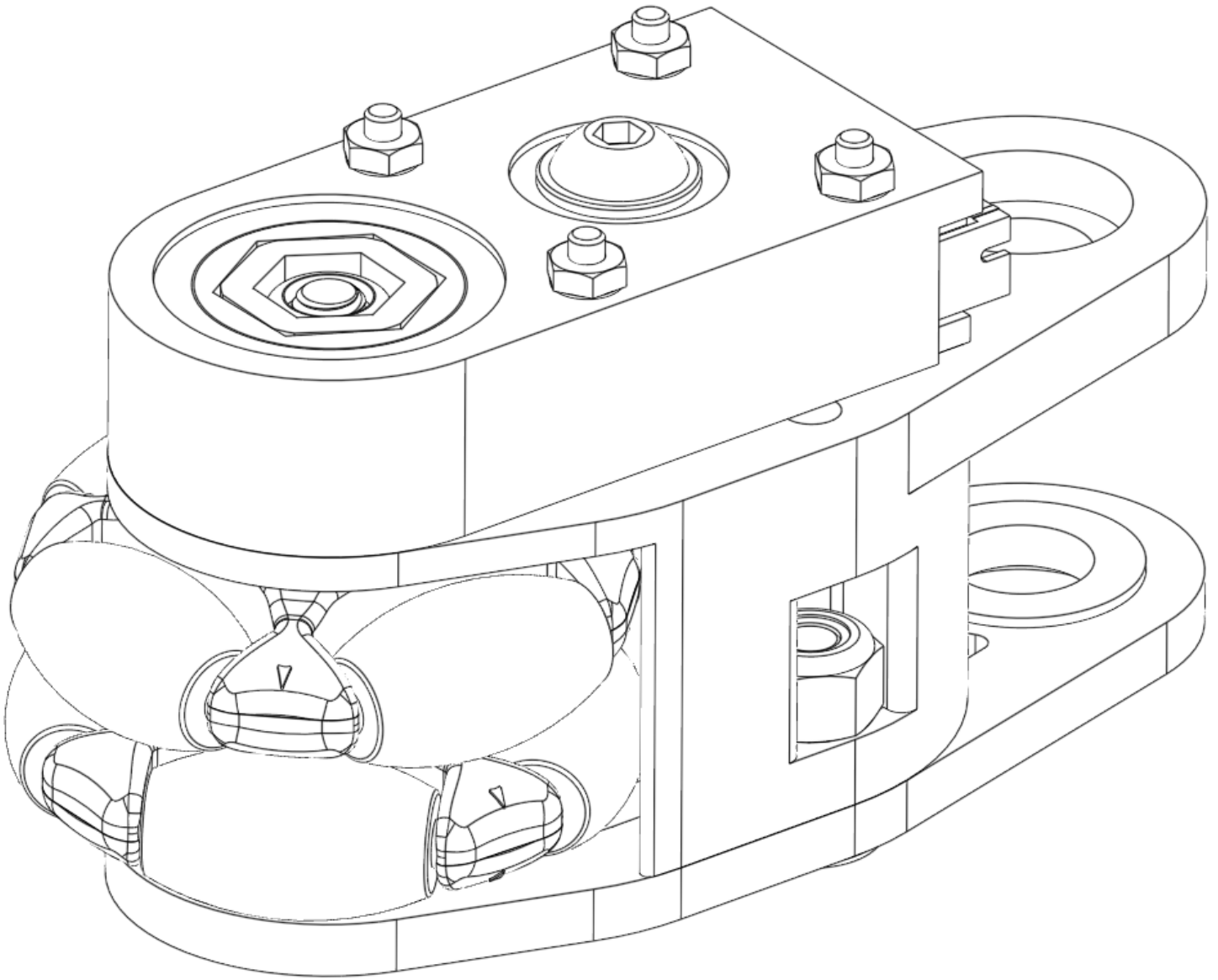
