



KI-0555 EZ-inMoov Robot Head Kit - Assembly Instructions v0.2

HARDWARE LIST

M3 x 0.5mm
Length: 14mm
Black-Oxide
Hex drive Flat Head
Machine Screw

M2 x 0.4mm
Length: 20mm
Black-Oxide
Hex drive Flat Head
Machine Screw

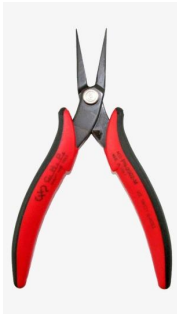
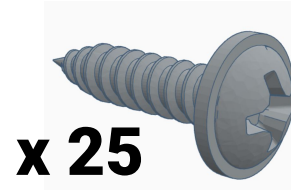
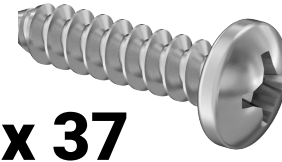
No. 8
Length: 3/4"
Flat Head Phillips
Wood/Metal Screw

M3
Length: 10mm
Pan Head Phillips
Thread forming
Screw

M2
Length: 10mm
Flange Head Phillips
Wood/Metal Screw

M3 x 0.5mm
Length: 6mm
Black-Oxide
Pan Head Phillips
Machine Screw

M3 x 0.5mm
Steel Hex Nut



2mm
Allen Key

1.27mm
Allen Key

No.2
Phillips
Screwdriver

No.2
Phillips
Screwdriver

No.1
Phillips
Screwdriver

No.1
Phillips
Screwdriver

Needlenose
Pliers

TOOL LIST

OPTIONAL TOOLS & MATERIALS



Electric Precision Screwdriver for threading hardware



Utility Knife for cleaning up 3D prints



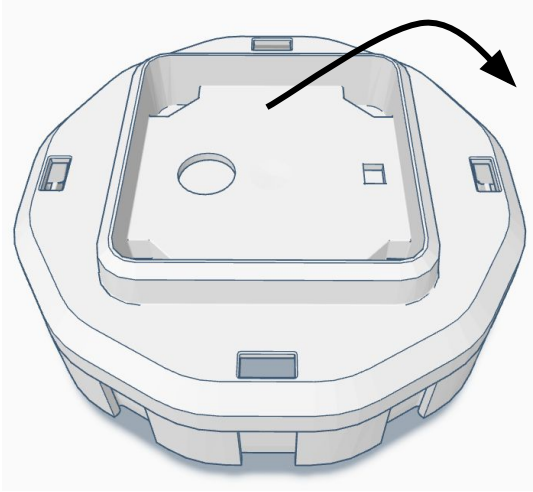
White Lithium Grease for lubricating 3D printed gears



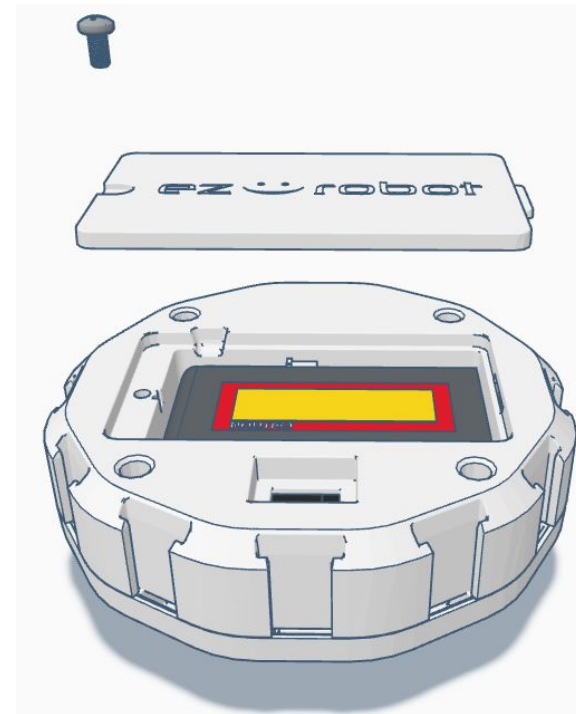
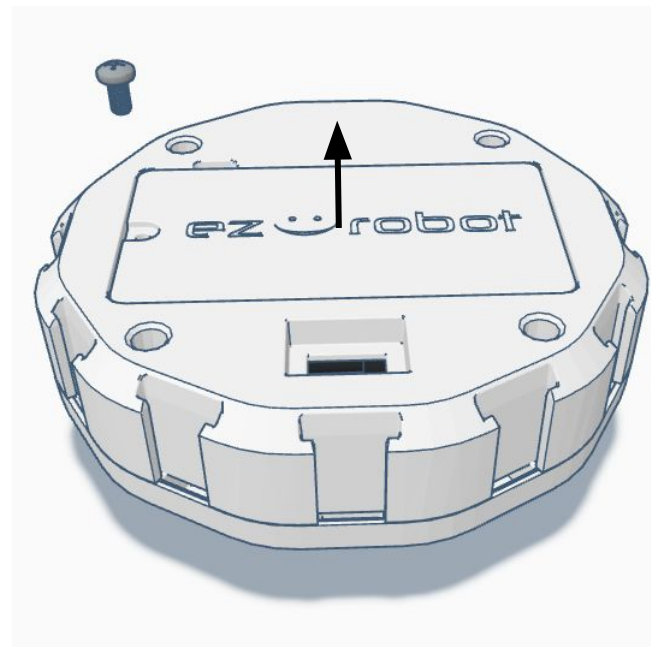
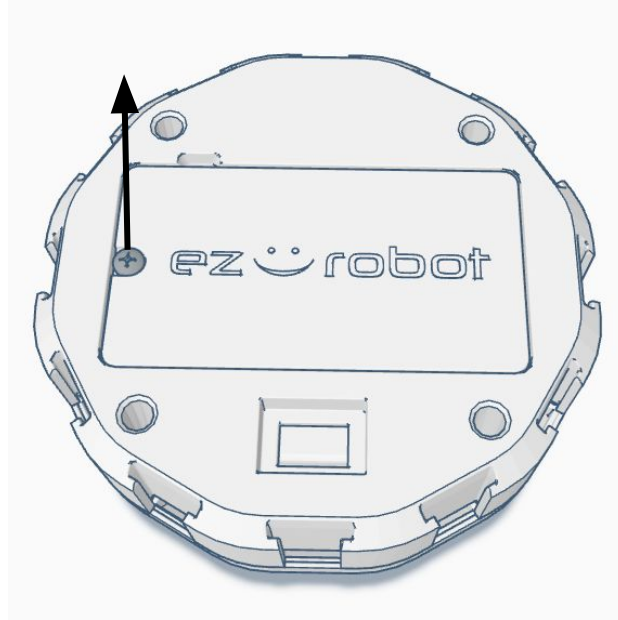
Side cutters used with Safety Glasses

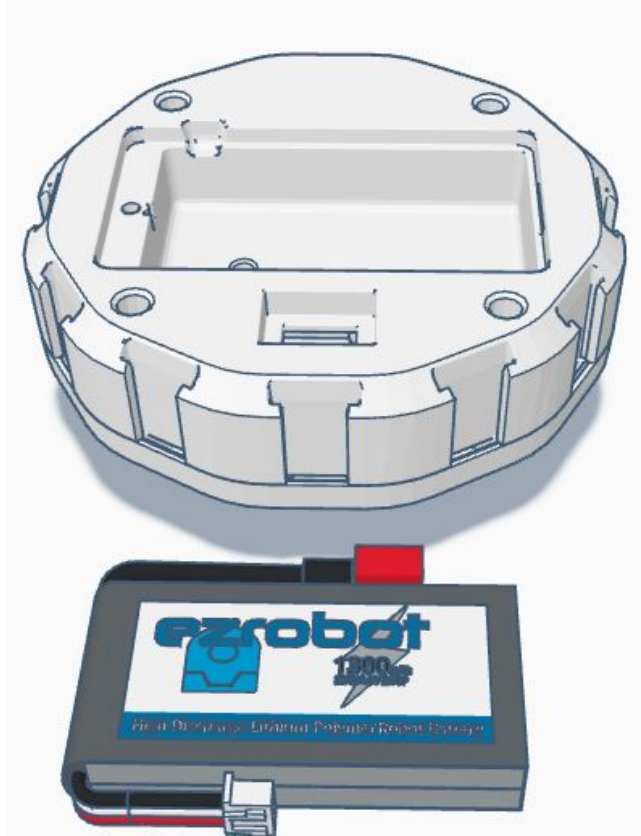
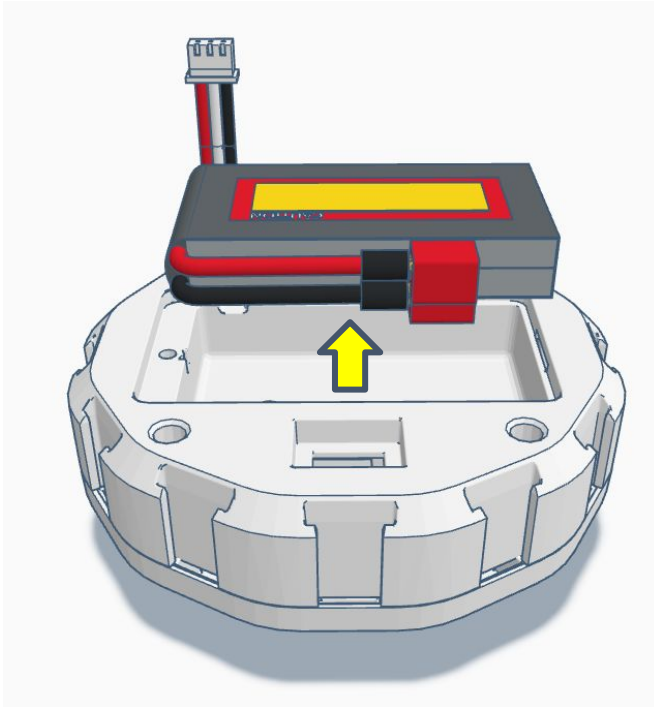
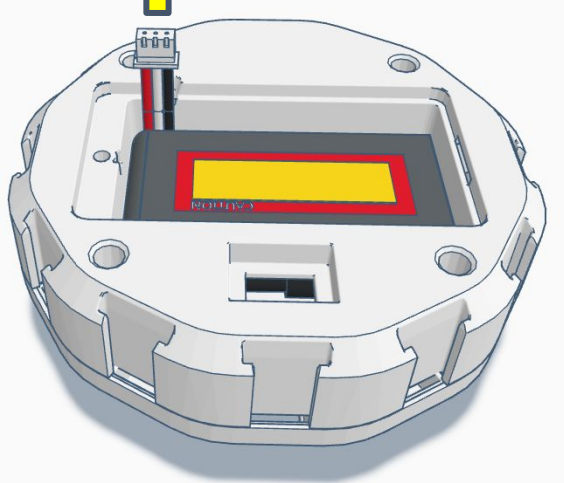
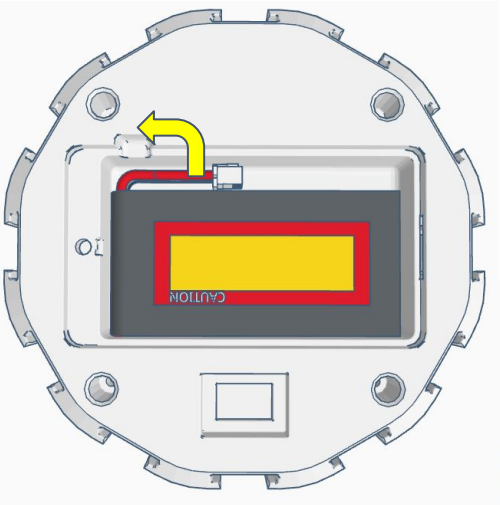


