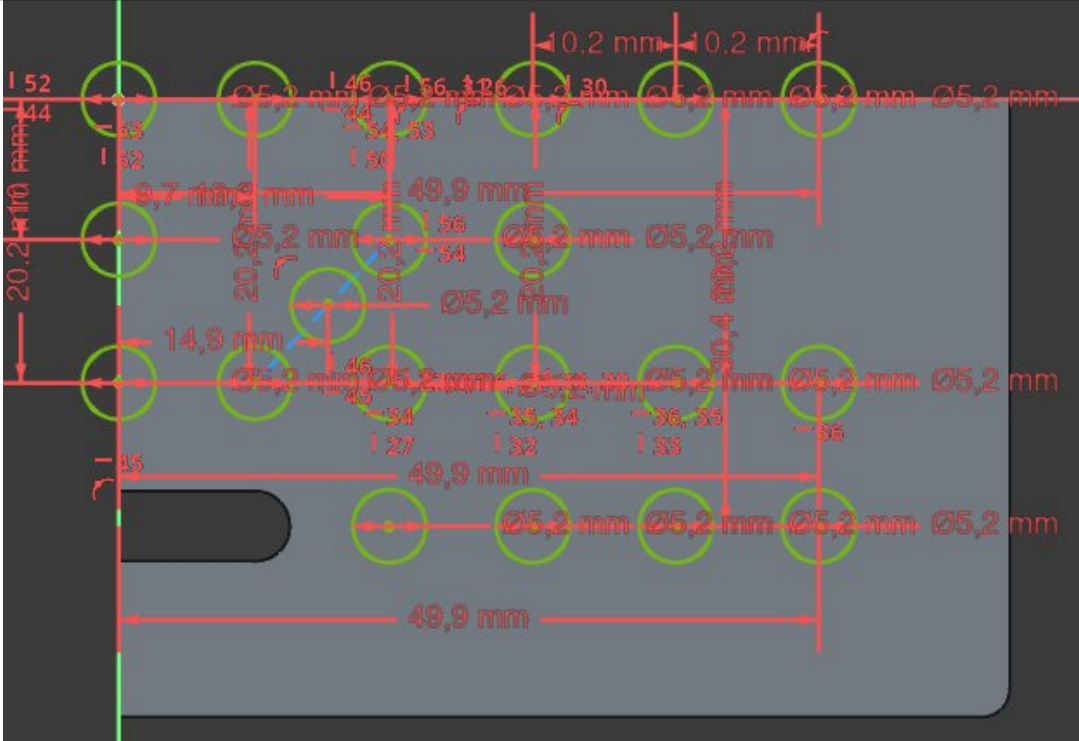
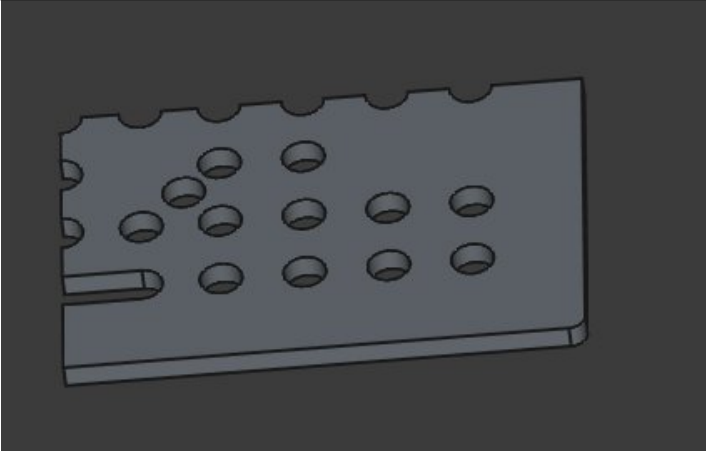
# ОСНОВА

Эскиз	В материале
 <p>Technical sketch of a rectangular base. The overall height is 44 mm. A semi-circular feature is located on the left side, with a radius of R2.5 mm. The distance from the top edge to the center of the semi-circle is 30.4 mm. The width of the semi-circular feature is 9.7 mm. The sketch is drawn on a dark gray background with red and green lines indicating dimensions and features.</p>	 <p>Photograph of the physical part in material. The part is a rectangular base with a semi-circular feature on the left side, matching the dimensions and shape shown in the sketch. The part is dark gray and is shown against a dark gray background.</p>