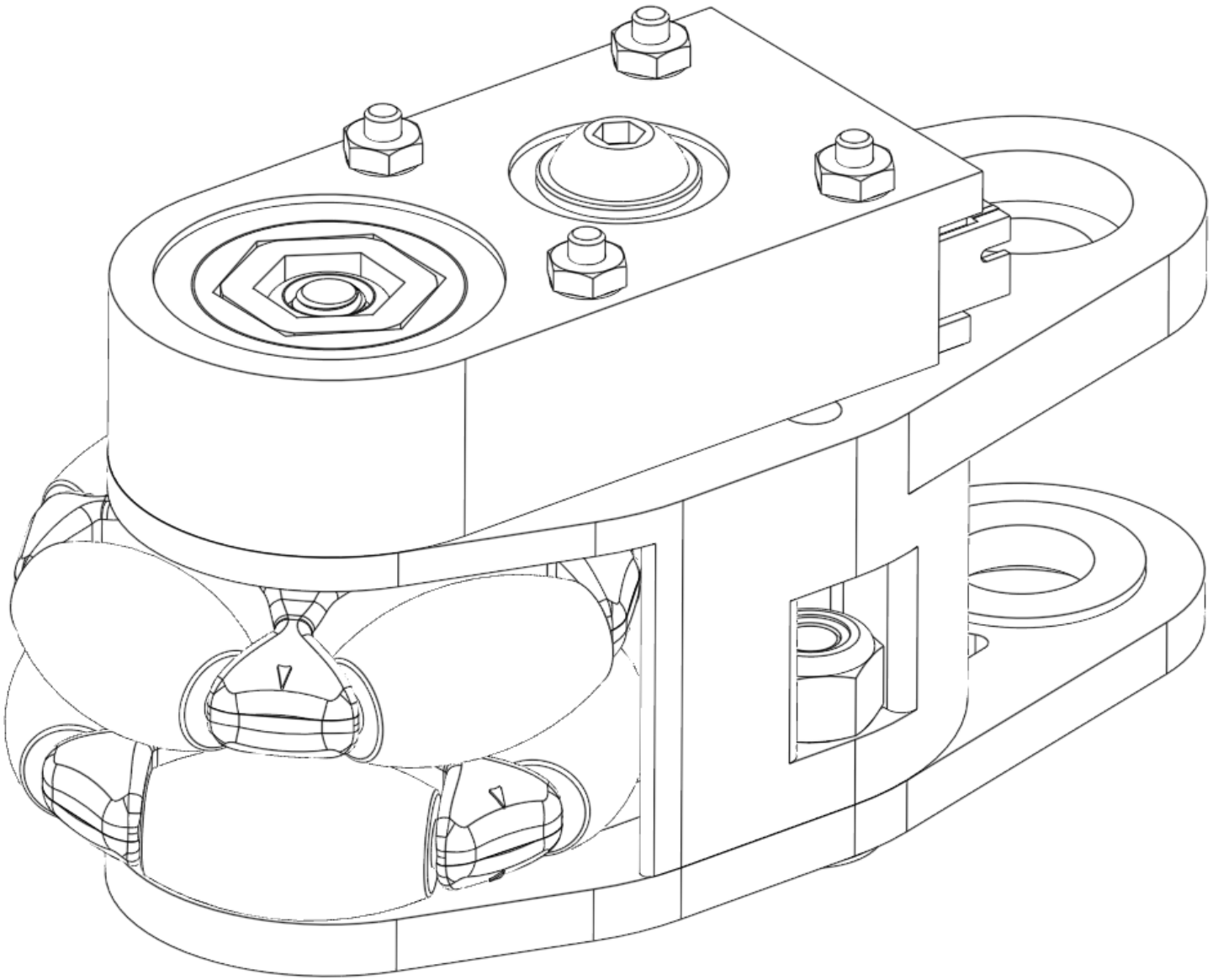