Needle Files for cleaning up 3D prints

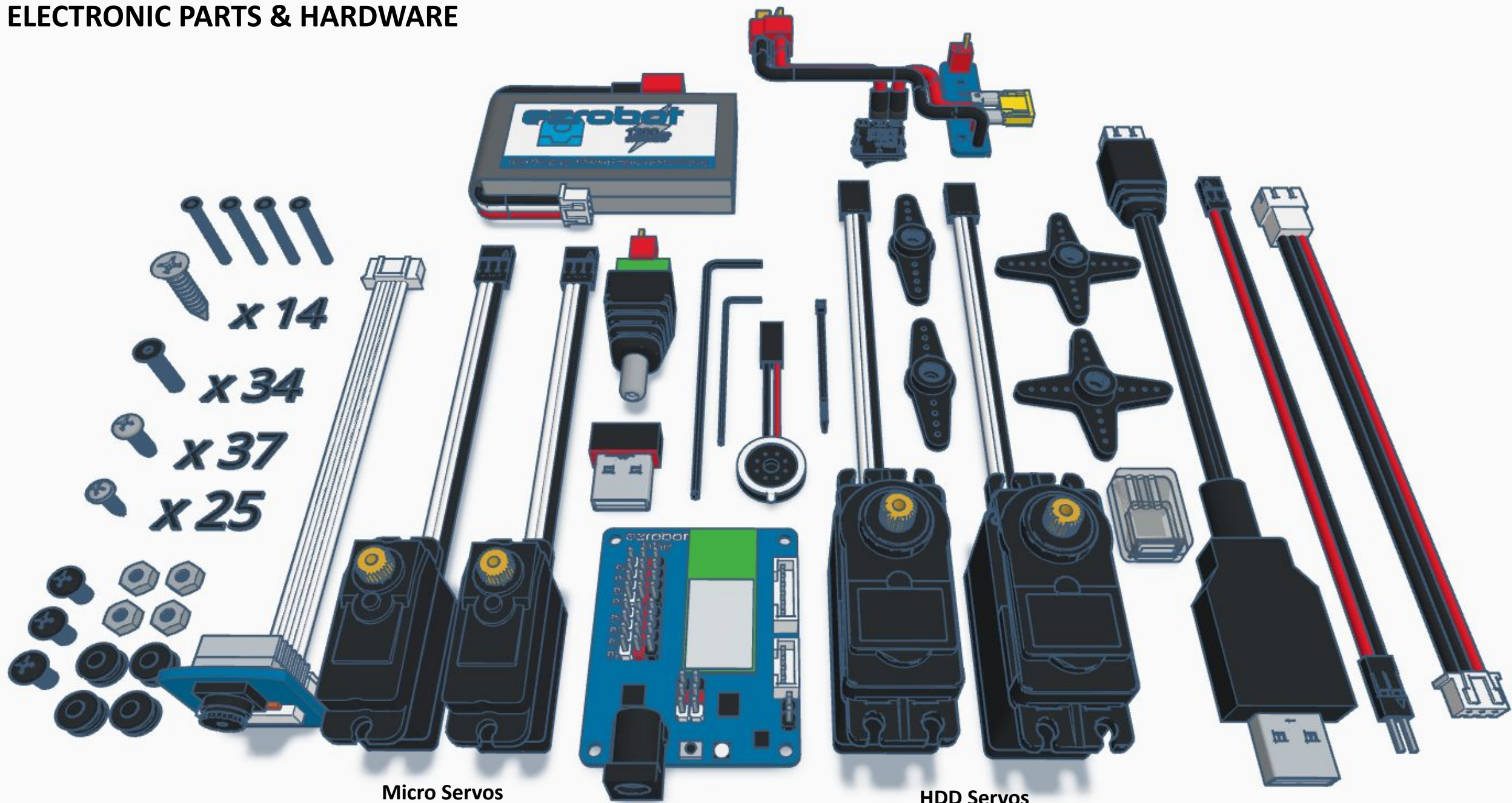


No.1
Phillips
Screwdriver





ELECTRONIC PARTS & HARDWARE



Micro Servos

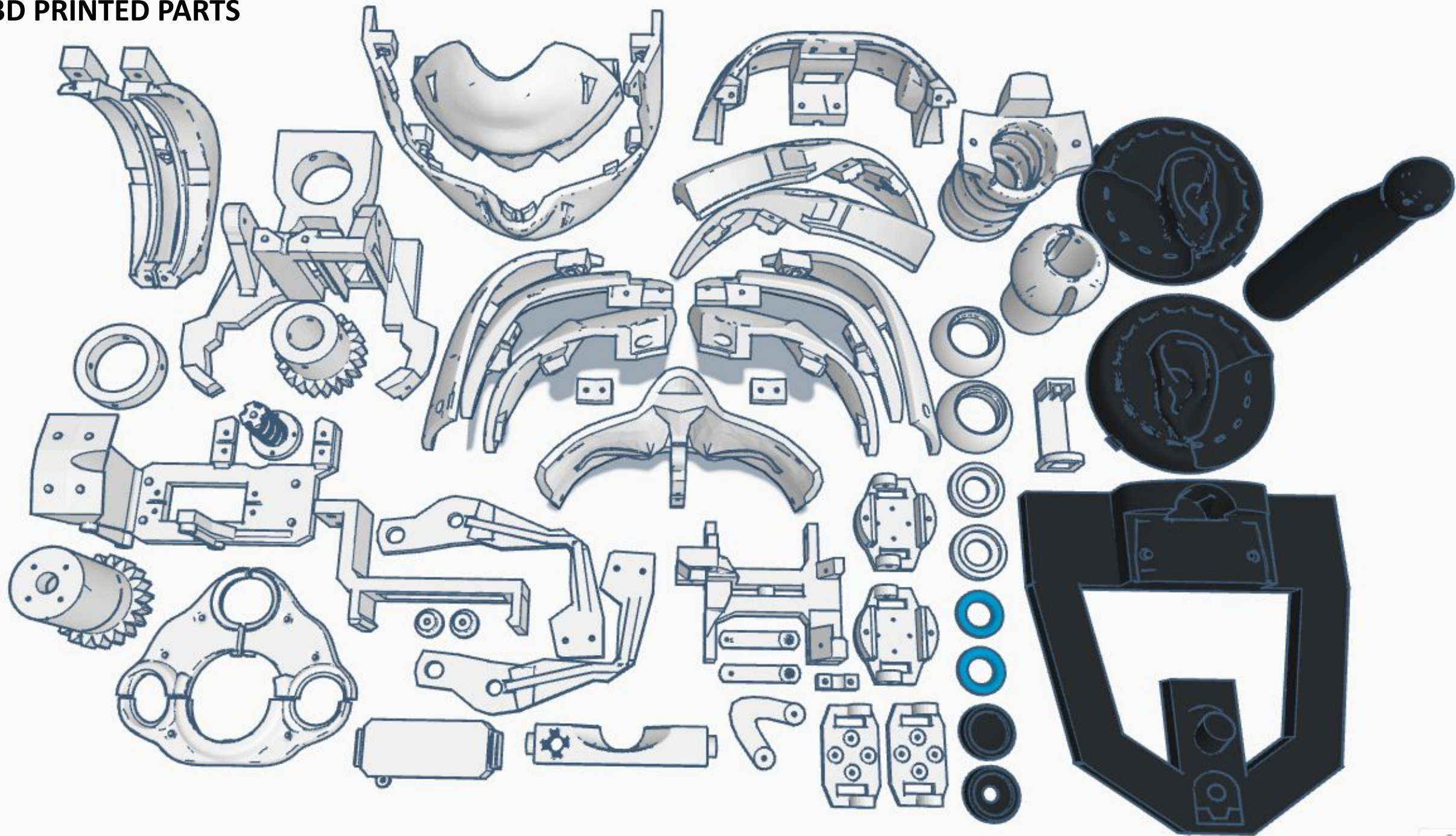
HDD Servos

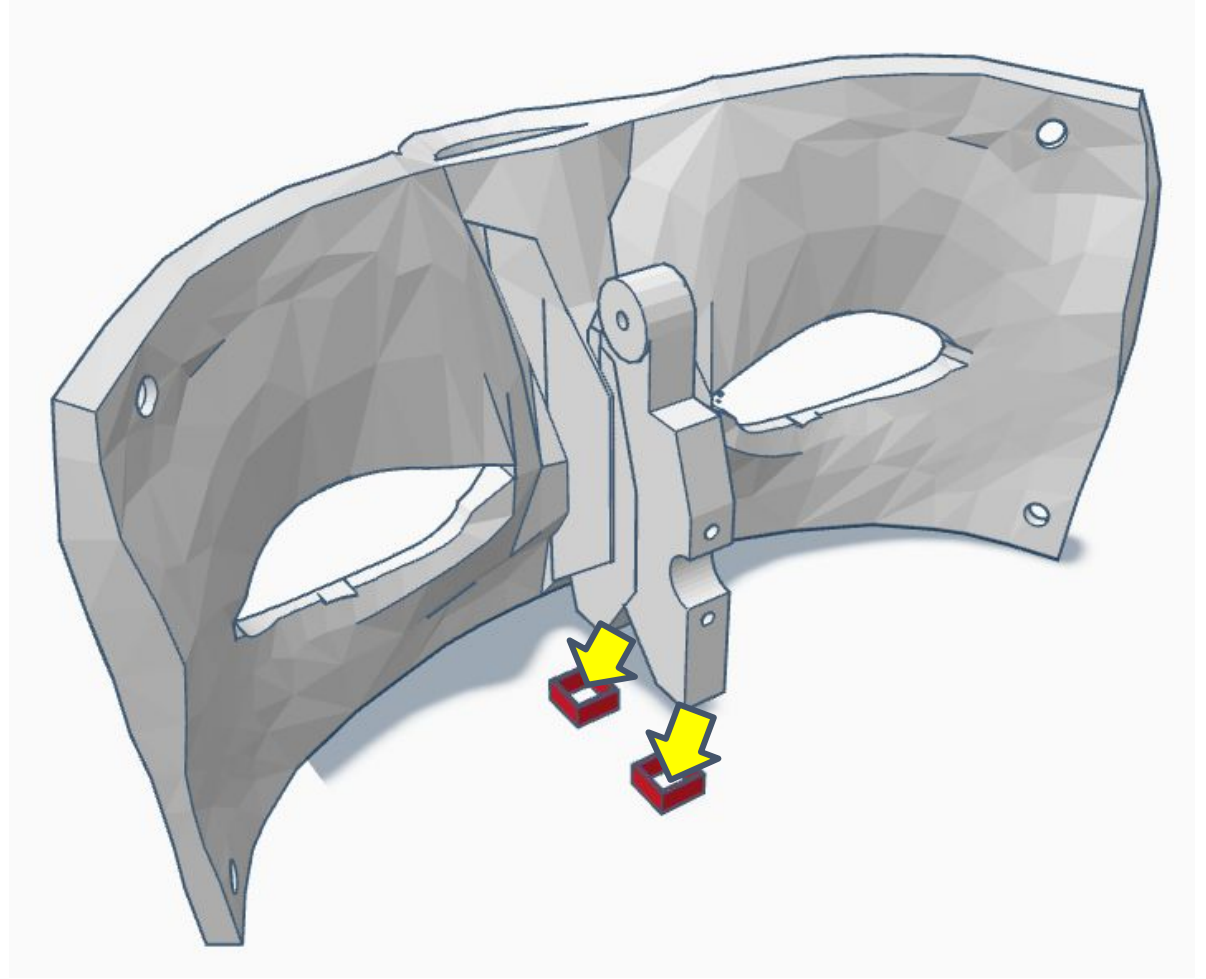
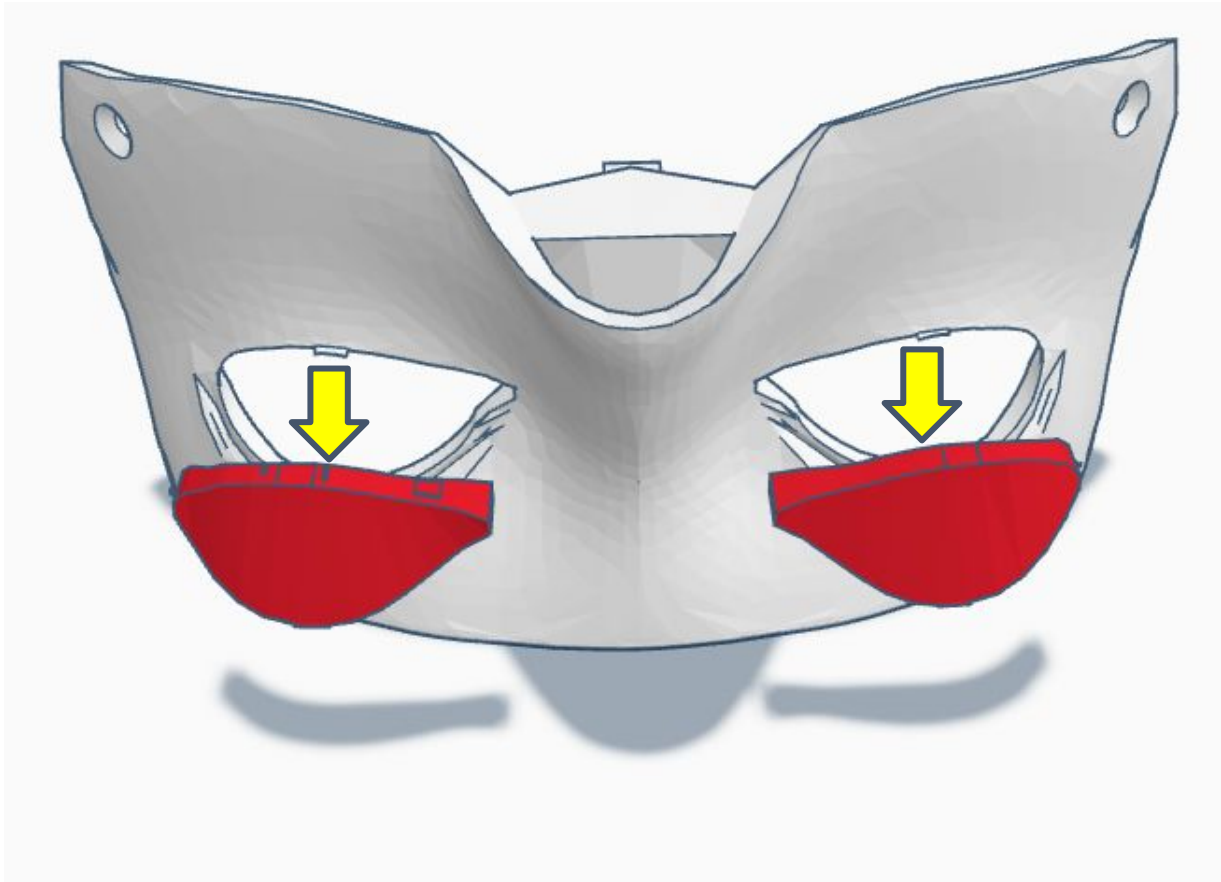
3D PRINTED PART LIST

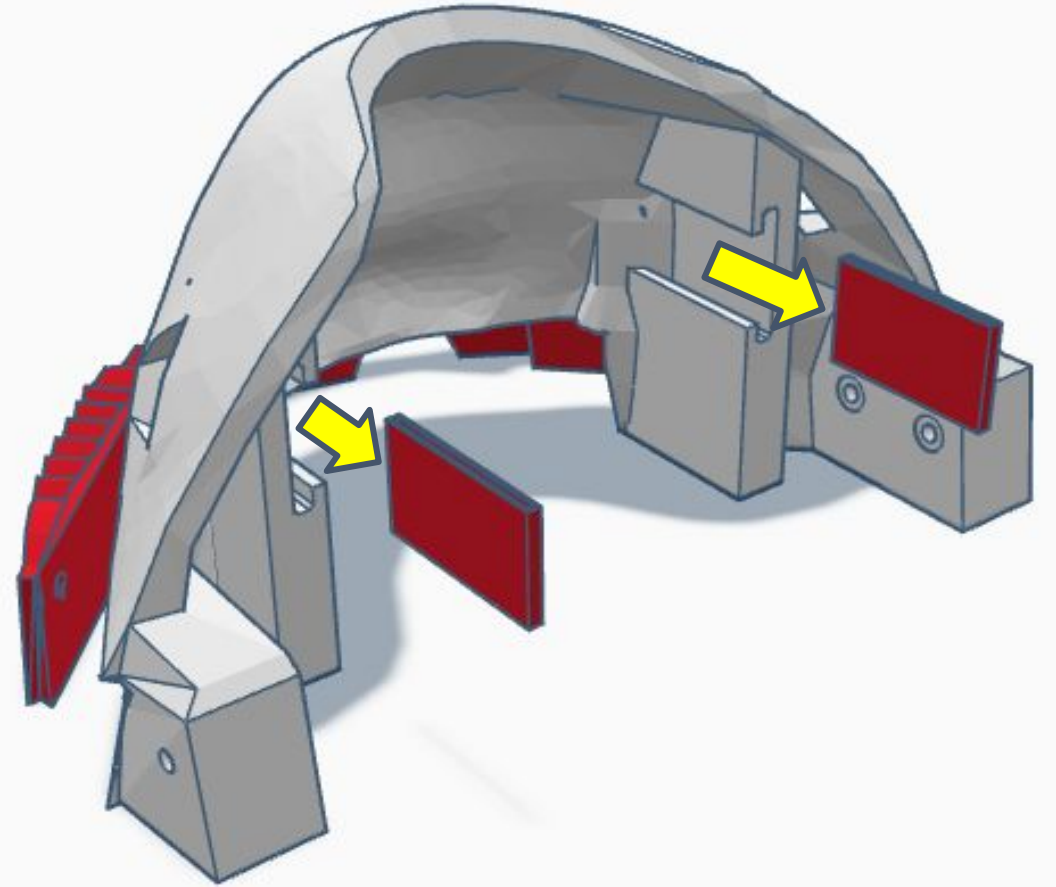
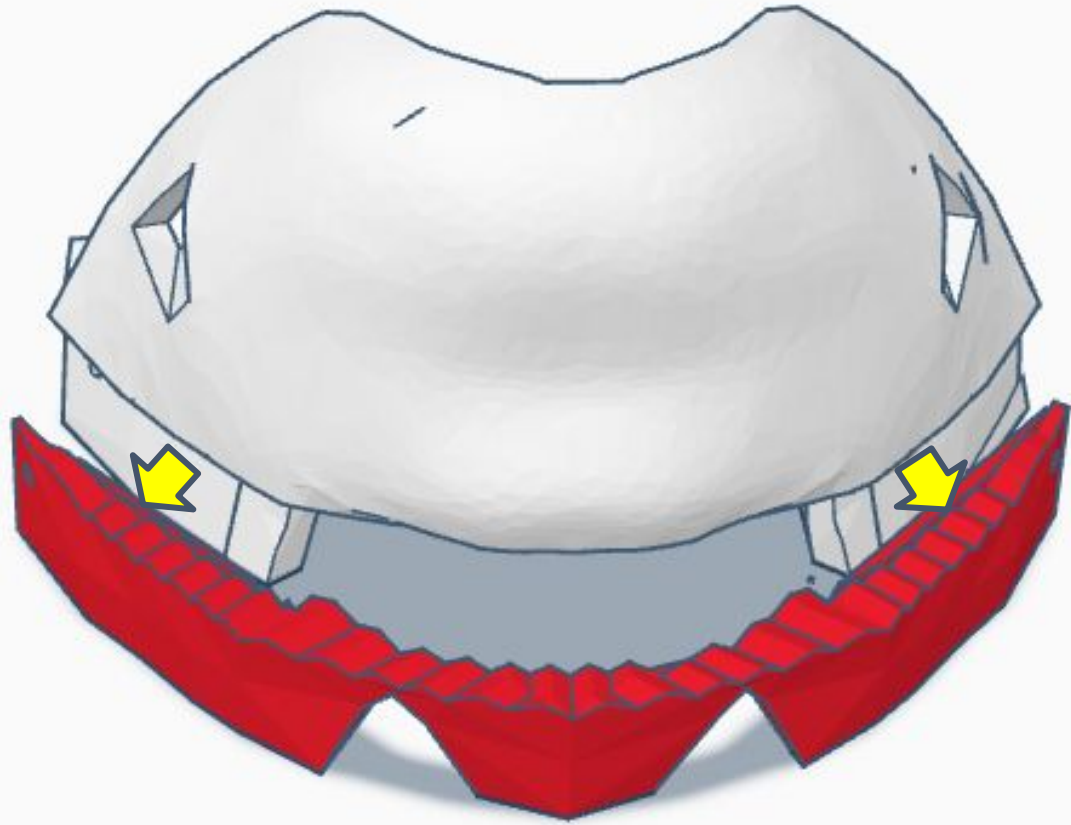
Qty	3D Printed Part	Recommended Color
1	EarLeftV1	Black
1	EarRightV1	Black
2	EyeBallSupportEZcameraV2	Any color
2	EyePlateV2	Any color
1	EyeBallCameraPupil	Black
1	EyeBallSolidPupil	Black
2	EyeBallV2	White
2	EyeBalliris	Blue, Green, Brown, etc.
2	EyeBallinsertV2	White
1	EyeglassV5	White
1	EyeHingeLeftV3	Any color
1	EyeHingeRightV3	Any color
1	EyeHingeCurveV1	Any color
1	EyeSupportV6	Any color
1	EyeHolderV1	Any color
1	ServoGearV3	White
1	MainGearV3	White
1	RingV3	Any color
1	VoiceBoxV1	White
1	JawPistonV2	White

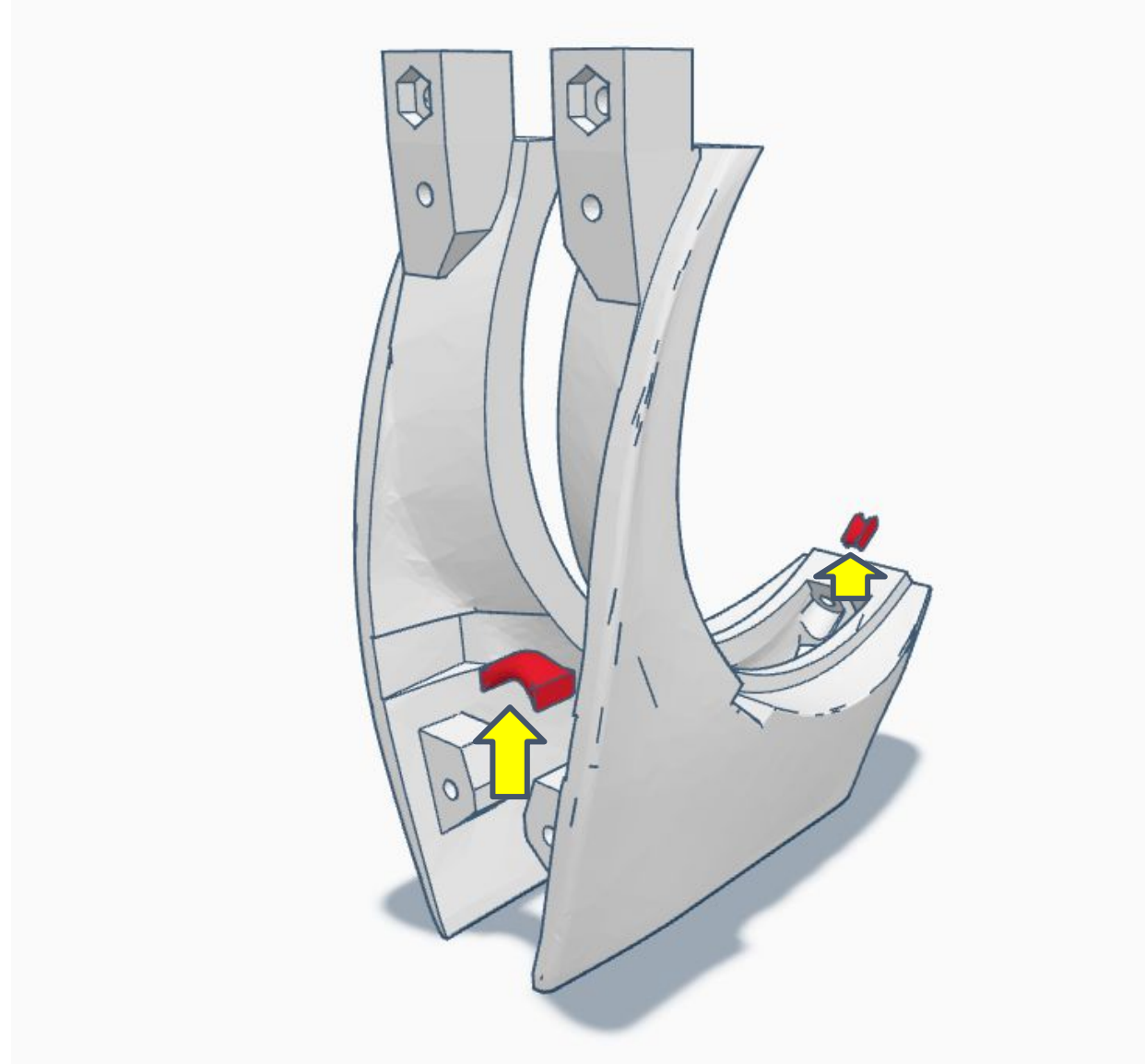
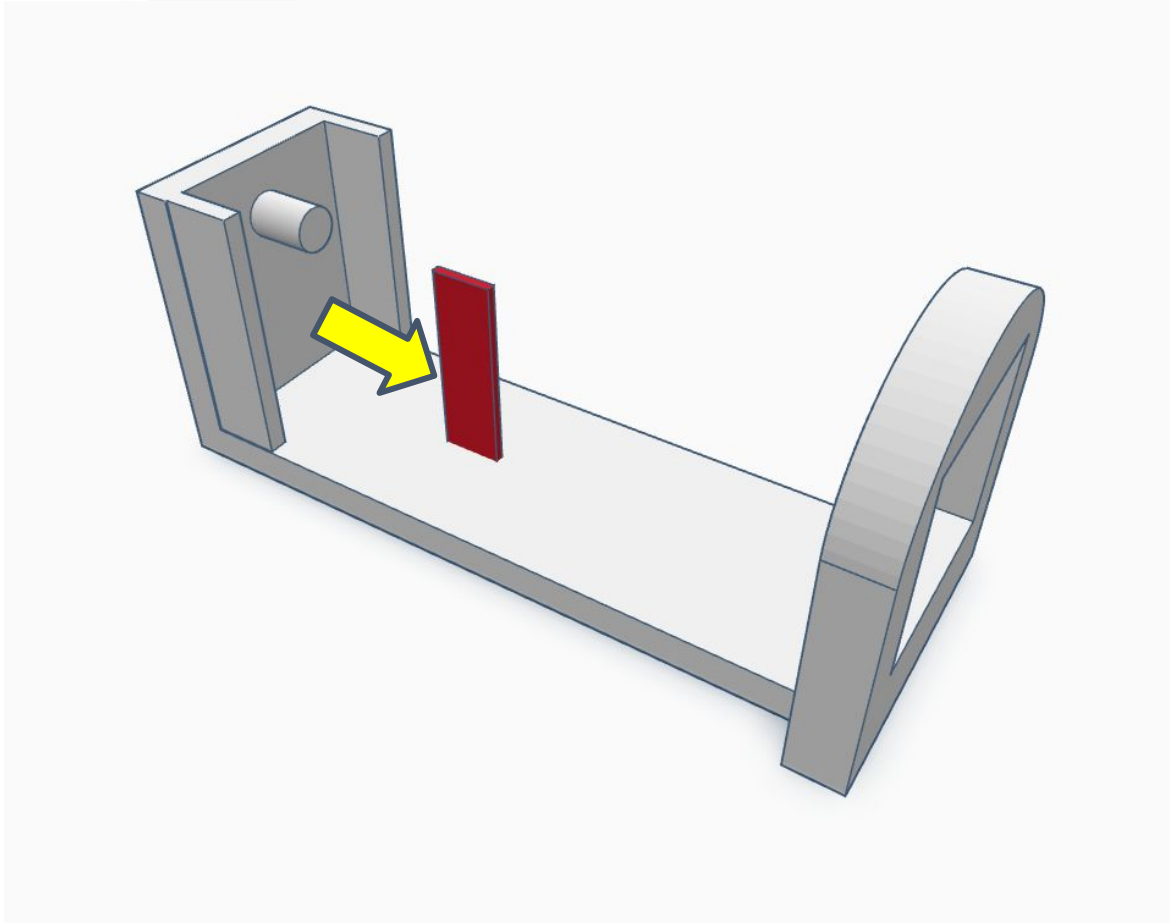
Qty	3D Printed Part	Recommended Color
1	JawSupportV2	White
1	JawHingeV1_wide	White
1	JawV5	White
2	PivotCupV2	Anycolor
1	Head_Stand_EZ-Robot_Logo	Black
1	NeckPistonFrontV2	Black
1	NeckPlateV3	White
1	NeckPlateHighV3	White
1	NeckJointLowerV5	White
1	NeckV3	White
1	LowBackV6	White
1	SideHearV5	White
1	TopBackSkullV5	White
1	TopMouthV5	White
1	TopSkullLeftV5	White
1	TopSkullRightV5	White
1	UnitedInternalSupportV1	Any color
1	BatterySupportV1	Any color
1	SkullServoV2	Any color
1	PowerClipV1	Any color