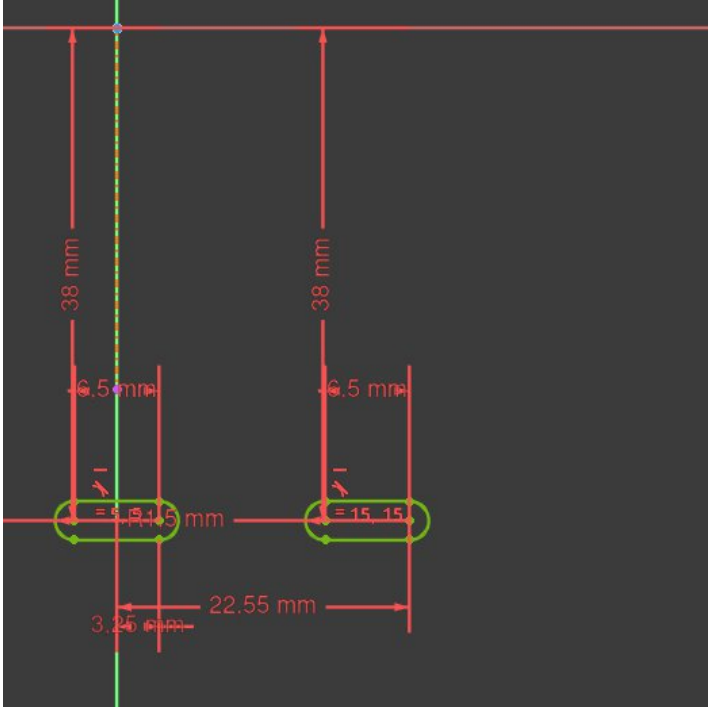
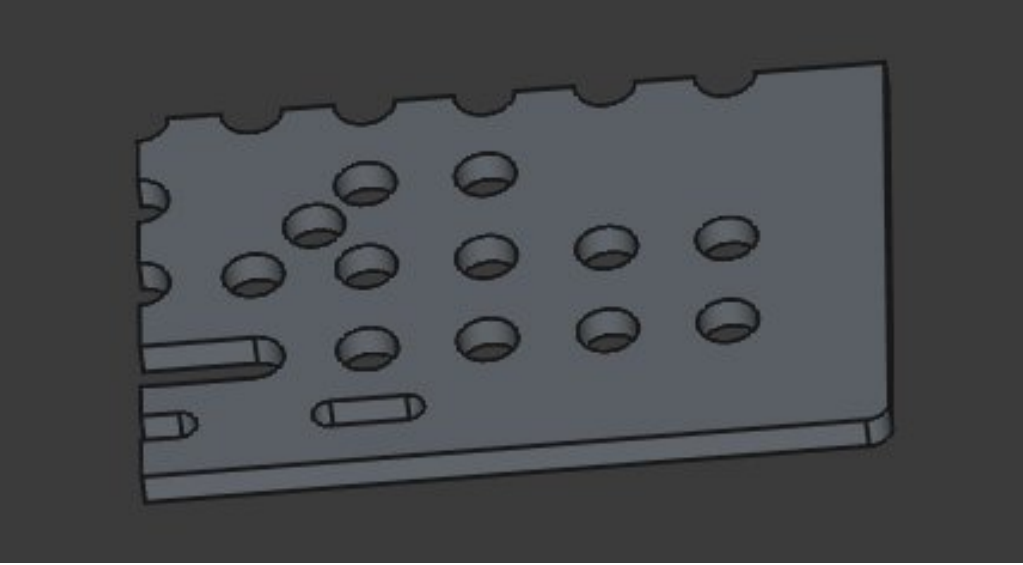
# СКРУГЛЕНИЕ

Параметры		В материале
<div><div>База</div><div><div>База</div><div>Pad [Edge5]</div></div><div><div>Support Tran...</div><div>false</div></div><div><div>Label</div><div>Fillet</div></div><div><div>Suppressed</div><div>false</div></div><div>Fillet</div><div><div>Radius</div><div>2,00 mm</div></div><div><div>Use All Edges</div><div>false</div></div><div>Part Design</div><div><div>Refine</div><div>true</div></div></div>		