FULL ASSEMBLY INSTRUCTIONS



Loony0do: v1.0

Redux + CNC Backplate



This is the flagship LoonyOdo design. It uses the Axon Redux encoder with a custom 3D printed midpiece and a CNC-cut backplate. Its BOM is identical to that of the Axon Codex odometry pod.

BILL OF MATERIALS

PART NAME	SKU	QUANTITY	CHECK
BaseCase		1	
Backplate		1	
Countersunk M4x12	91294A192	3	
Countersunk M4x35	91294A202	1	
M4 Nut	2812-0004-0007	3	
35mm Rotacaster Omni	R2-0354-5701	1	
8mm ID 12mm OD Bearing	1601-0412-0006	3	

NOTES:

- Most of these parts are identical to those found in the Axon Codex odometry kit, with the exception of the M4x12 bolts and 3 M4 nuts.

PRINTING PARAMETERS (PLA)

Here are the as-tested printing parameters for PLA. These were tested on a stock Ender 3. With MatterHackers MH Build PLA

NOTE: Your printer or filament may vary. This is intended only as a starting point.

PART NAME	INFILL (GYROID)	WALLS	TOP/BOTTOM
0.4mm nozzle 0.2mm layers			
BaseCase	30	4	6/4
0.6mm nozzle 0.3mm layers			
BaseCase	25	3	3