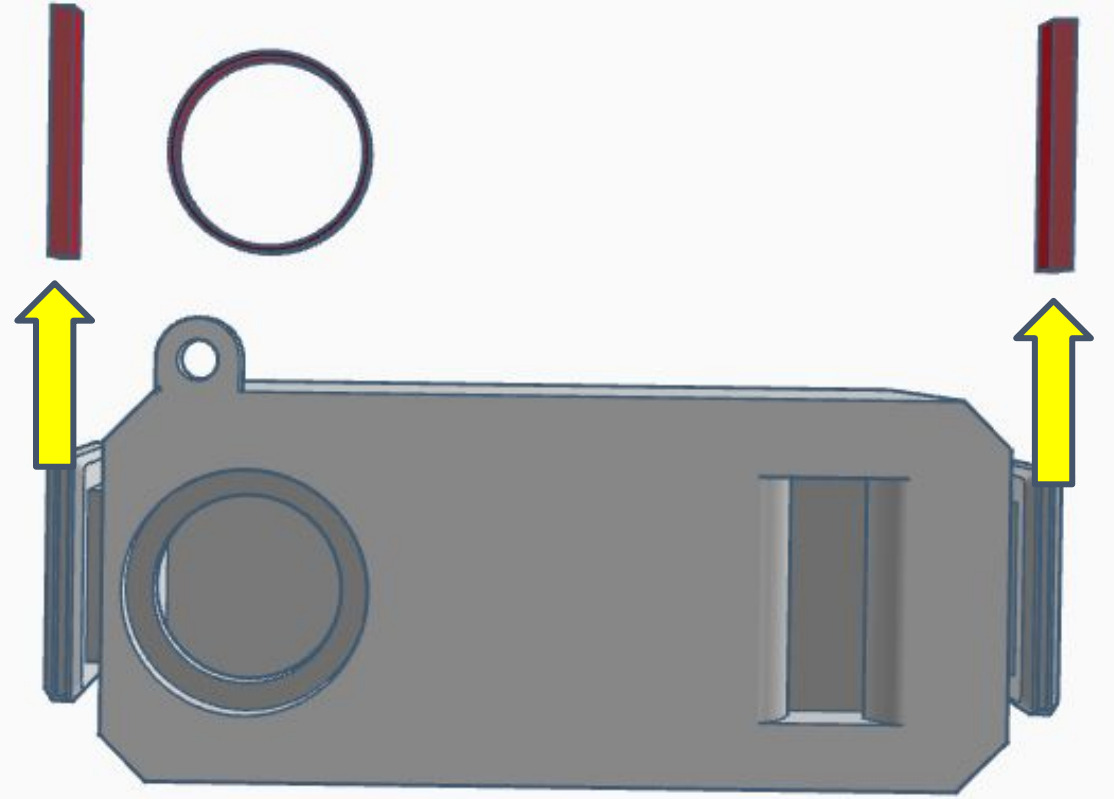
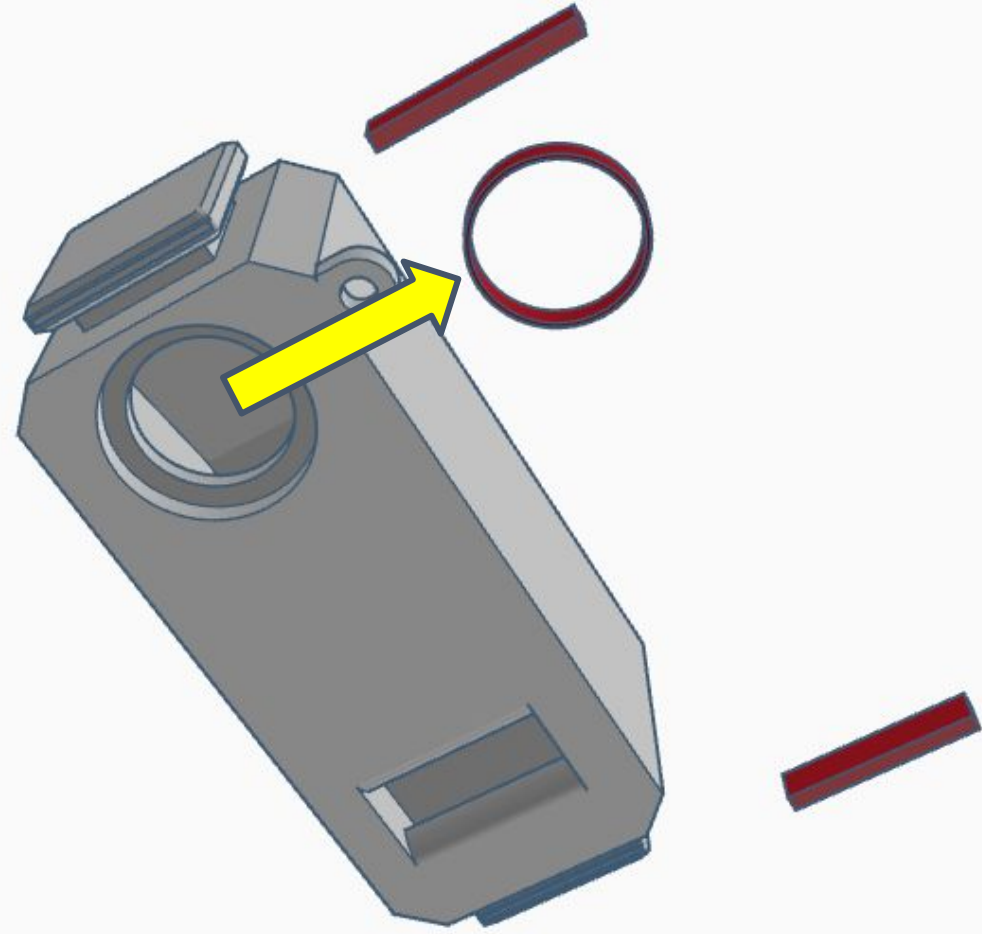
3D PRINTED PARTS

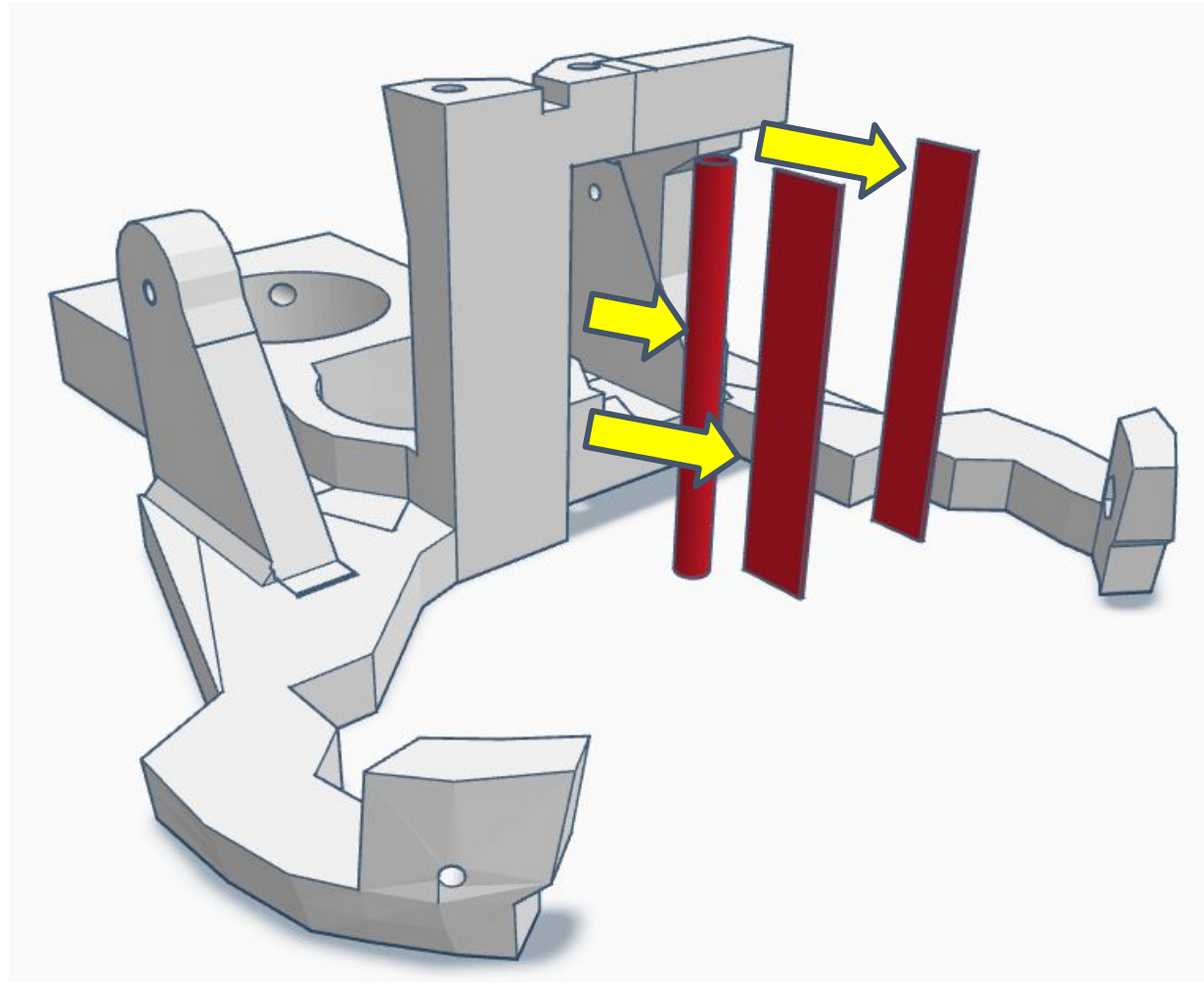
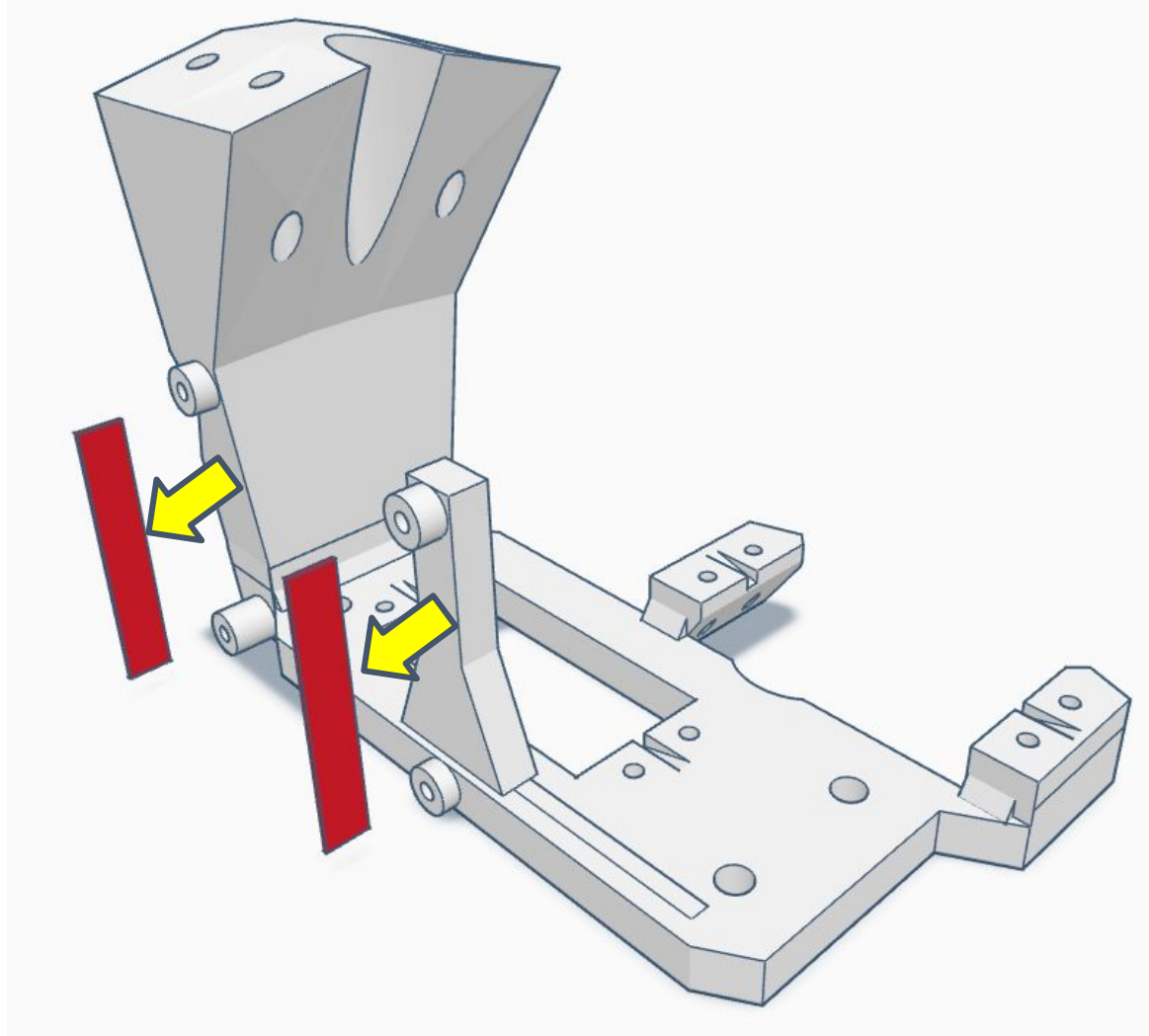