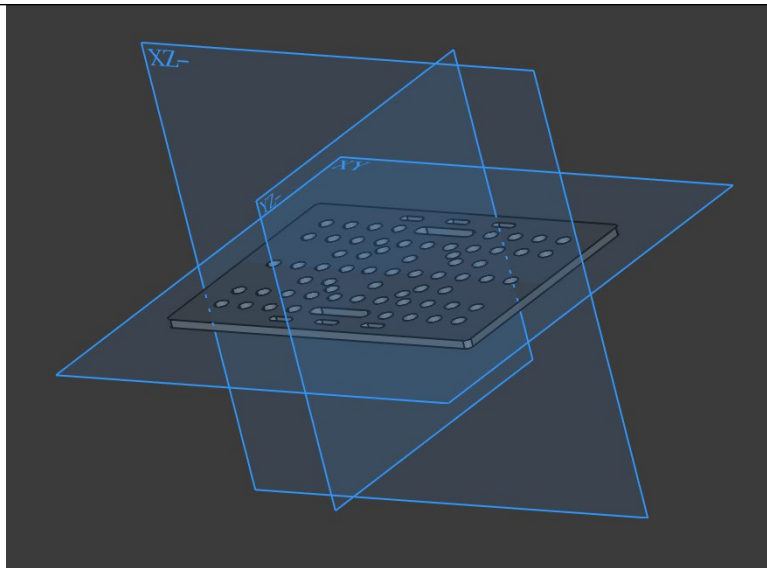
# ВЫРЕЗЫ 1

Эскиз	В материале
 <p>Technical sketch of a metal plate with dimensions and hole locations. The plate has a width of 100 mm and a height of 100 mm. The left edge has a vertical slot with a width of 20.2 mm. The top edge has a horizontal slot with a width of 10.2 mm. The bottom edge has a horizontal slot with a width of 10.2 mm. The plate contains 16 holes, arranged in a 4x4 grid. The holes are labeled with their diameters: Ø5.2 mm. The dimensions are given in millimeters (mm). The holes are located at the following coordinates (X, Y) relative to the top-left corner:</p> <ul style="list-style-type: none"> <li>Row 1: (10, 10), (30, 10), (50, 10), (70, 10)</li> <li>Row 2: (10, 30), (30, 30), (50, 30), (70, 30)</li> <li>Row 3: (10, 50), (30, 50), (50, 50), (70, 50)</li> <li>Row 4: (10, 70), (30, 70), (50, 70), (70, 70)</li> </ul>	 <p>Photograph of the metal plate showing the holes. The plate is dark gray and has a rectangular shape. The holes are arranged in a 4x4 grid. The plate has a vertical slot on the left edge and horizontal slots on the top and bottom edges. The holes are labeled with their diameters: Ø5.2 mm.</p>