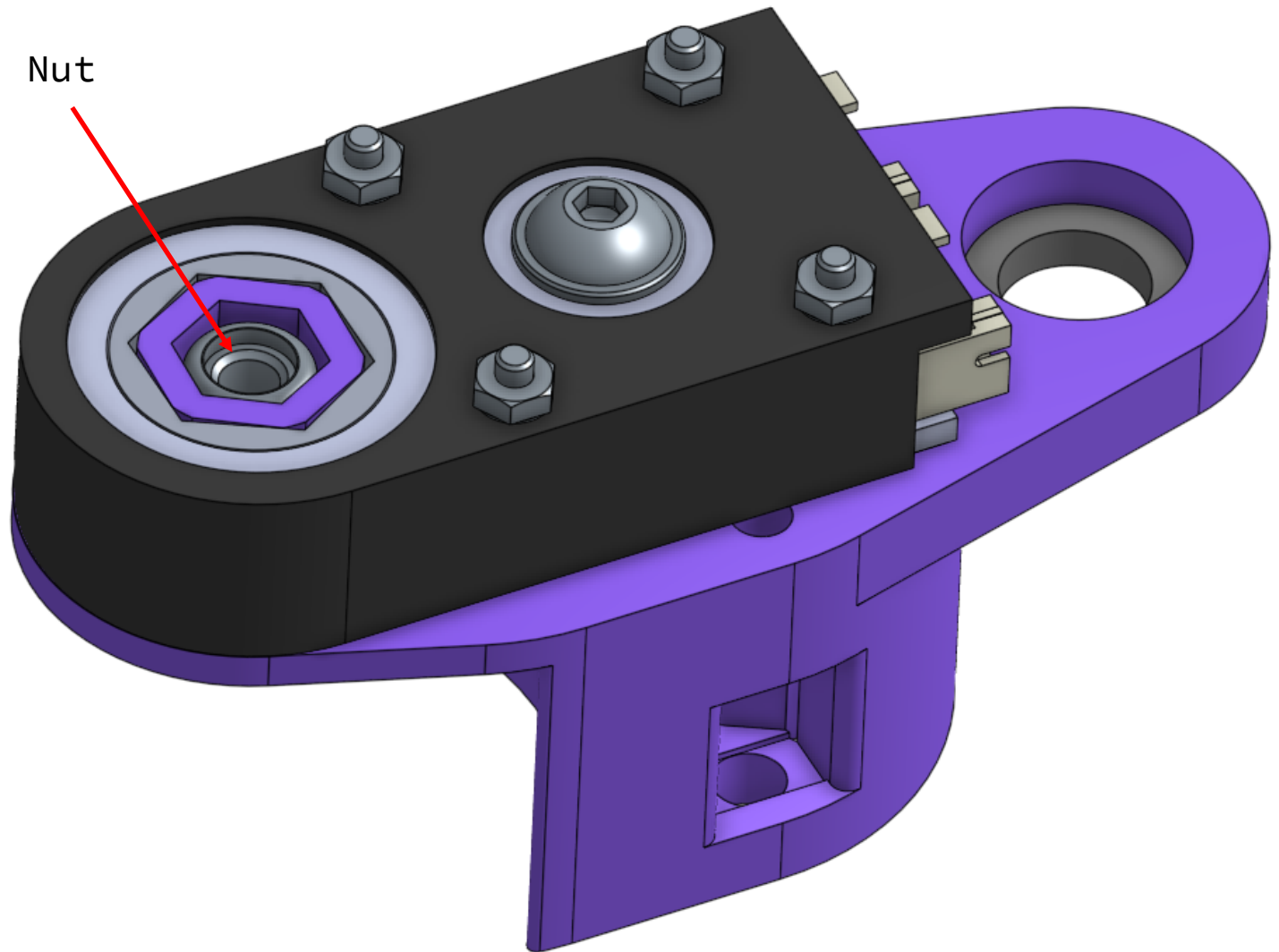
1

The first step requires the disassembly of the Axon Redux encoder. The backplate must be removed. The stock M2 bolts are then used to mount the encoder to the 3D printed BaseCase part.