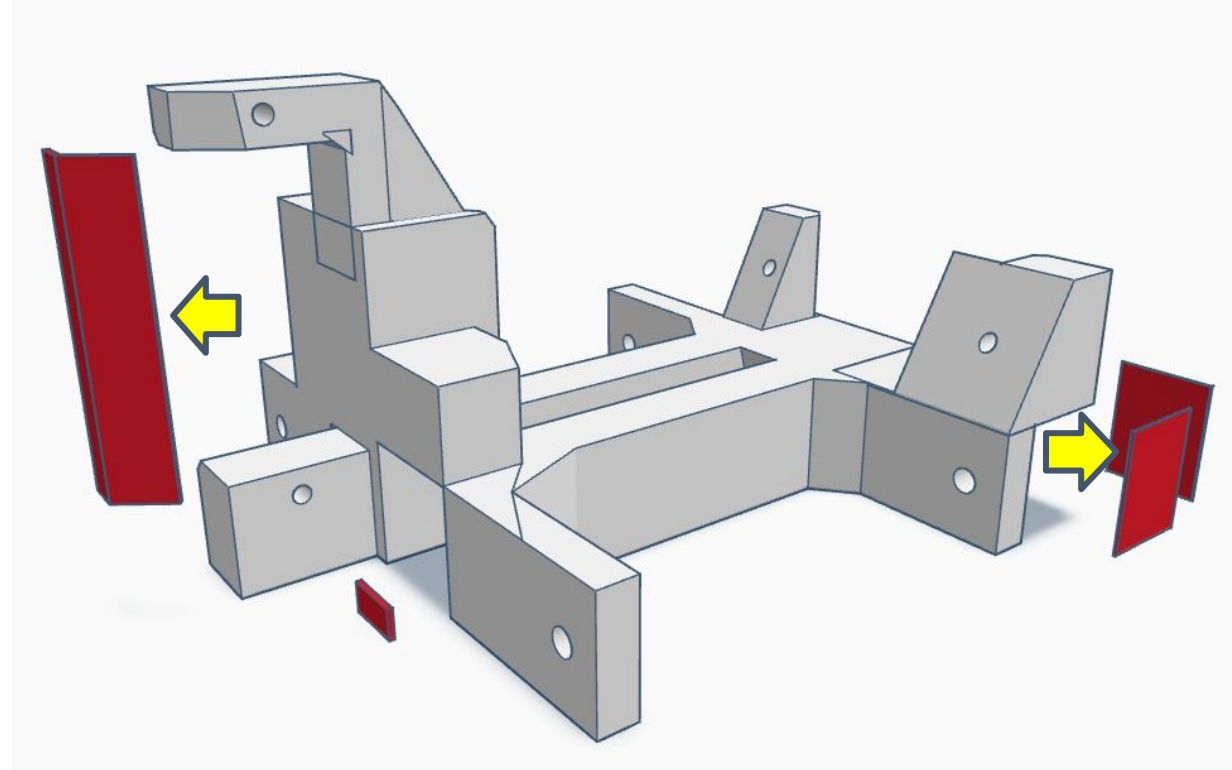
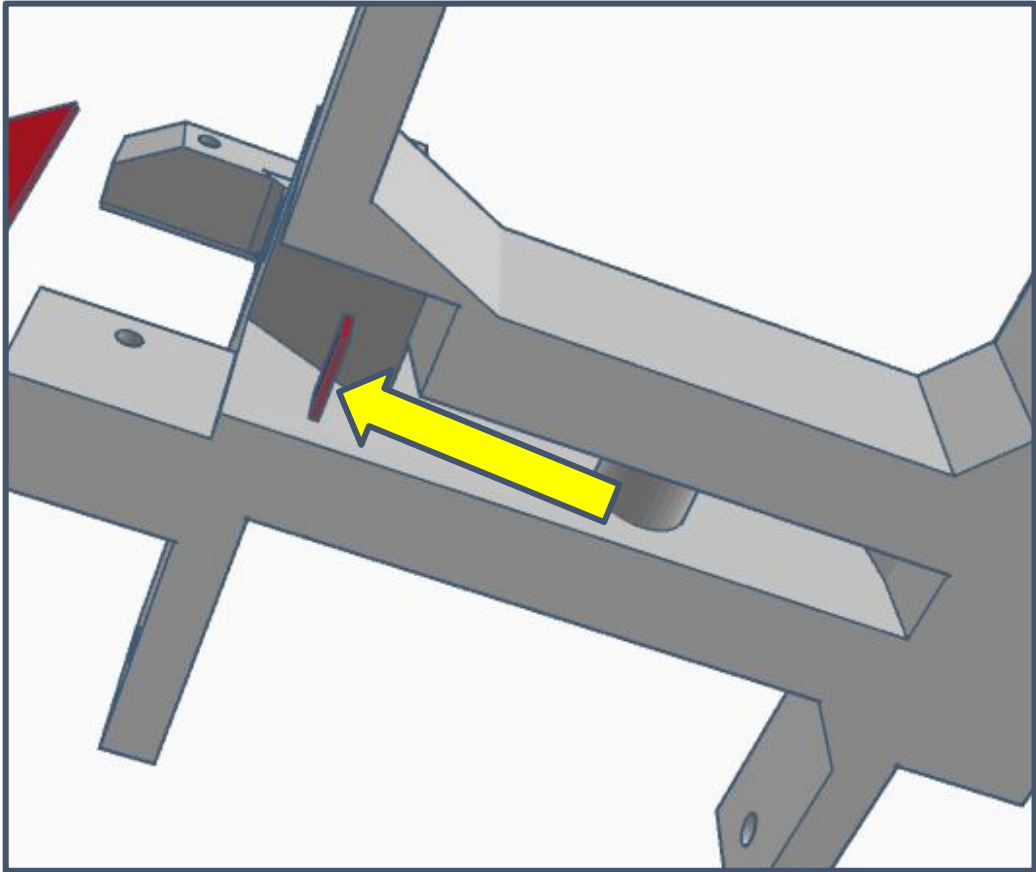
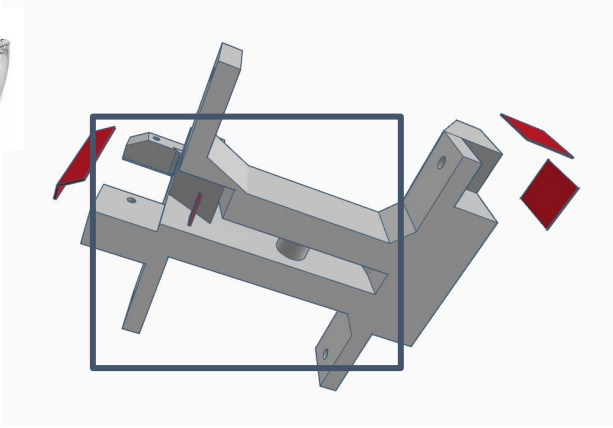


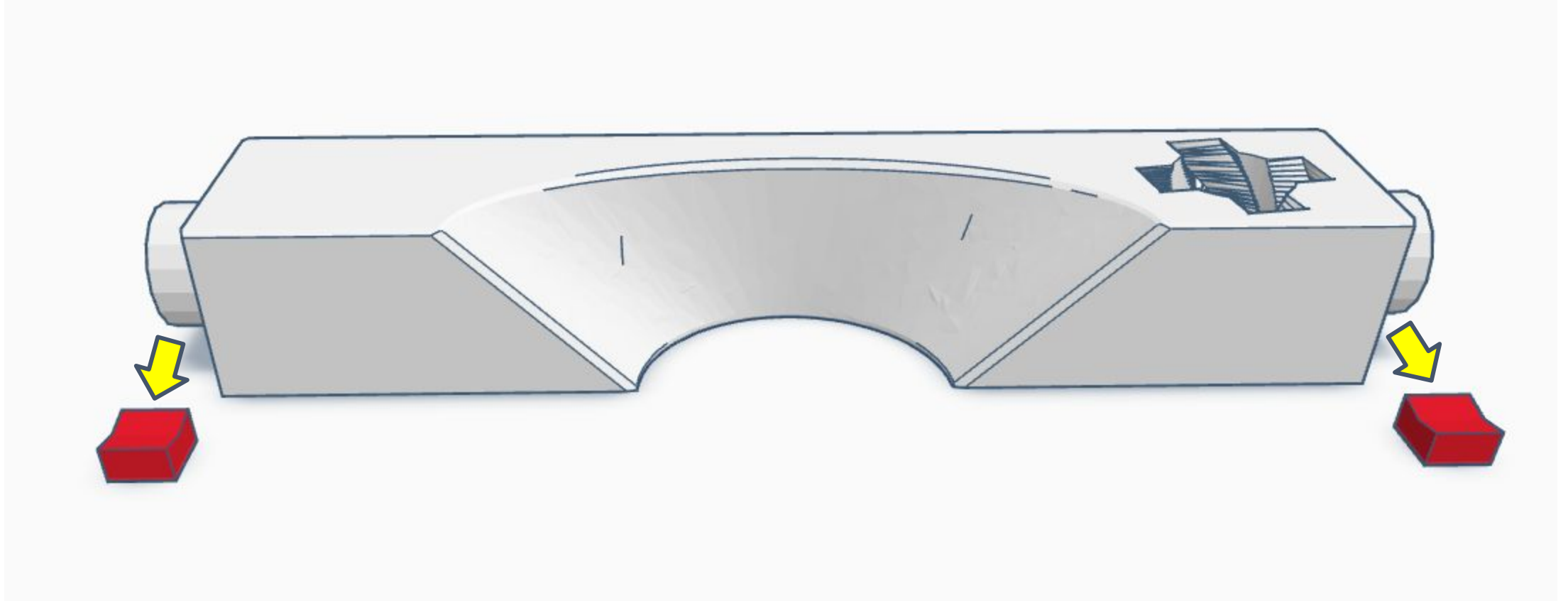


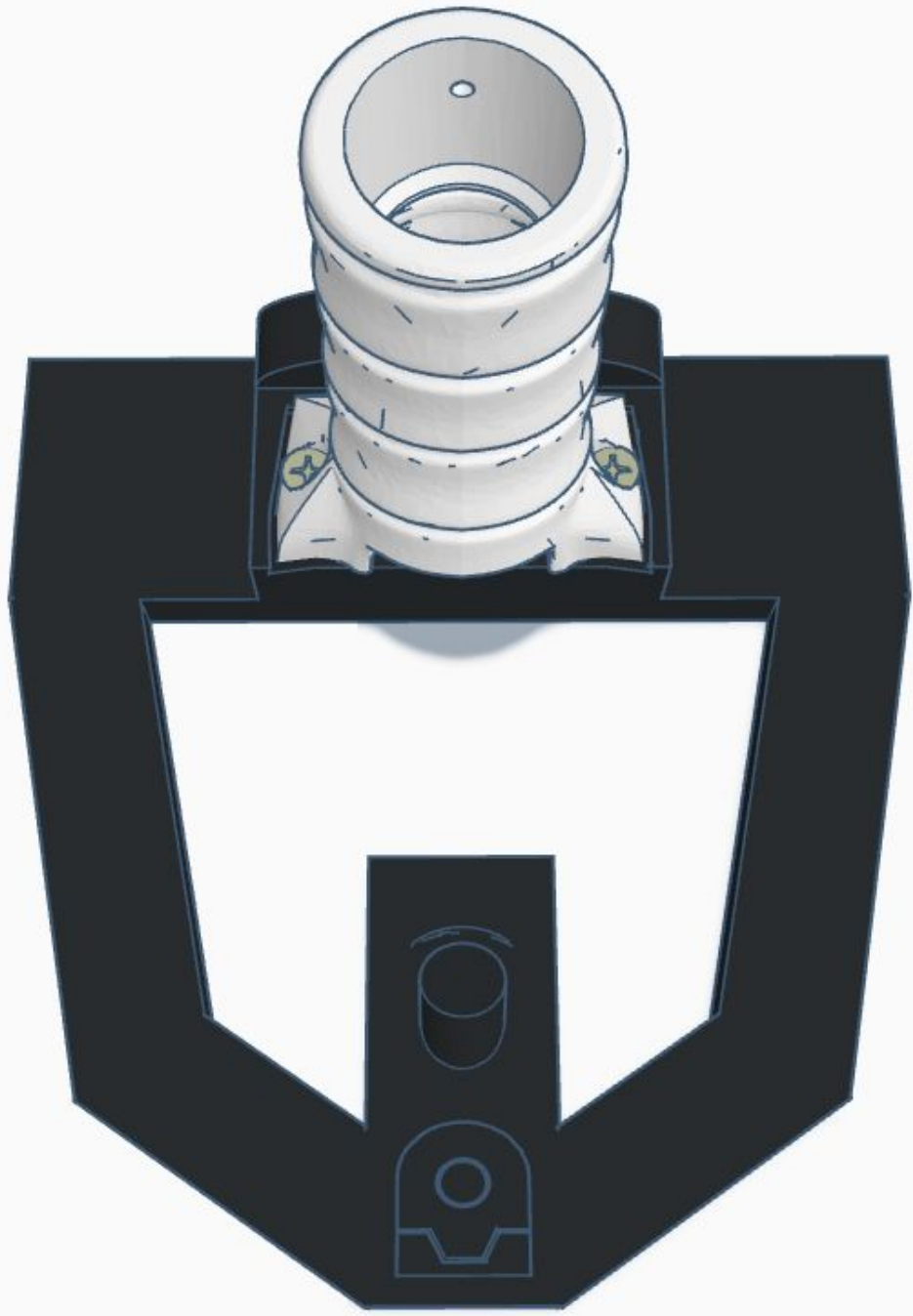
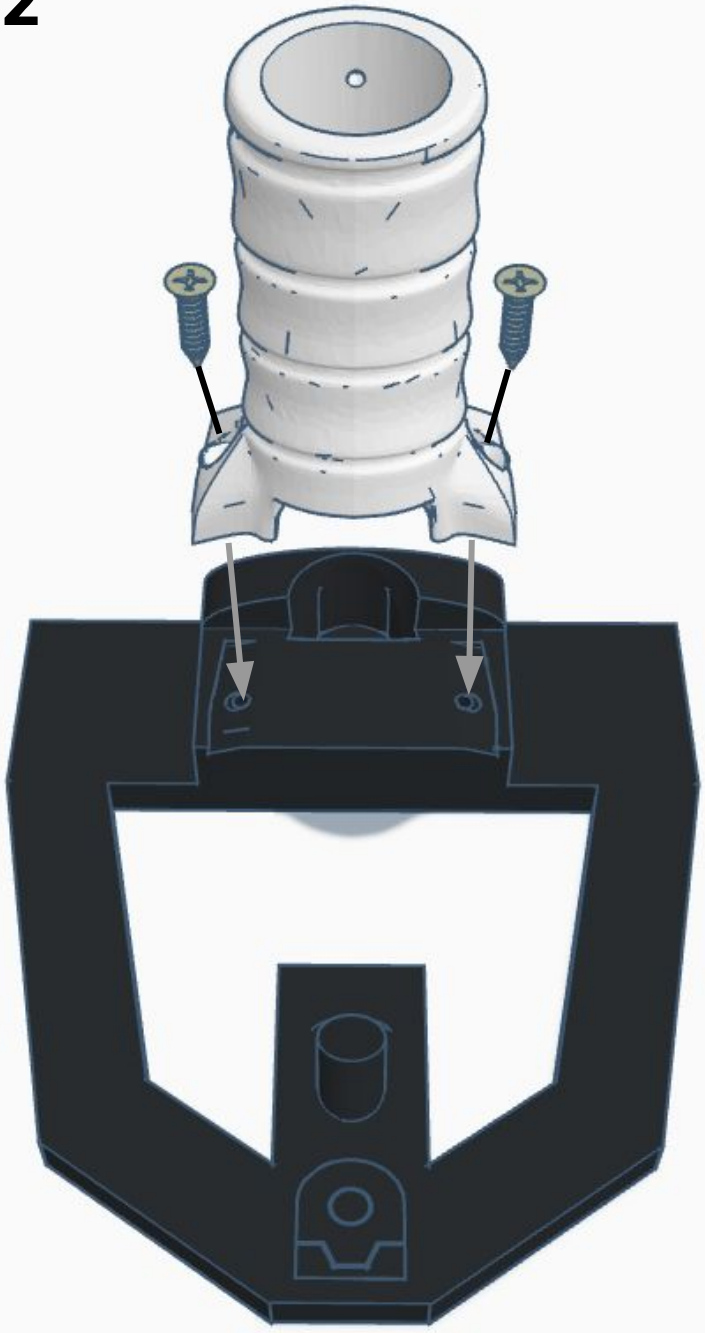
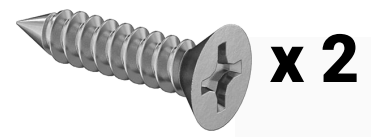




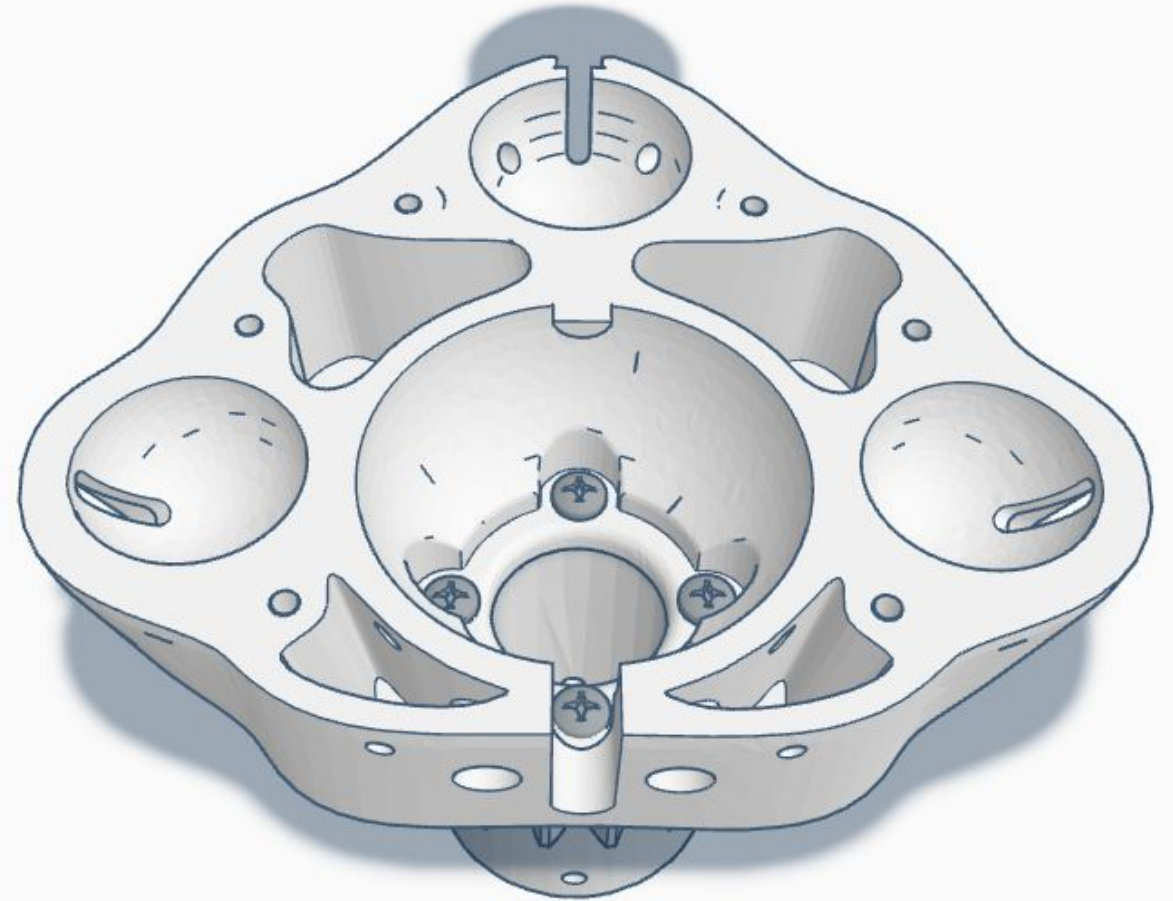
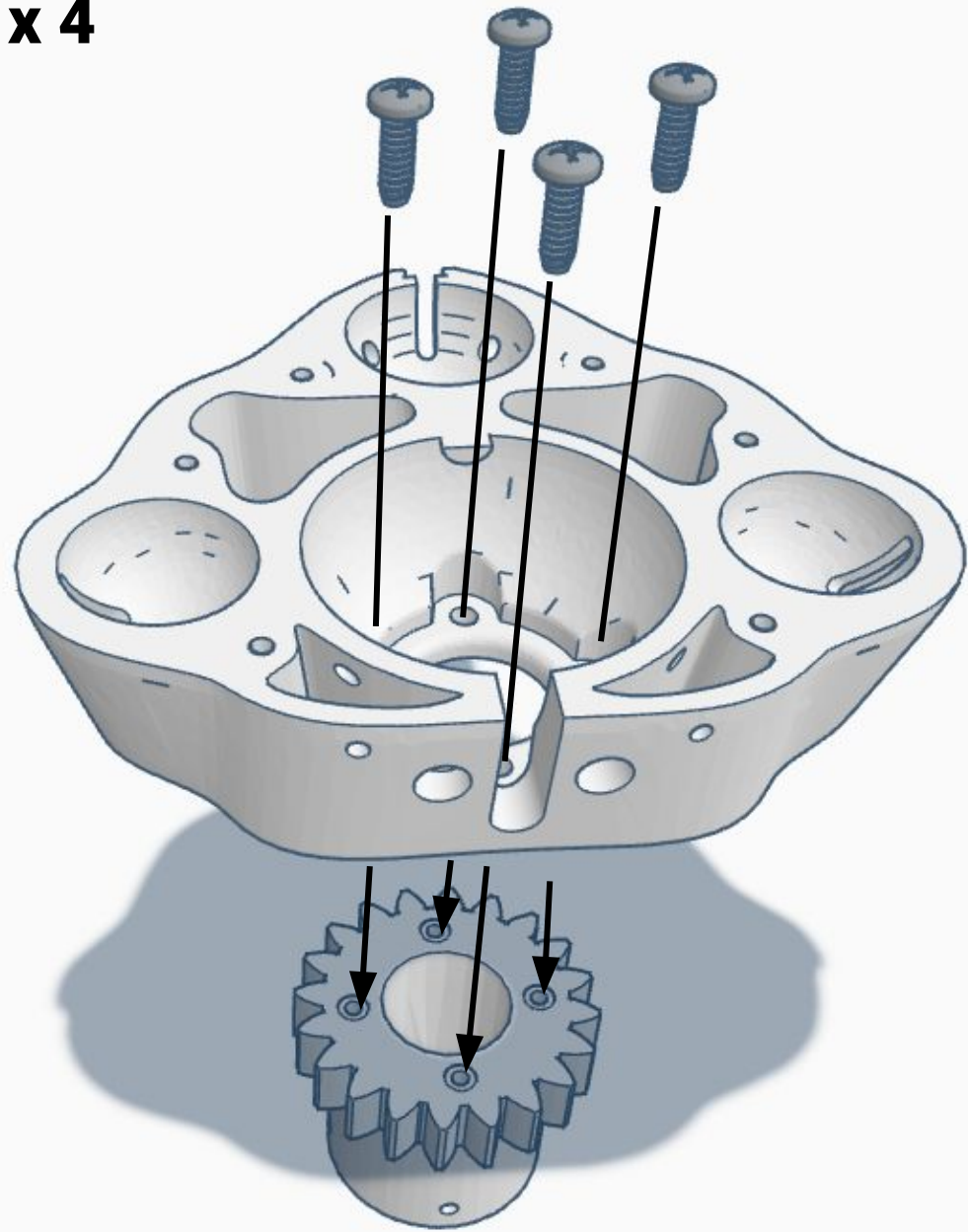