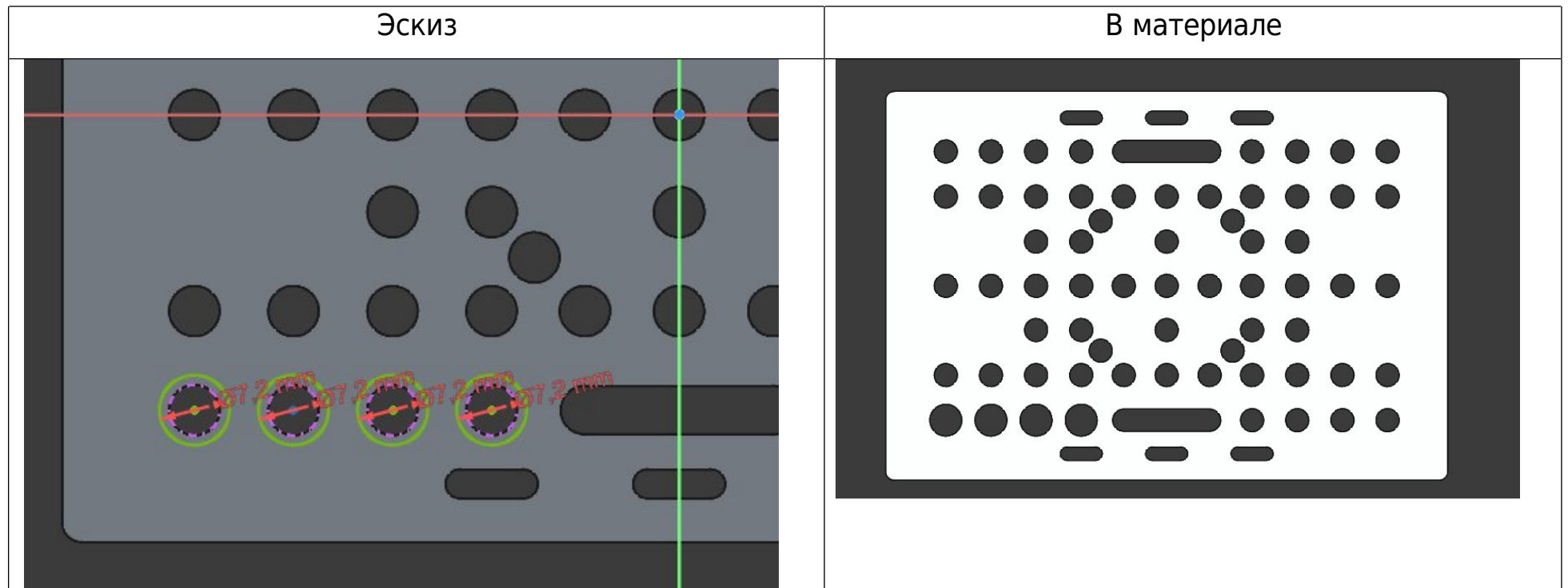
## ВЫРЕЗЫ 2

Эскиз	В материале
 <p>Technical sketch of a mechanical part showing dimensions. The part is symmetrical about a central vertical axis. Key dimensions include: two vertical sections, each 38 mm high; two horizontal sections, each 6.5 mm wide; a central horizontal slot with a width of 15.15 mm; a distance of 22.55 mm between the centers of the two horizontal sections; and a distance of 3.25 mm from the bottom edge to the center of the horizontal sections. The sketch uses red lines for dimensions and a green dashed line for the center axis.</p>	 <p>3D model of the mechanical part, showing the top surface with a grid of circular holes. The model is rendered in a dark gray color, matching the sketch.</p>

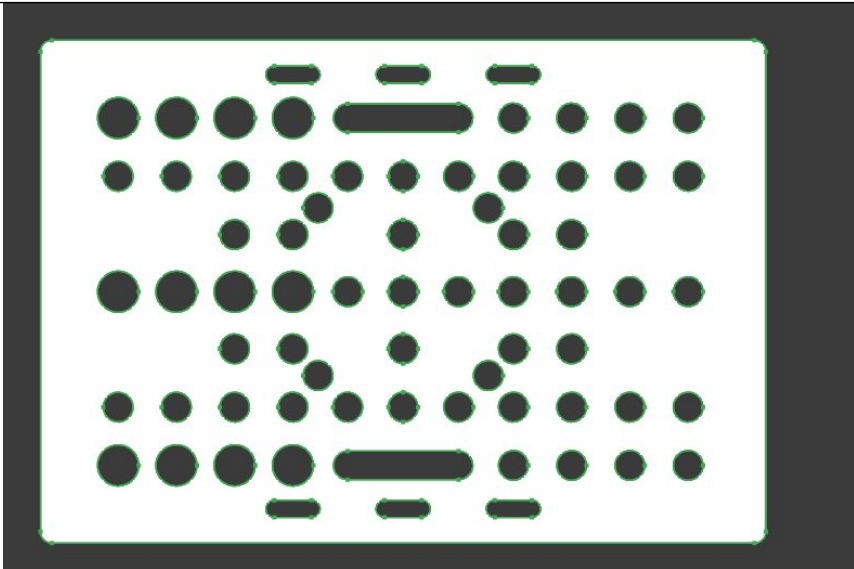
# МНОЖЕСТВЕННОЕ ПРЕОБРАЗОВАНИЕ

Параметры - Отражение		Параметры - Отражение 1		В материале
База		База		
Originals		Originals		
Transform M...	Transform tool shapes	Transform M...	Transform tool shapes	
Label	Mirrored	Label	Mirrored001	
Suppressed	false	Suppressed	false	
Mirrored		Mirrored		
Mirror Plane	YZ_Plane (YZ-плоскость)	Mirror Plane	XZ_Plane (XZ-плоскость)	
Part Design		Part Design		
Refine	true	Refine	true	

# БОЛЬШИЕ ОТВЕРСТИЯ



# ЛИННЕЙНЫЙ МАССИВ

Параметры		В материале
<b>База</b>		
Reversed	false	
Mode	offset	
Length	60,80 mm	
Offset	30,40 mm	
Occurrences	3	
Originals	Pocket002	
Transform M...	Transform tool shapes	
Label	LinearPattern	
Suppressed	false	
<b>Linear Pattern</b>		
Direction	Sketch003 [V_Axis]	
<b>Part Design</b>		
Refine	true	