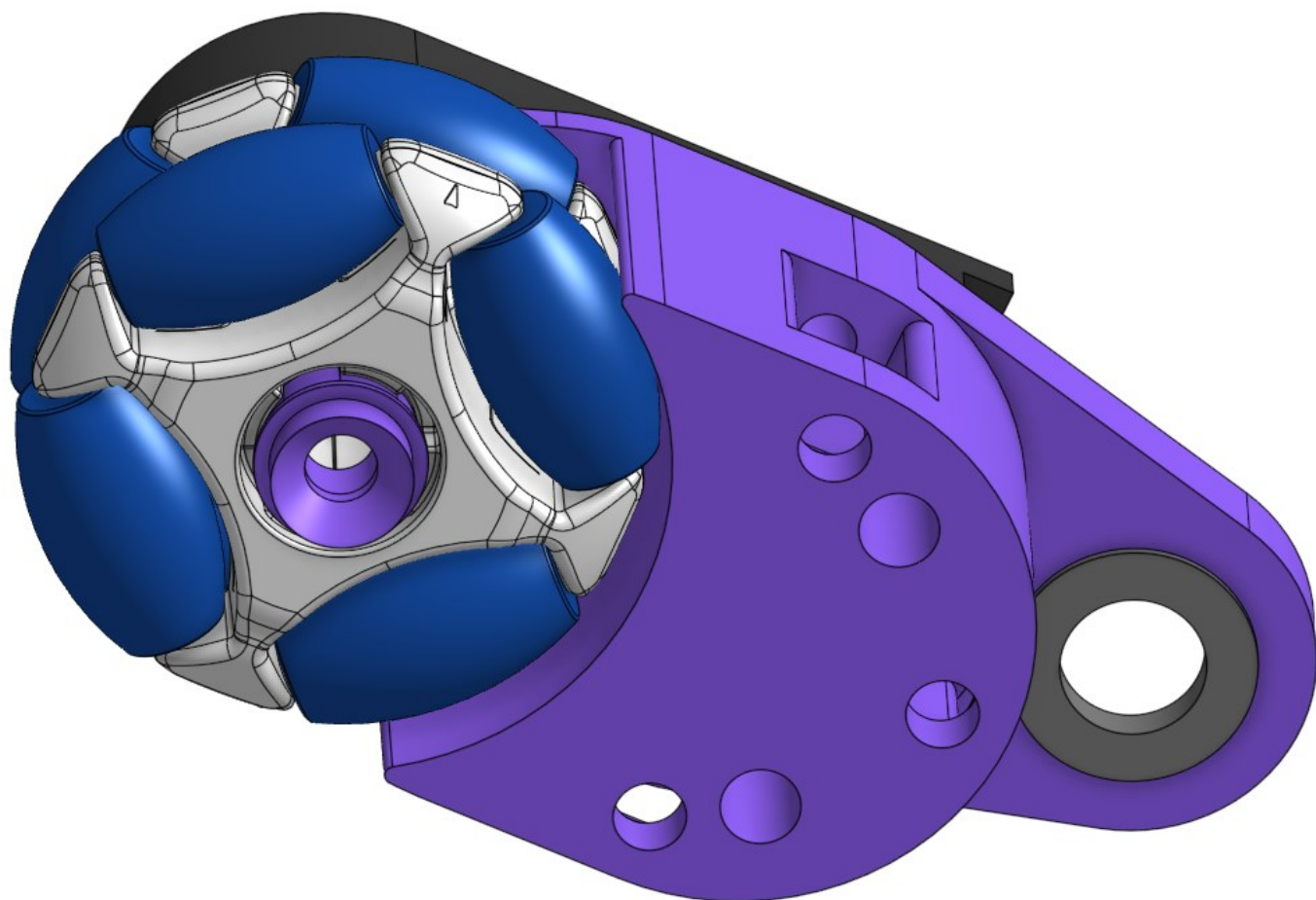
2

Wheel Insert 1 (Encoder Side)	1
8mm ID 12mm OD Bearing	1
Prevailing Torque Nut	1



3

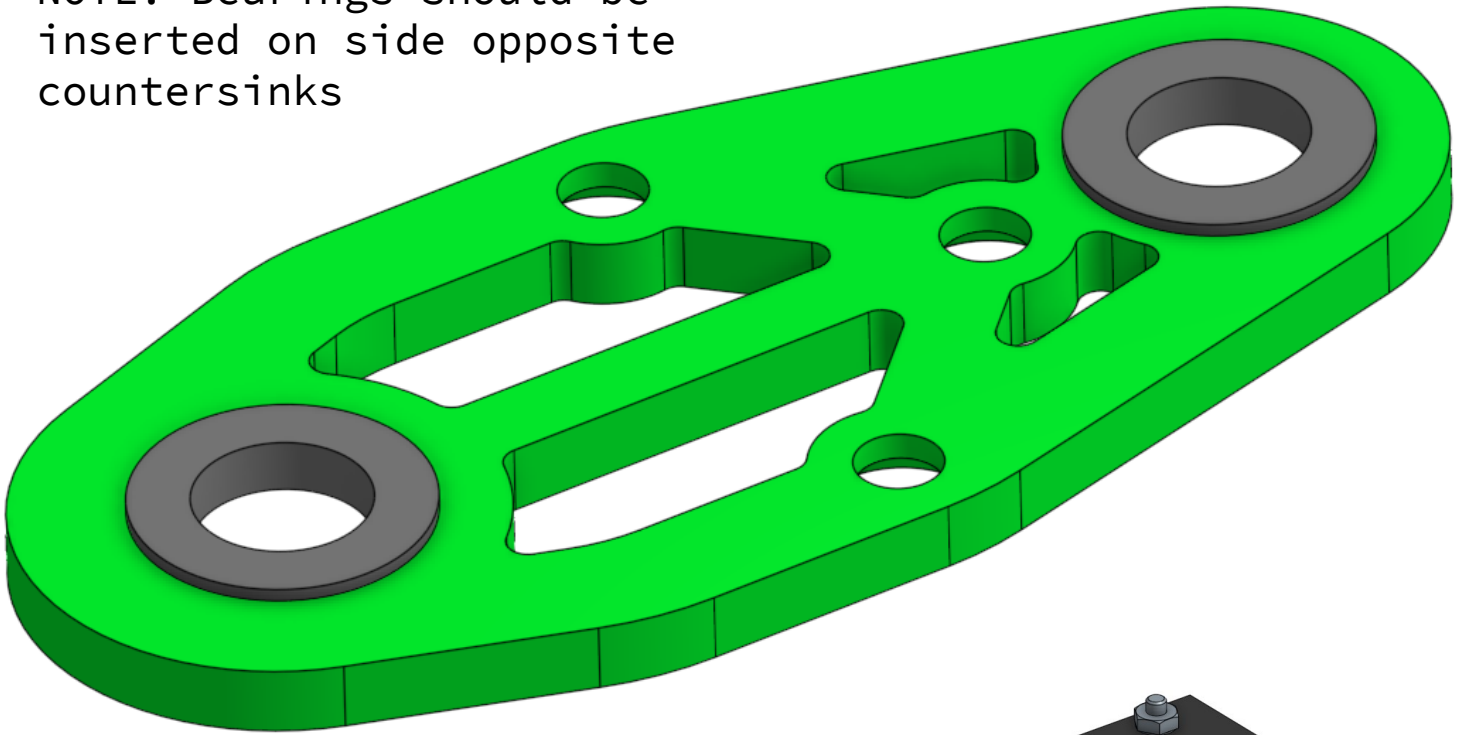
Rotacaster 35mm Omni	1
Wheel Insert 1 (Bearing Side)	1