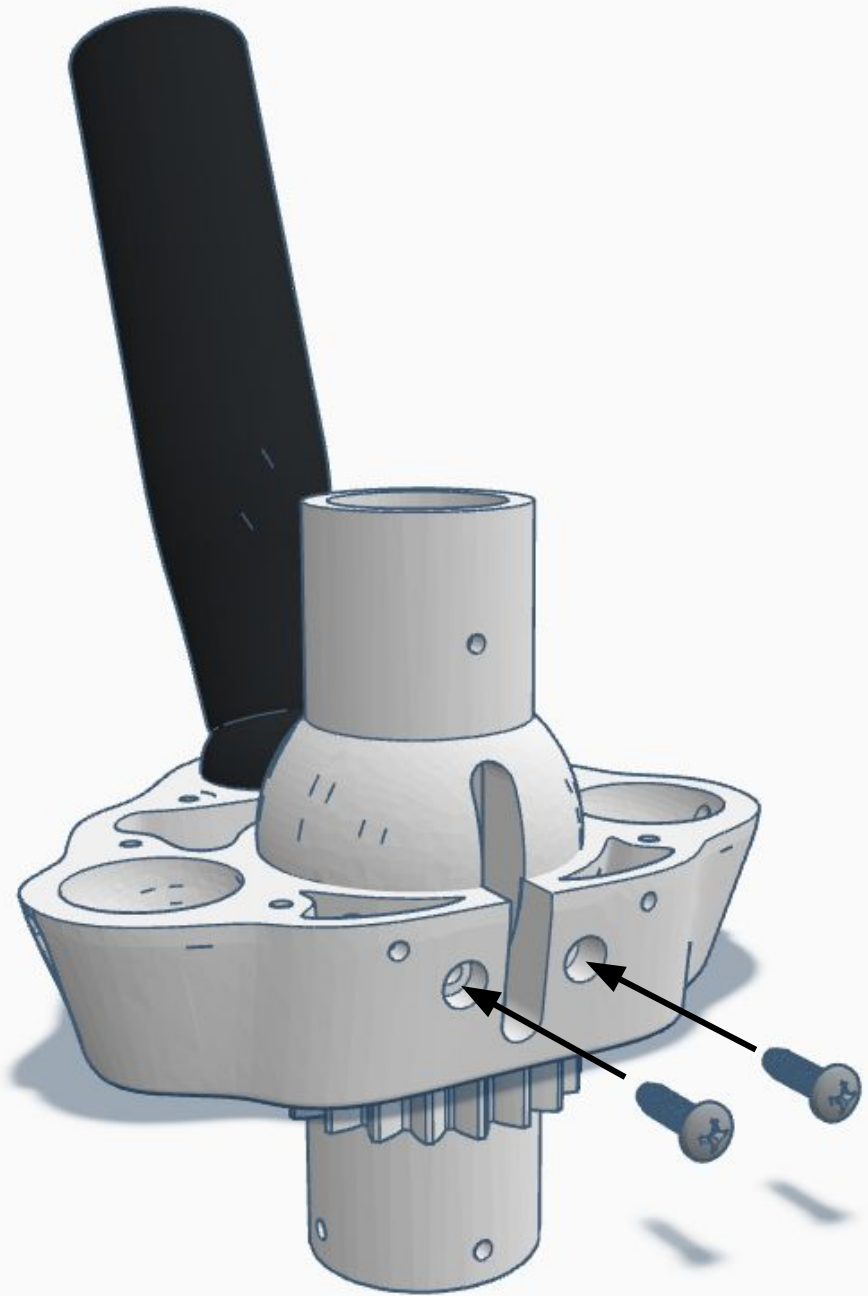
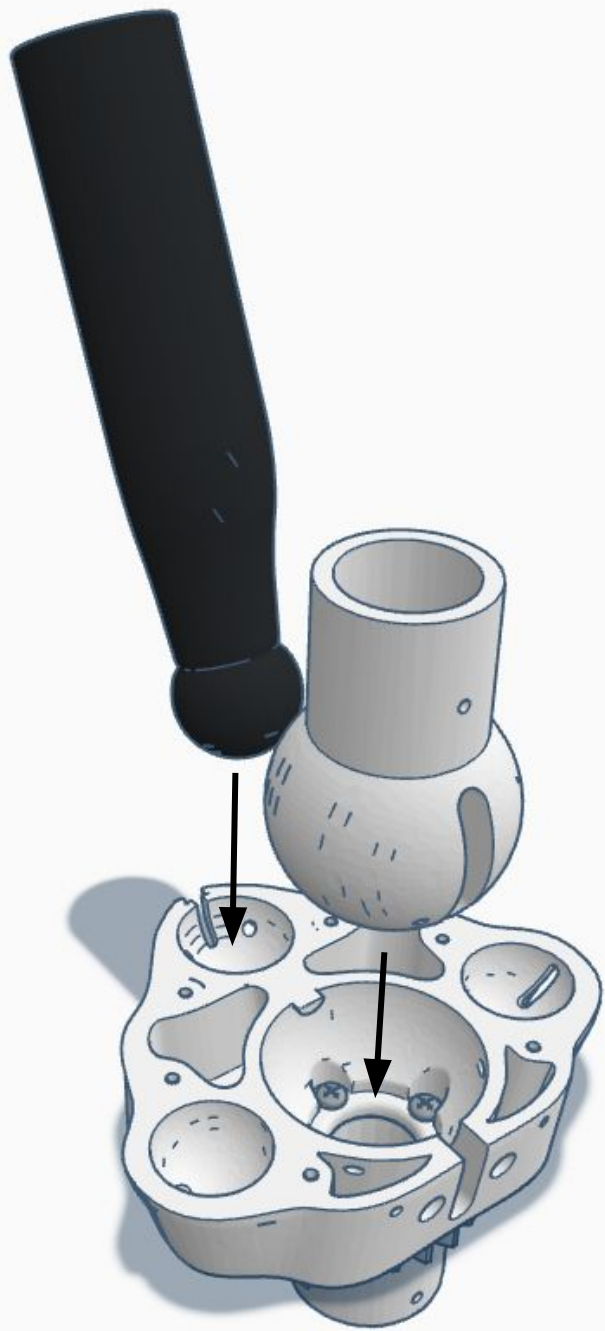