4

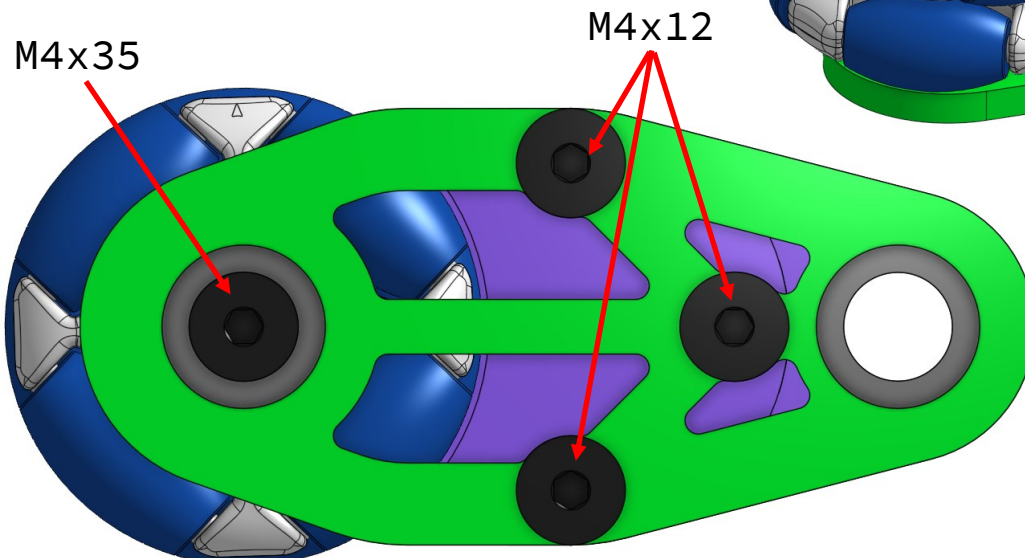
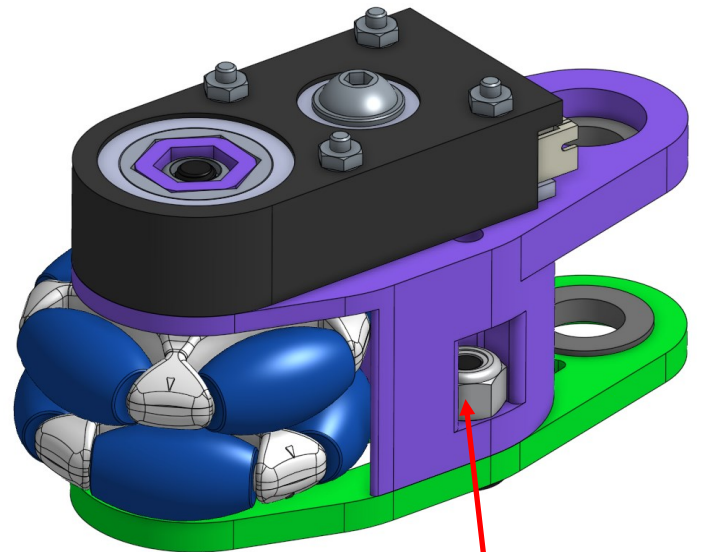
8mm ID 12mm OD Bearing	1
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NOTE: Bearings should be inserted on side opposite countersinks