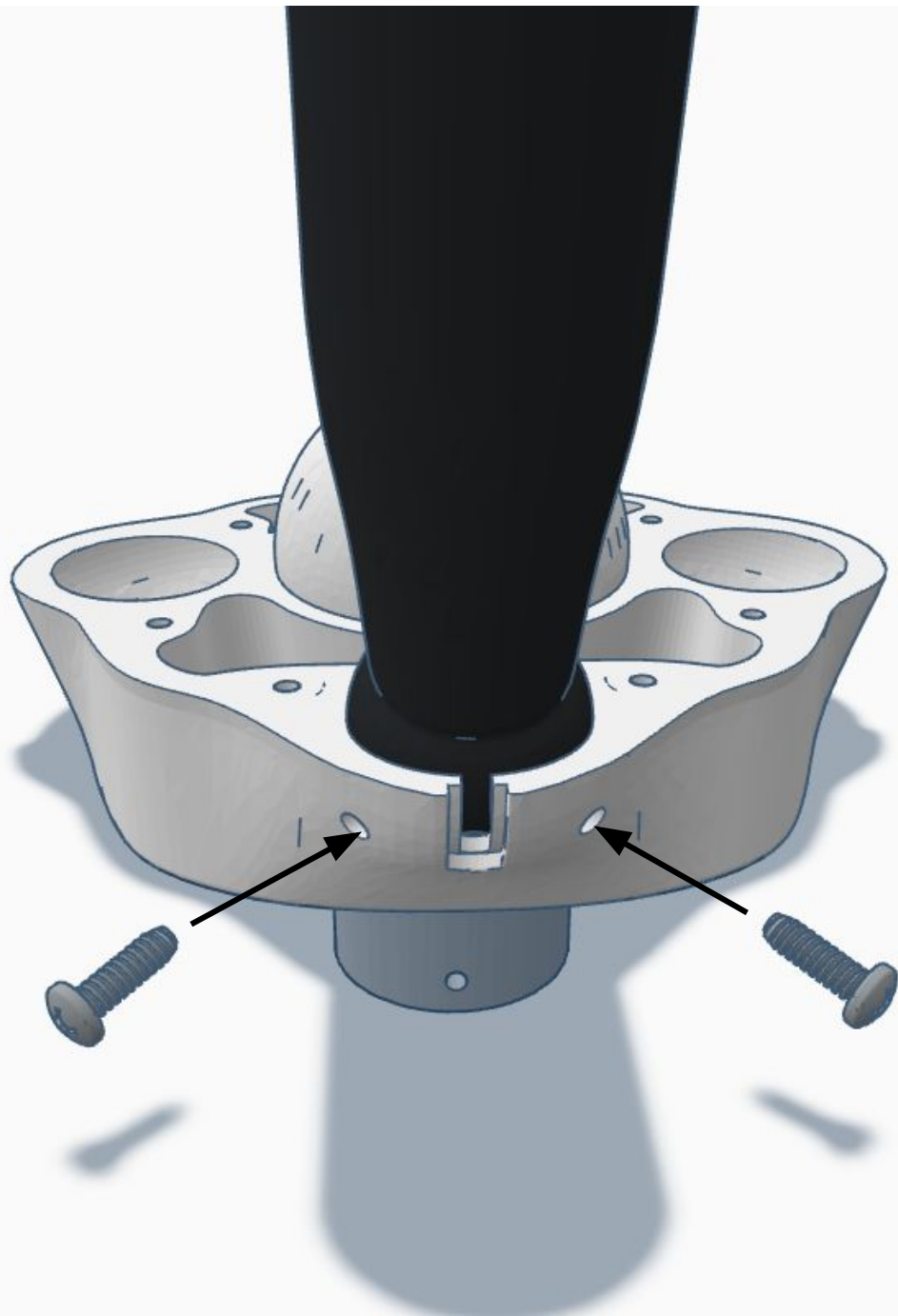
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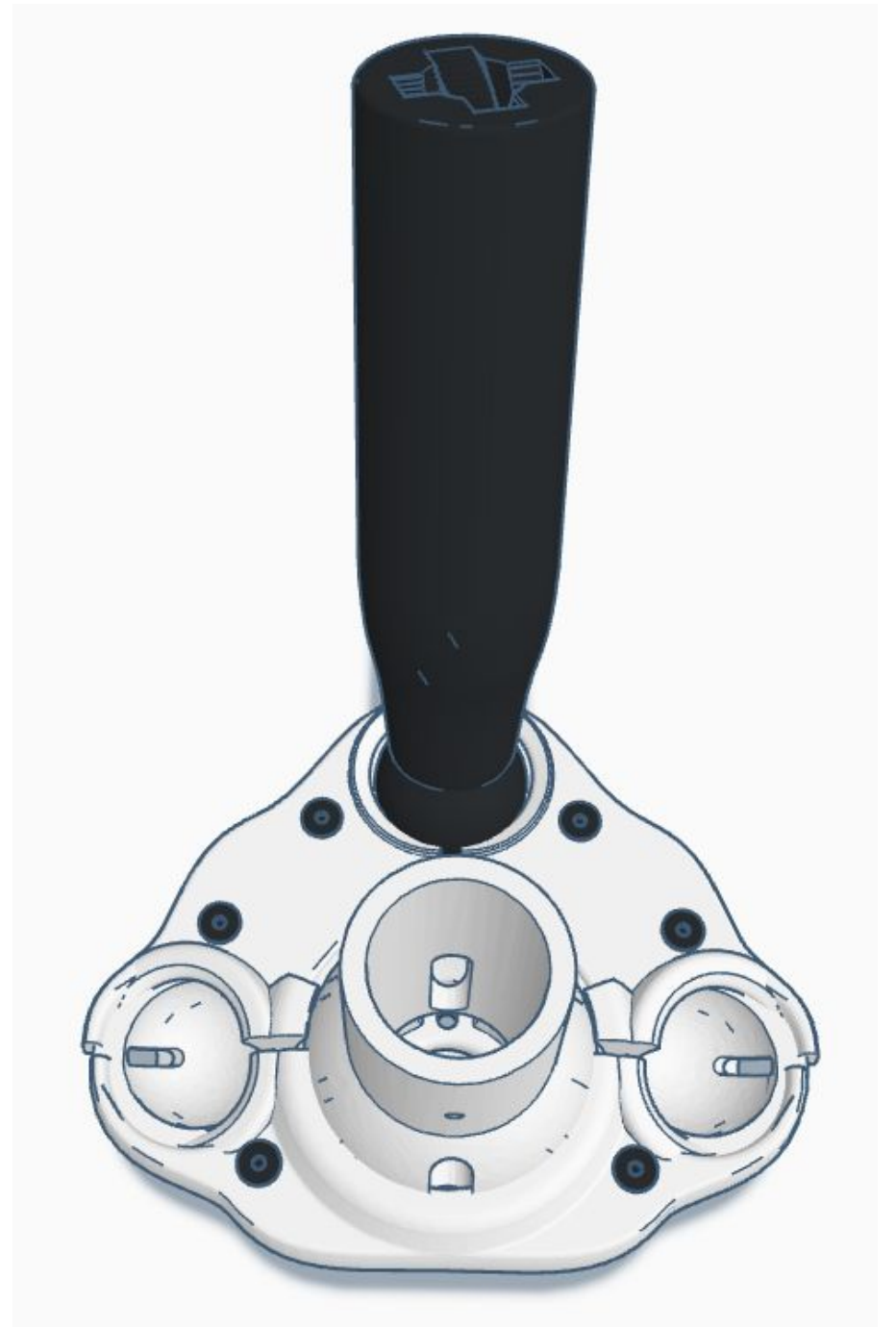
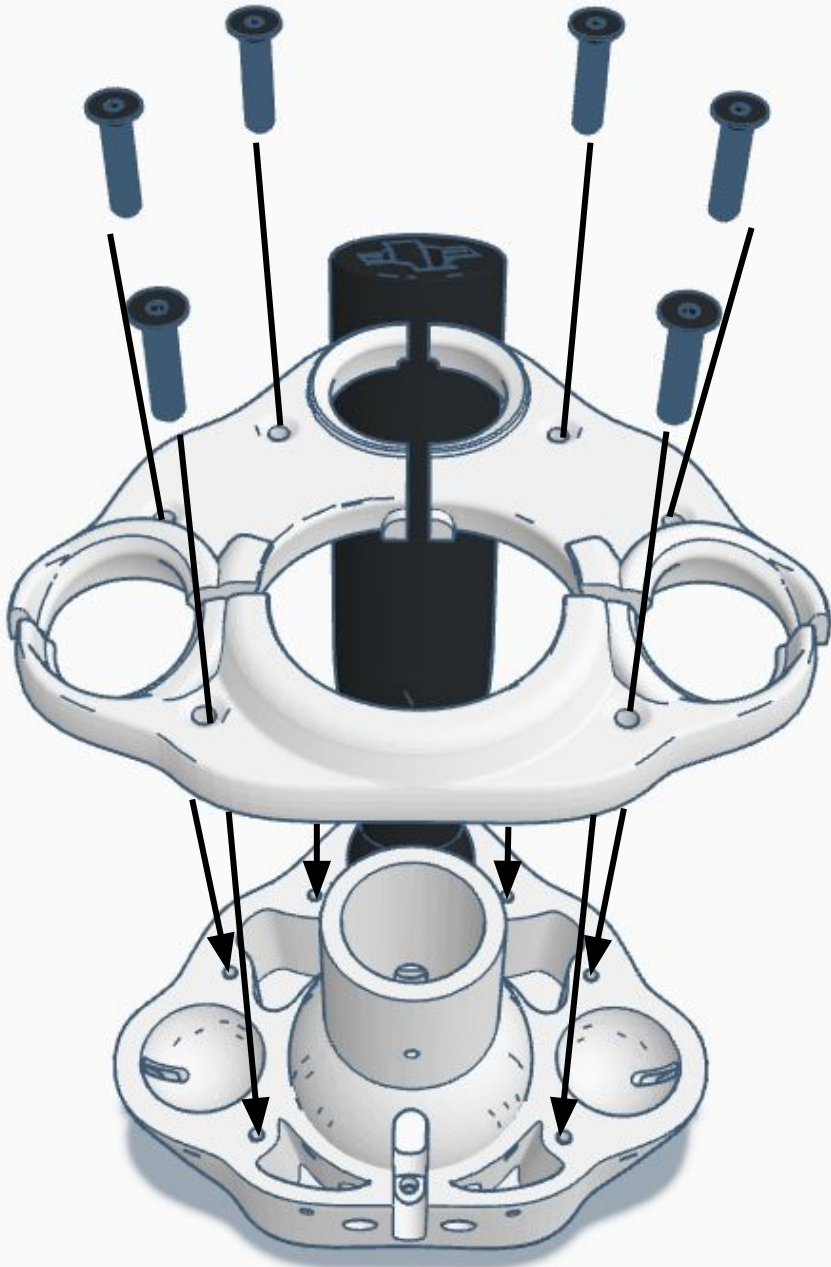
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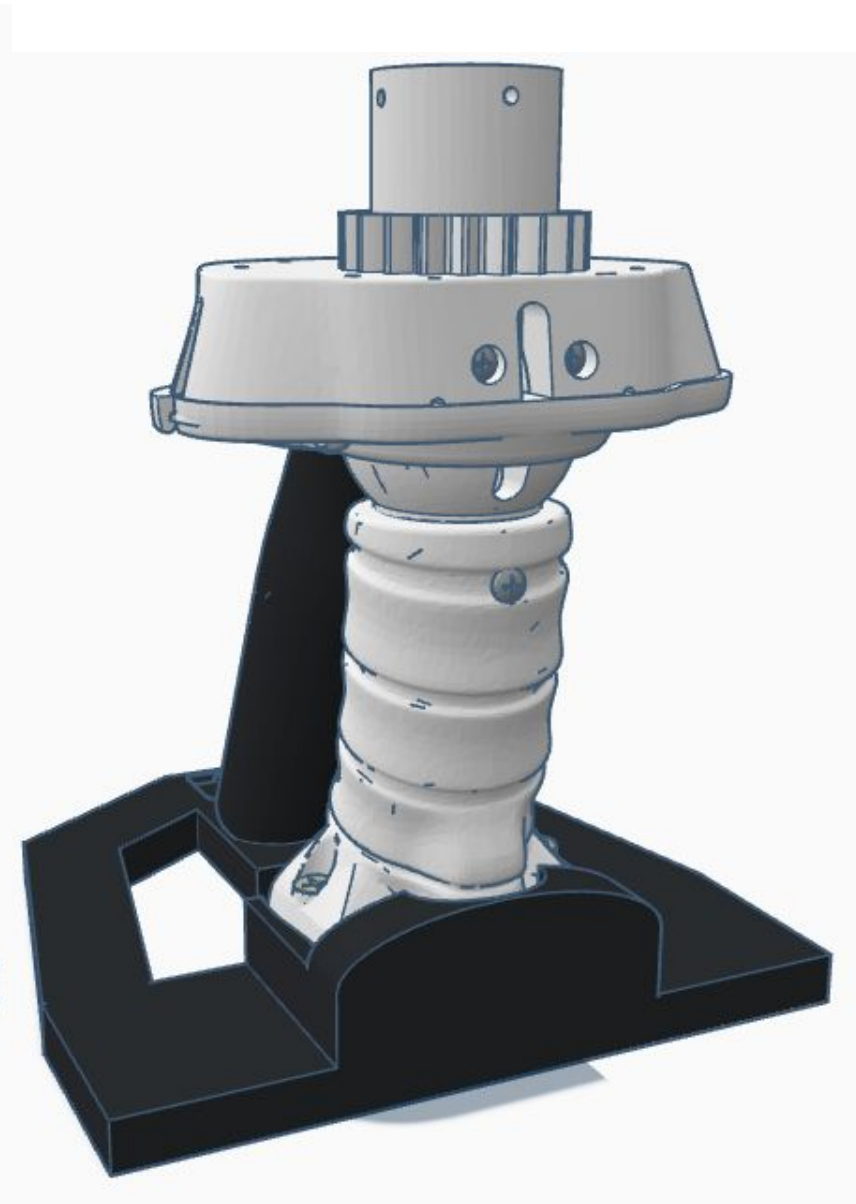
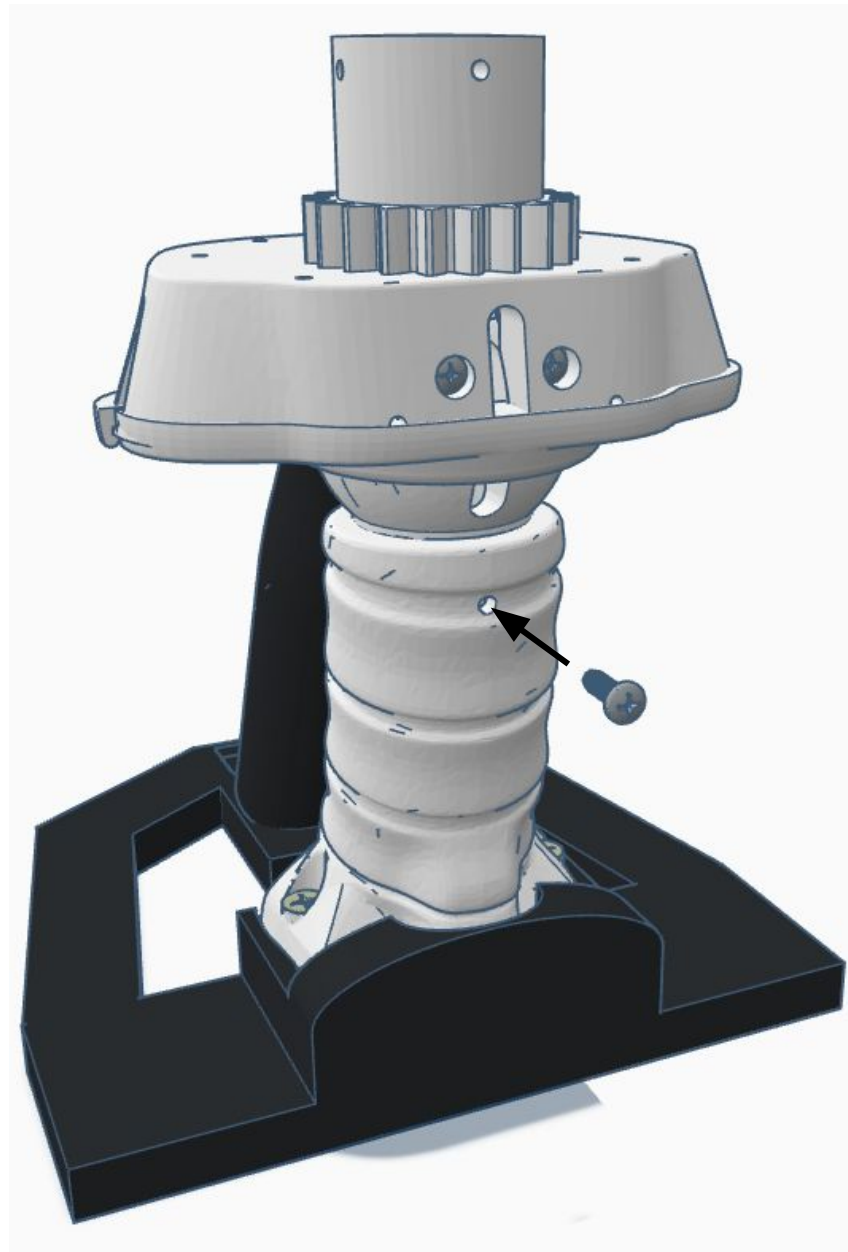
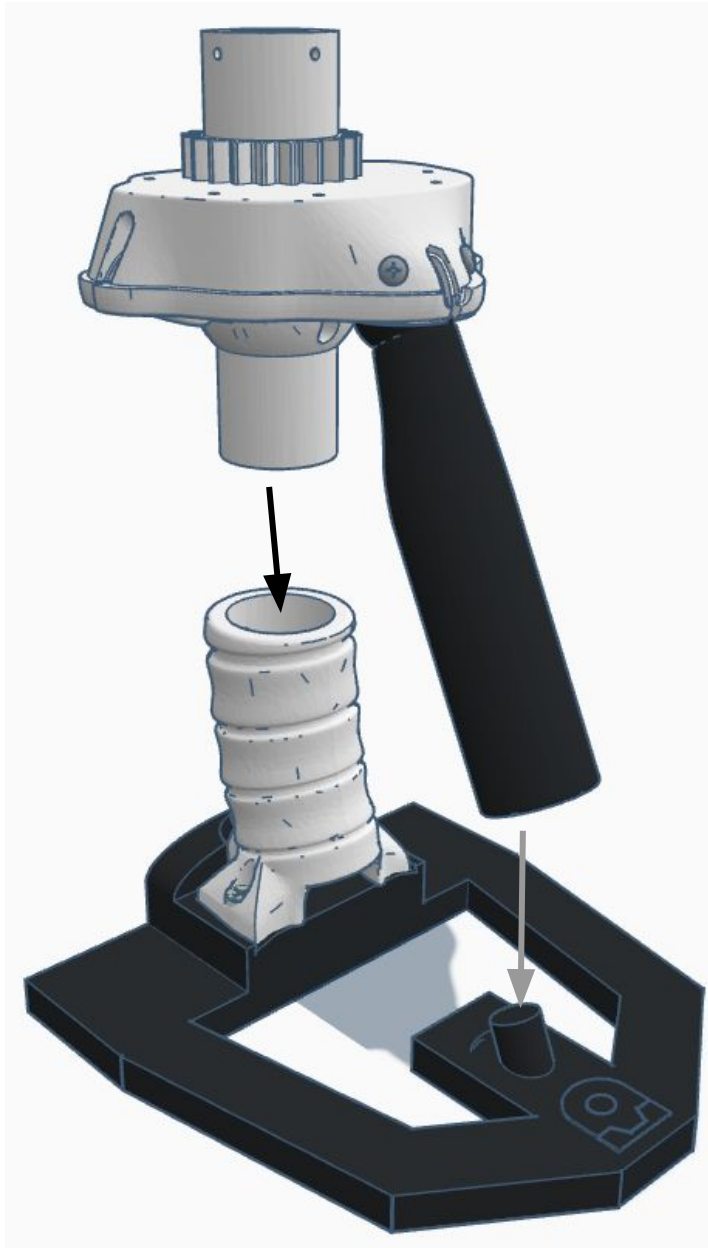
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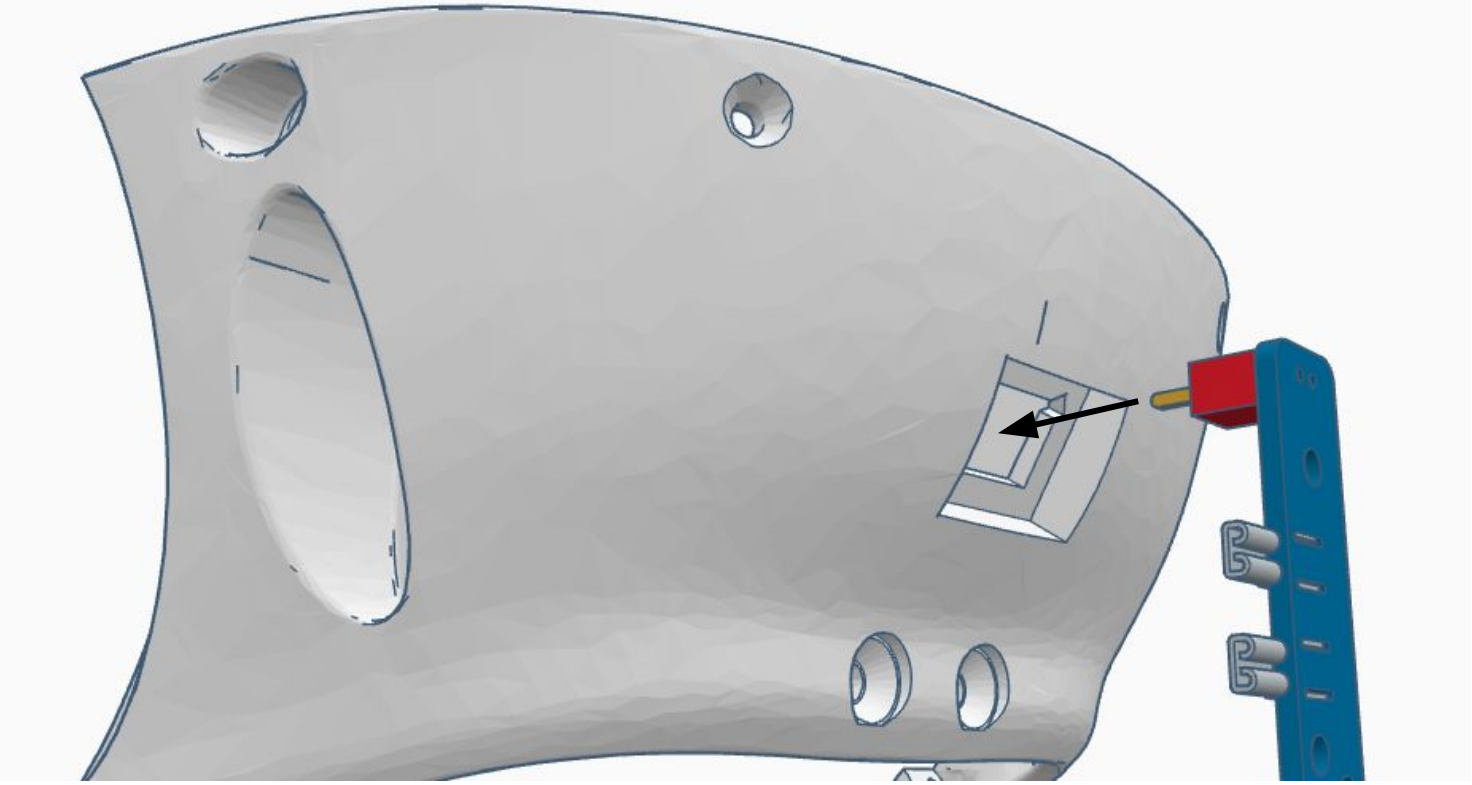
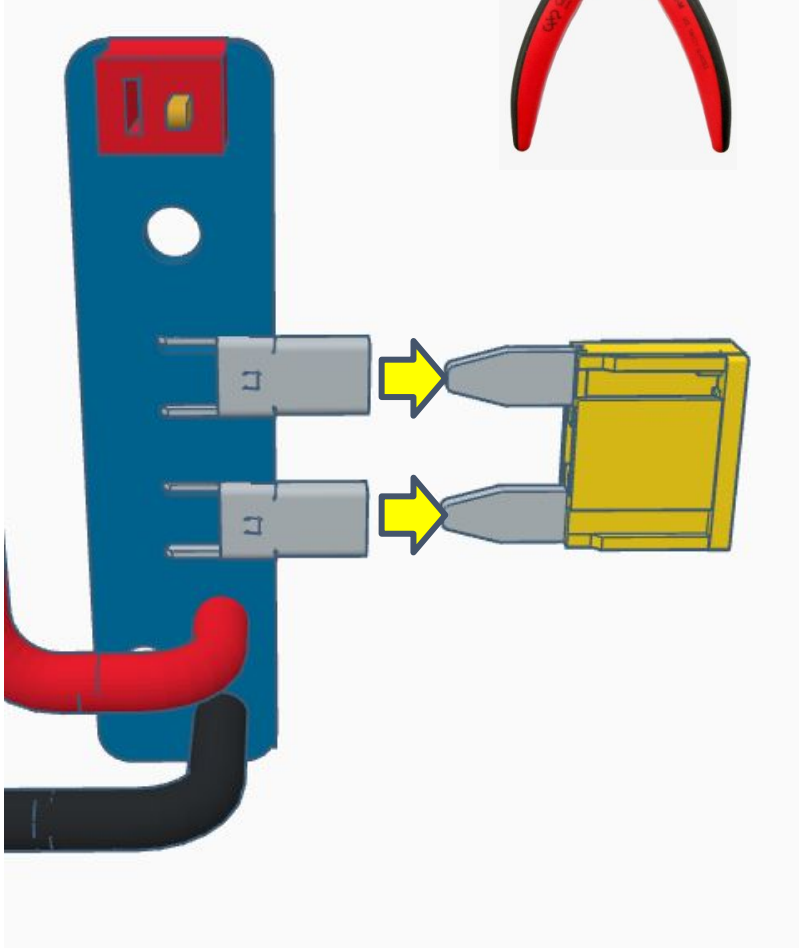


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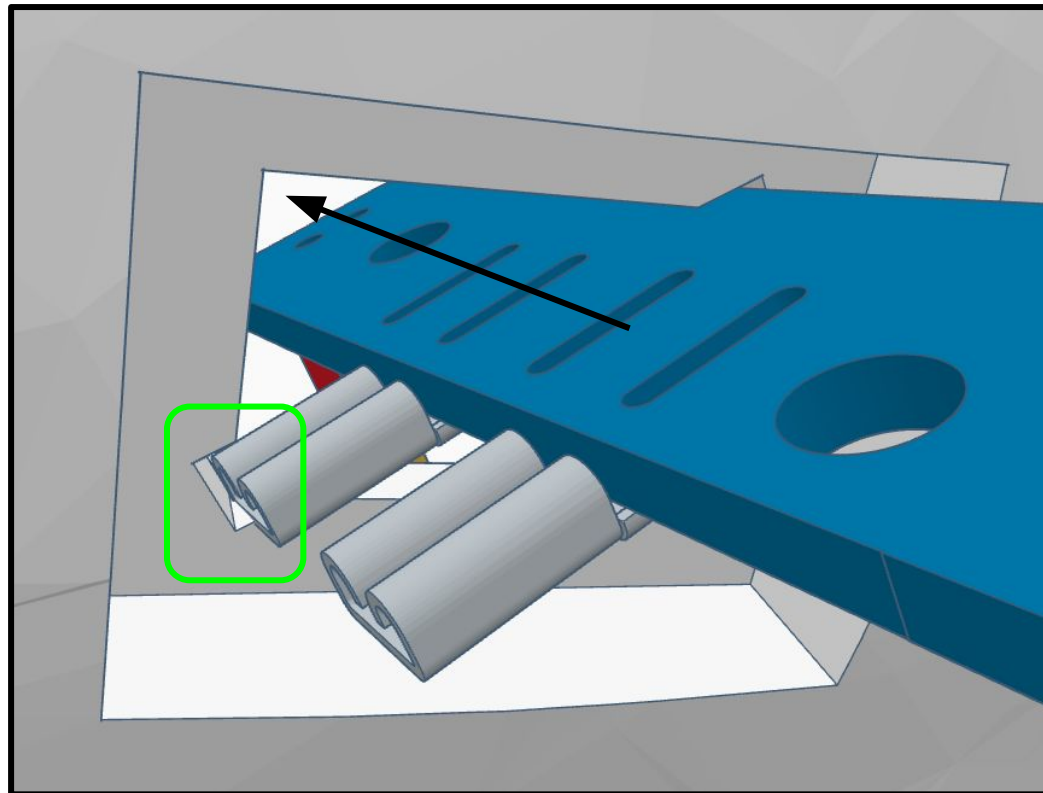
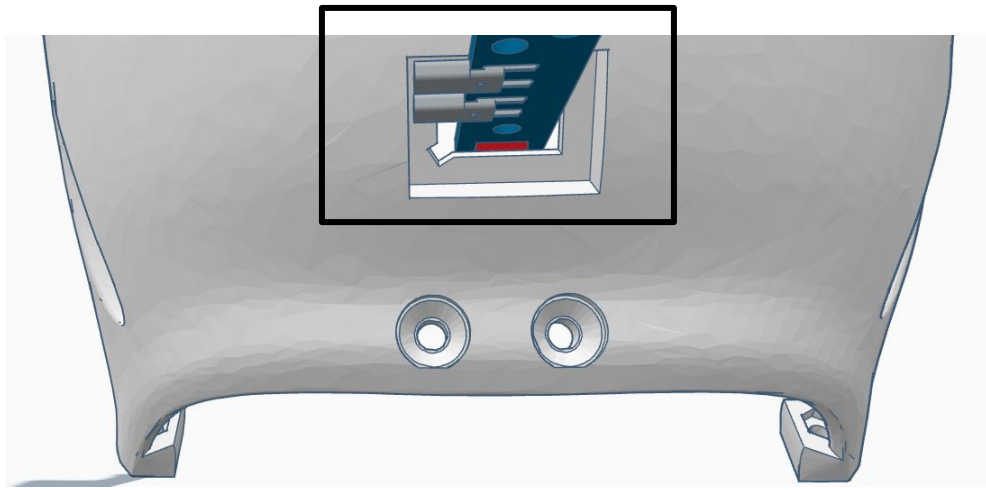