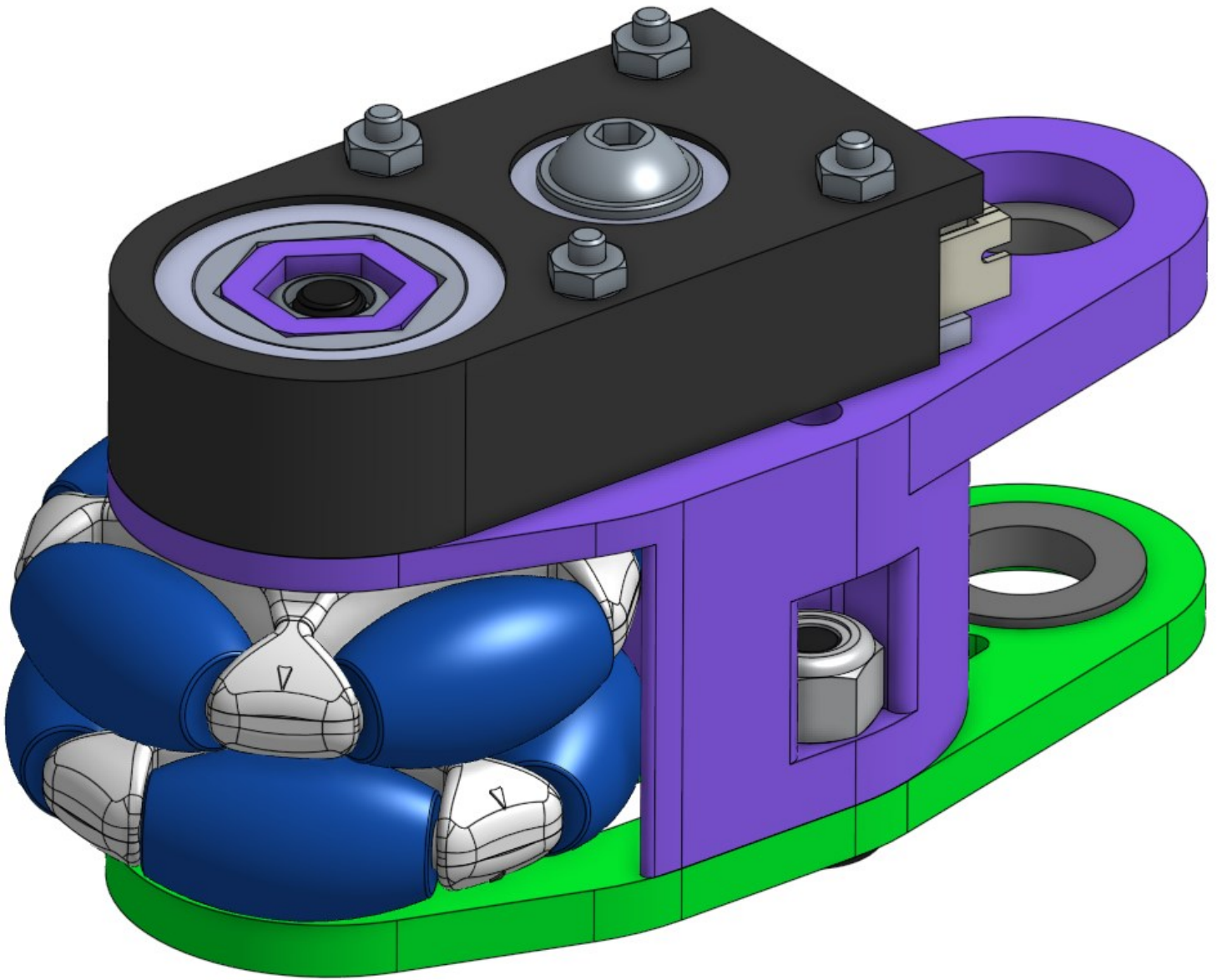


5

Countersunk M4x12	3
Countersunk M4x35	1
M4 Nut	3



Nuts should be inserted into the 3 hex-shaped holes in the BaseCase part.



ADDITIONAL INFORMATION

CAD: <https://cad.onshape.com/documents/d3f71dd21473f1f7cb90f46a/w/c442869b72fff7747c68e8ef/e/66b8575e64647fa3550fca9c>

CONTACT: b1nary#7727, G-Force#5900 on Discord

LATEST STLs and INSTRUCTIONS: <https://github.com/The-Loony-Squad/Loony0do>