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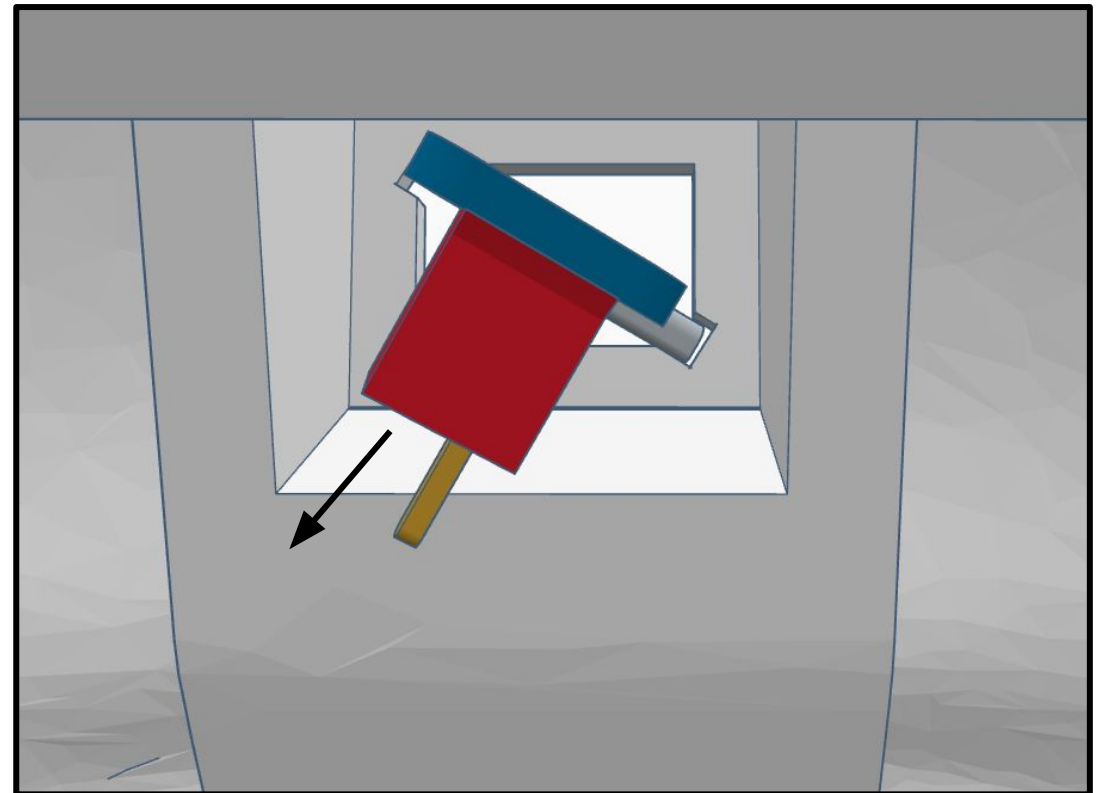
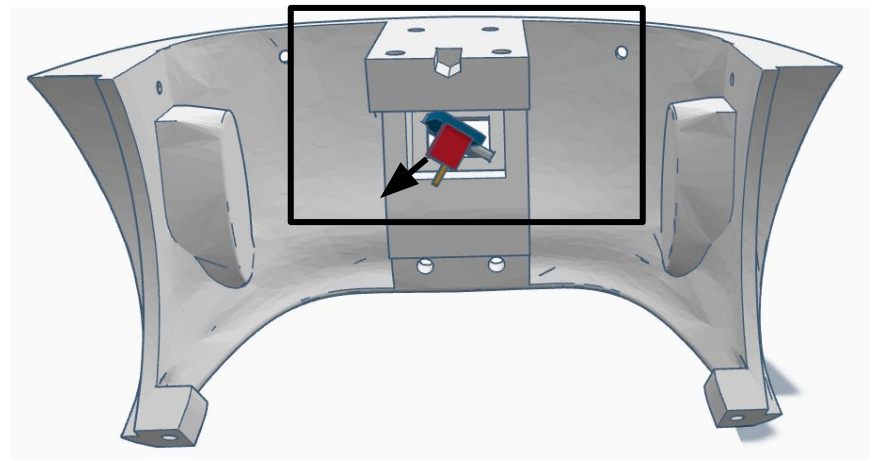


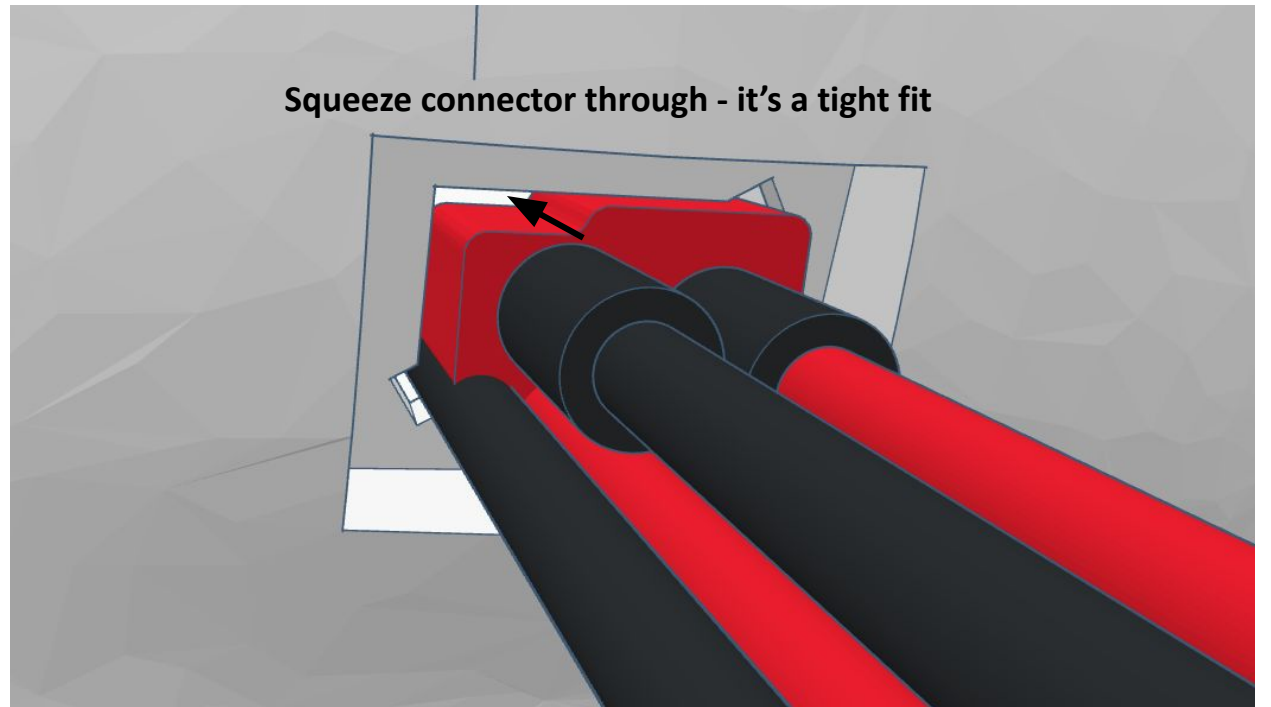
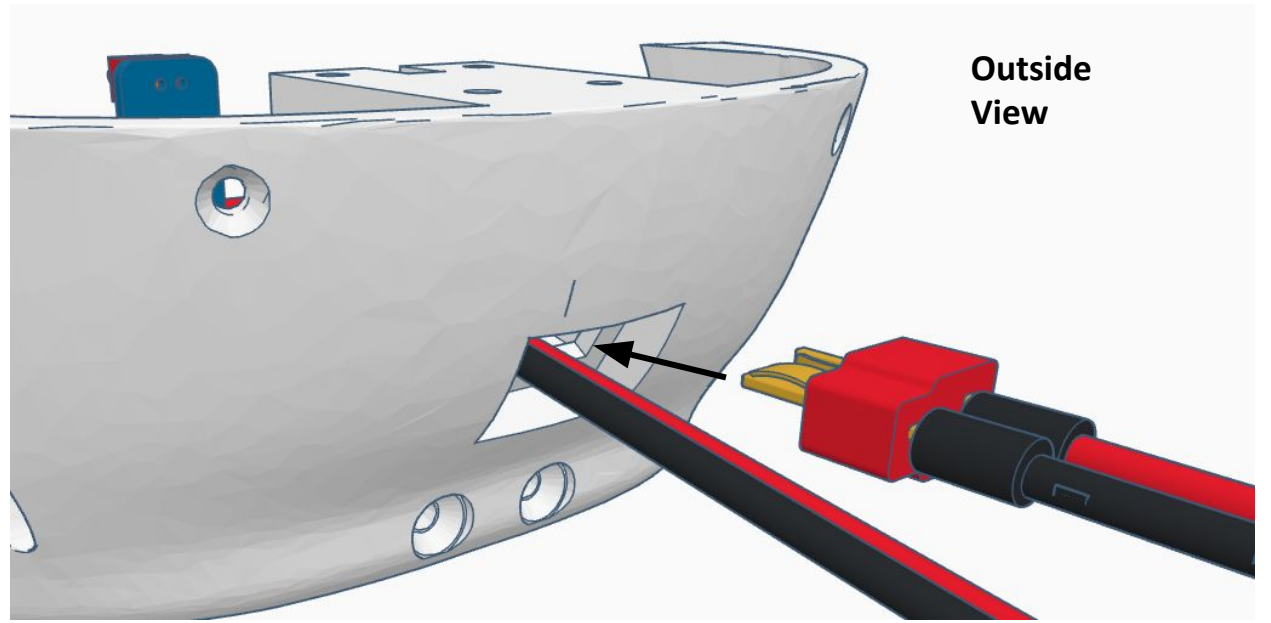
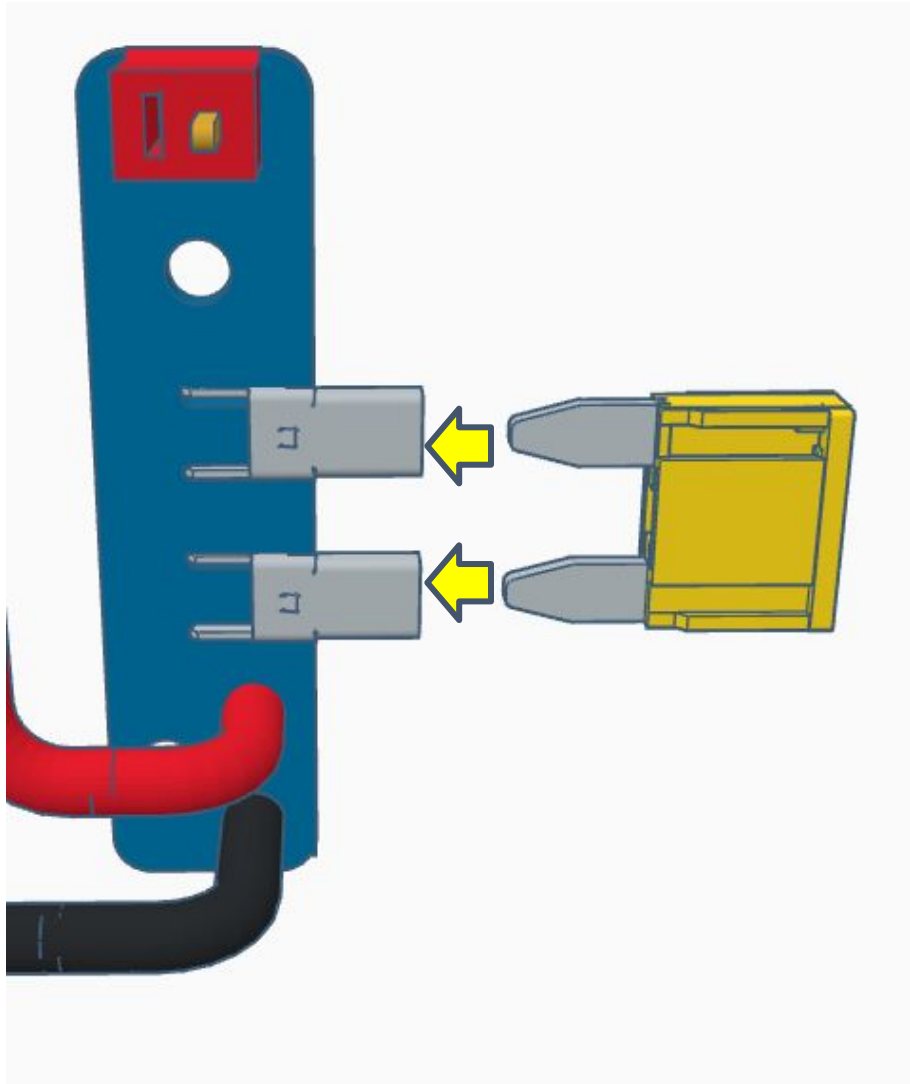


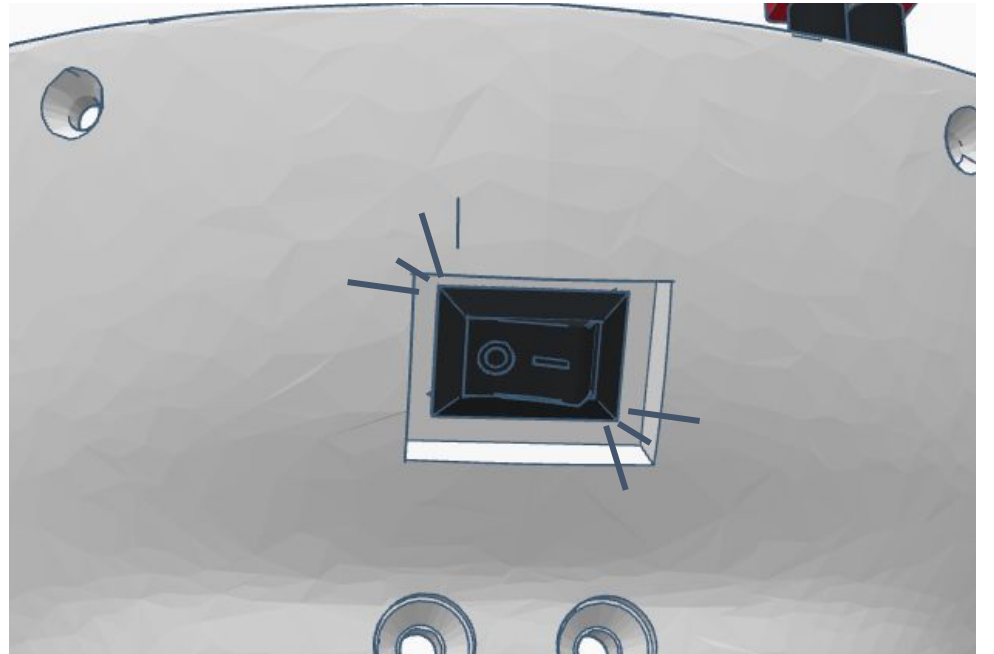
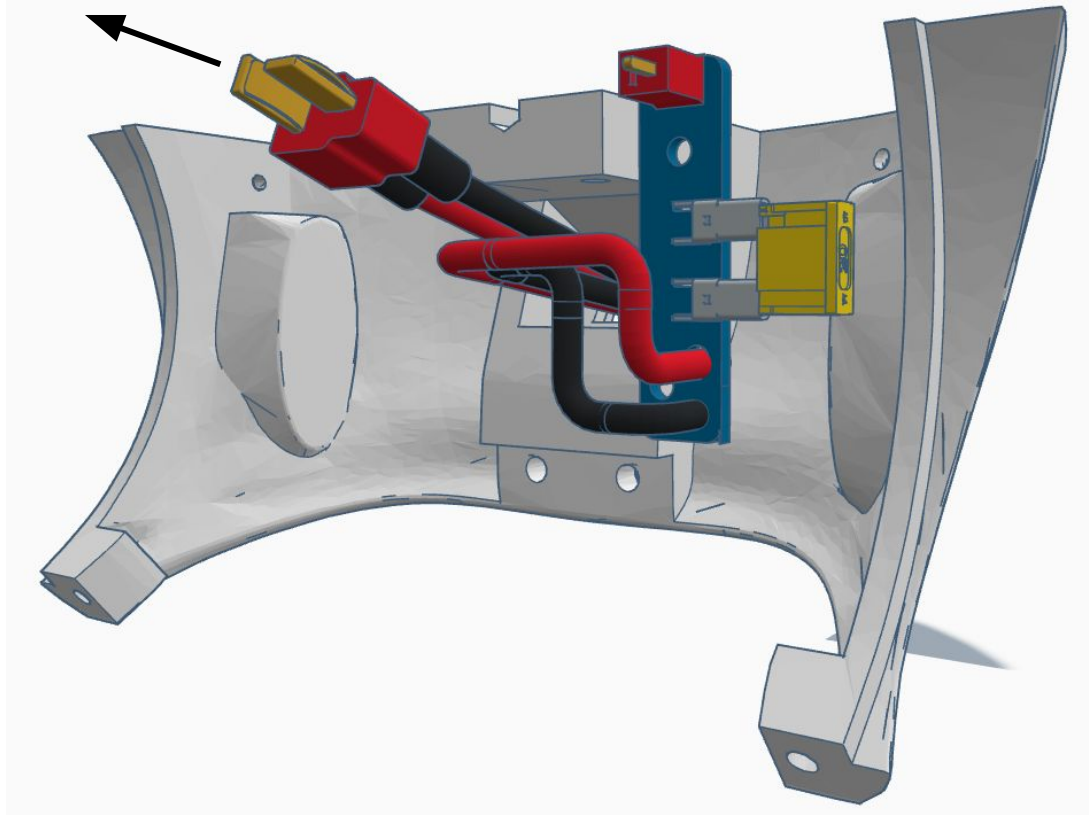
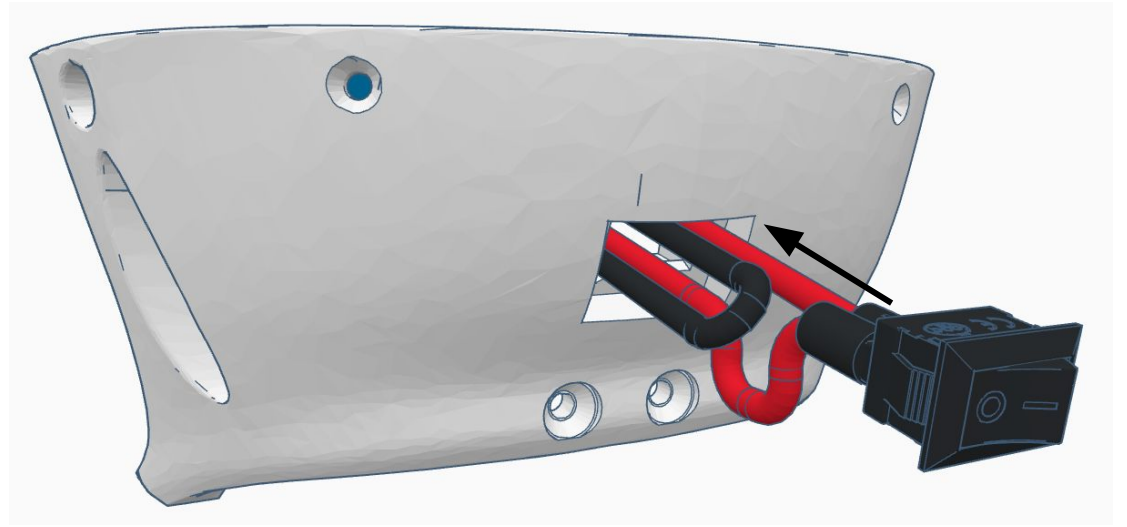
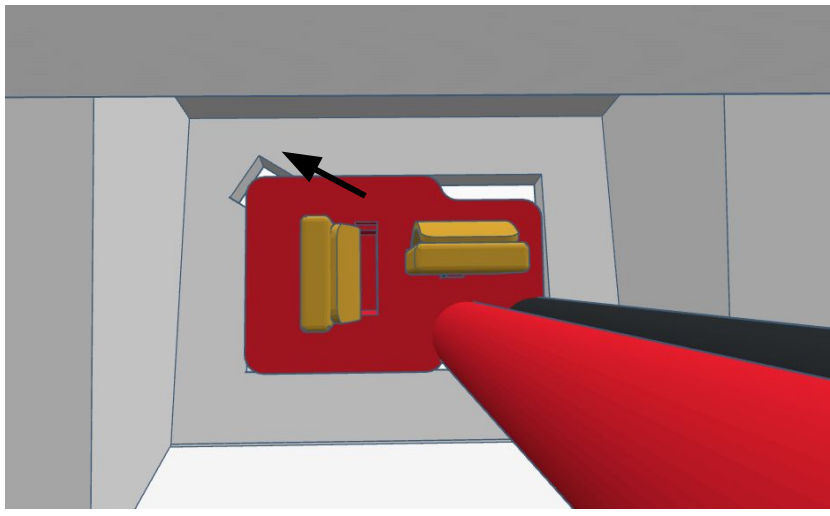
Outside View



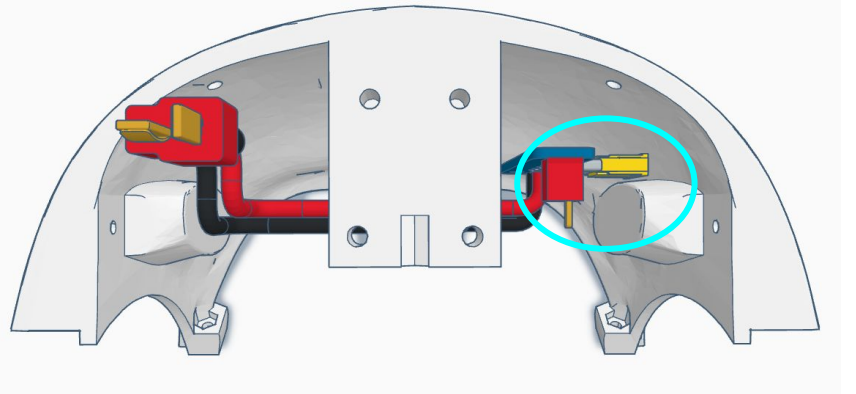
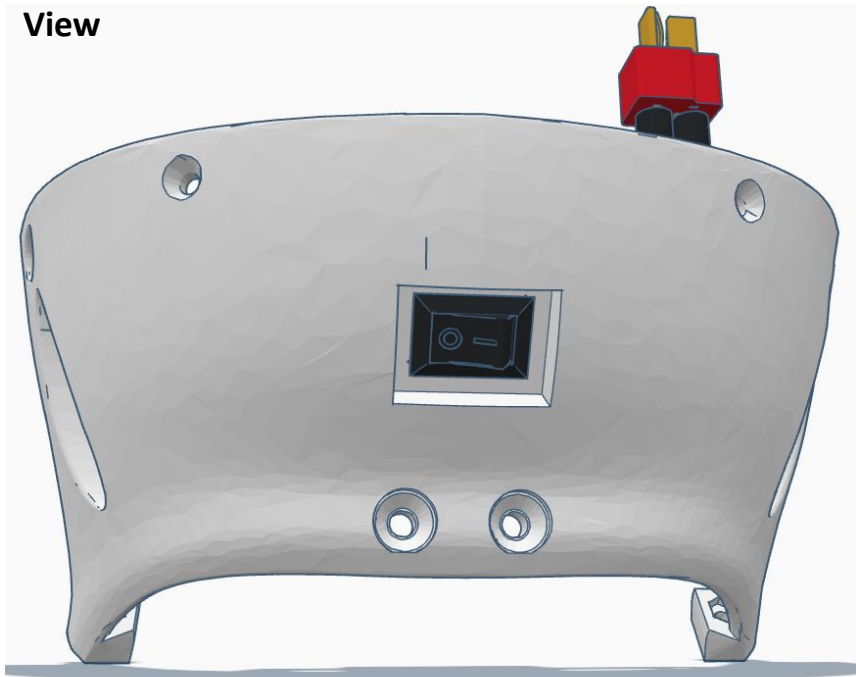
Inside View



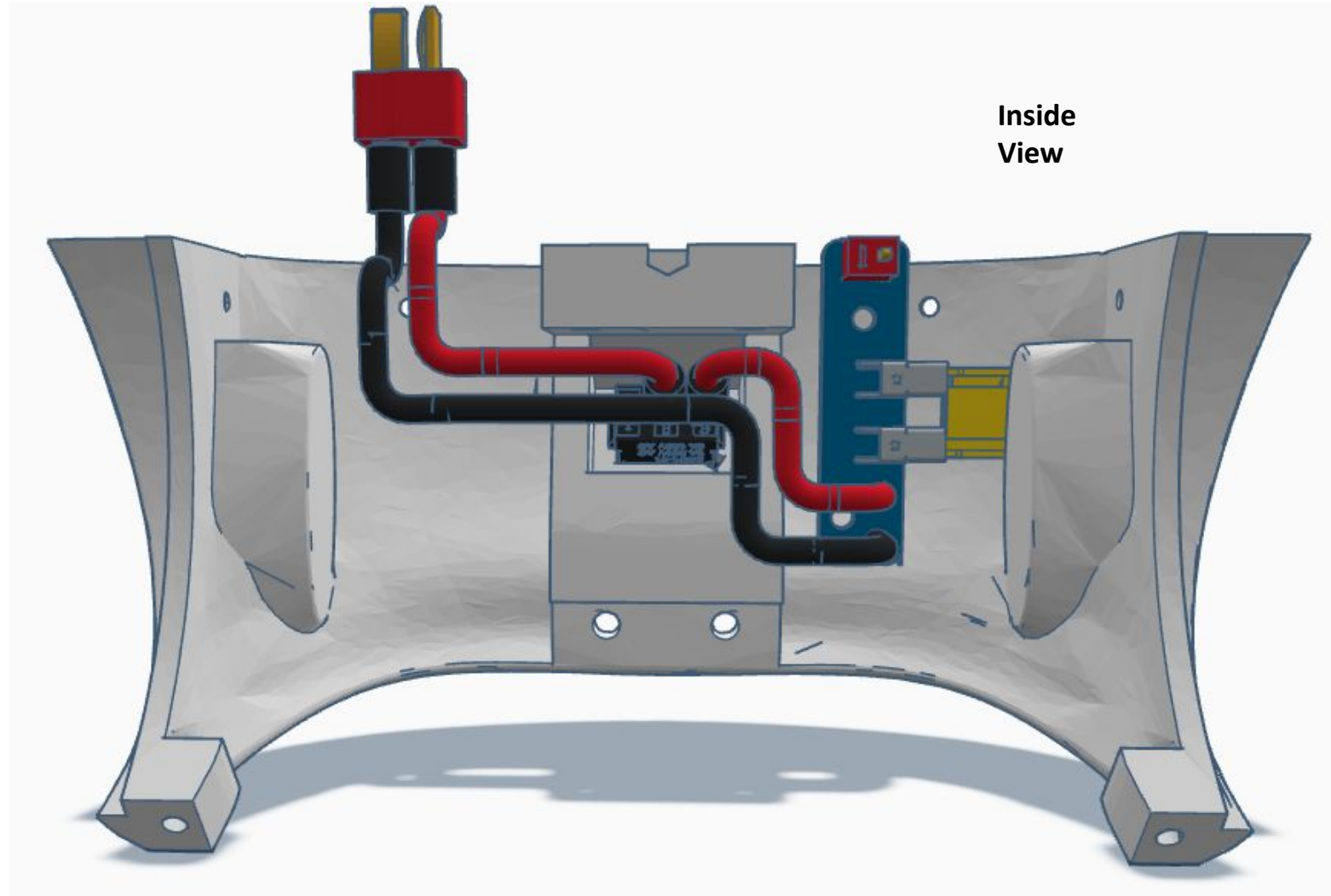


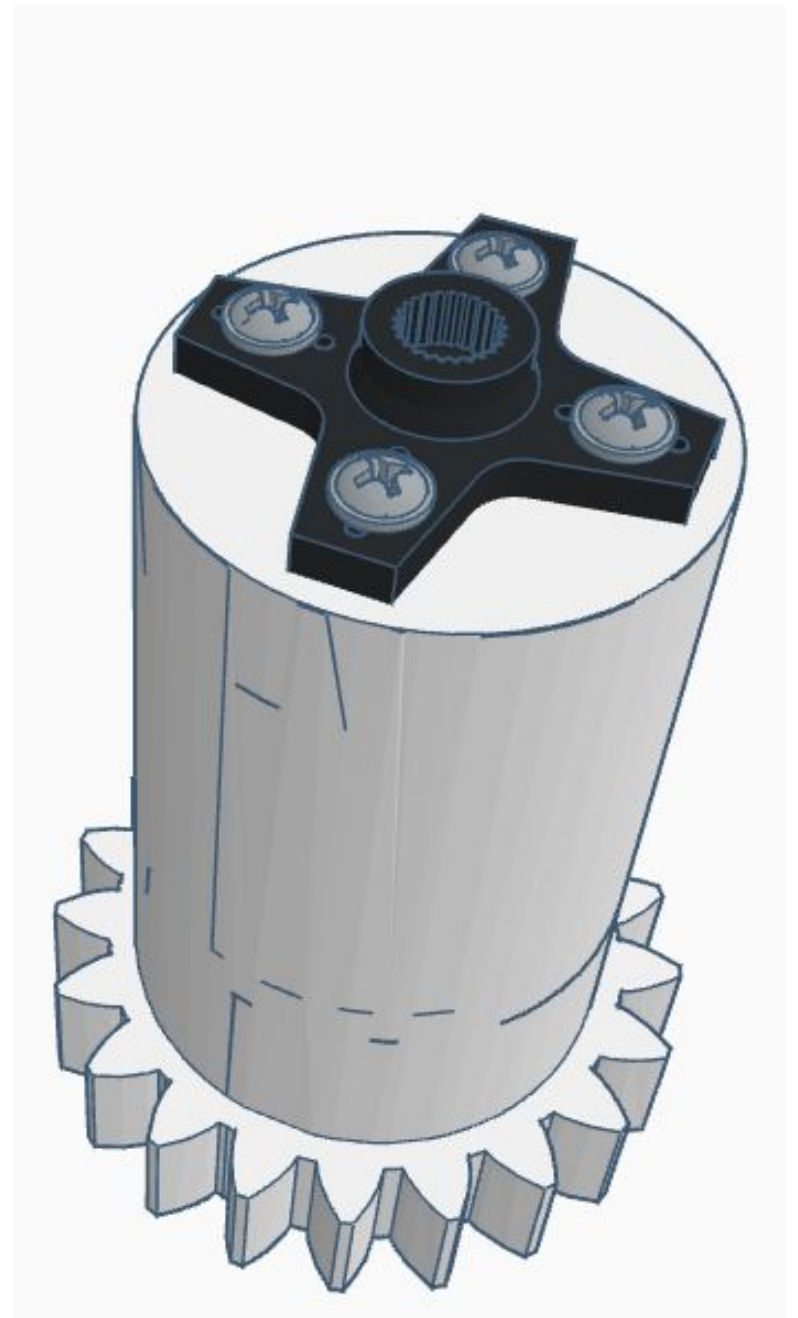
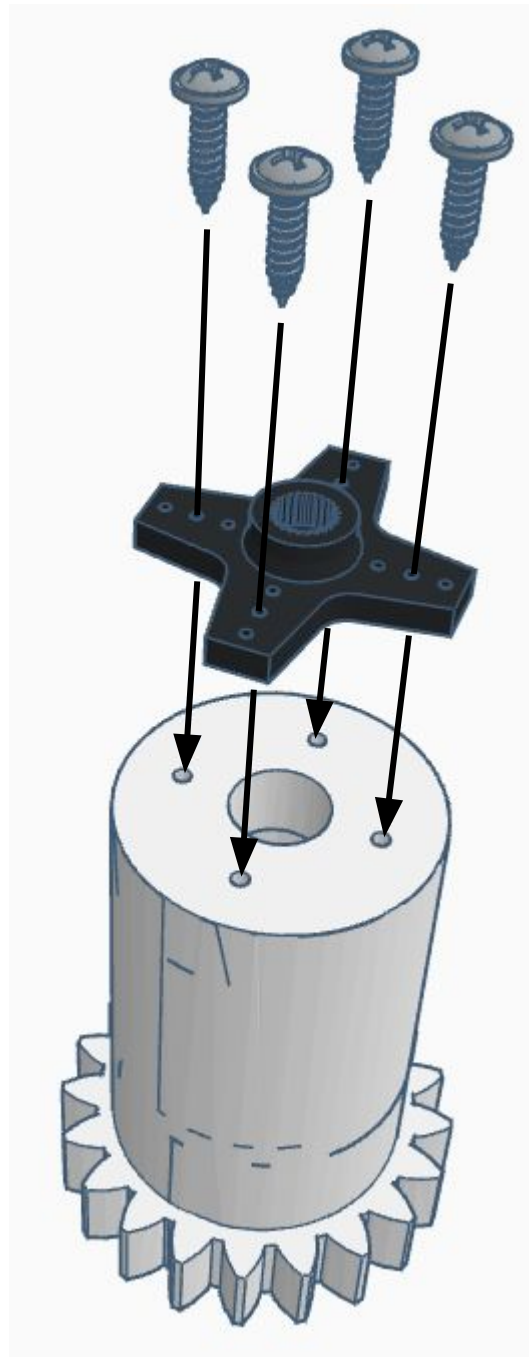
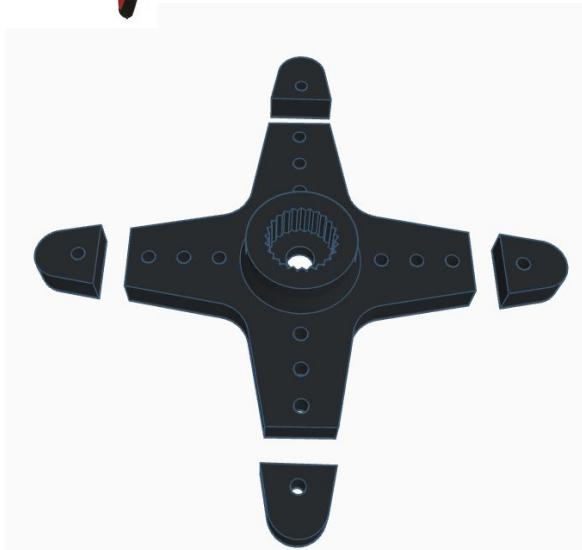
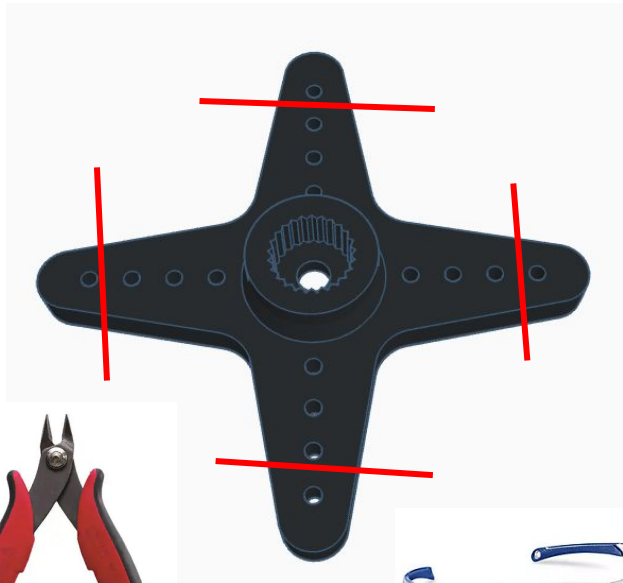
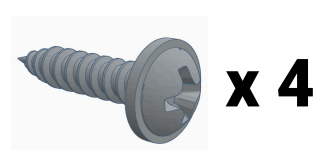


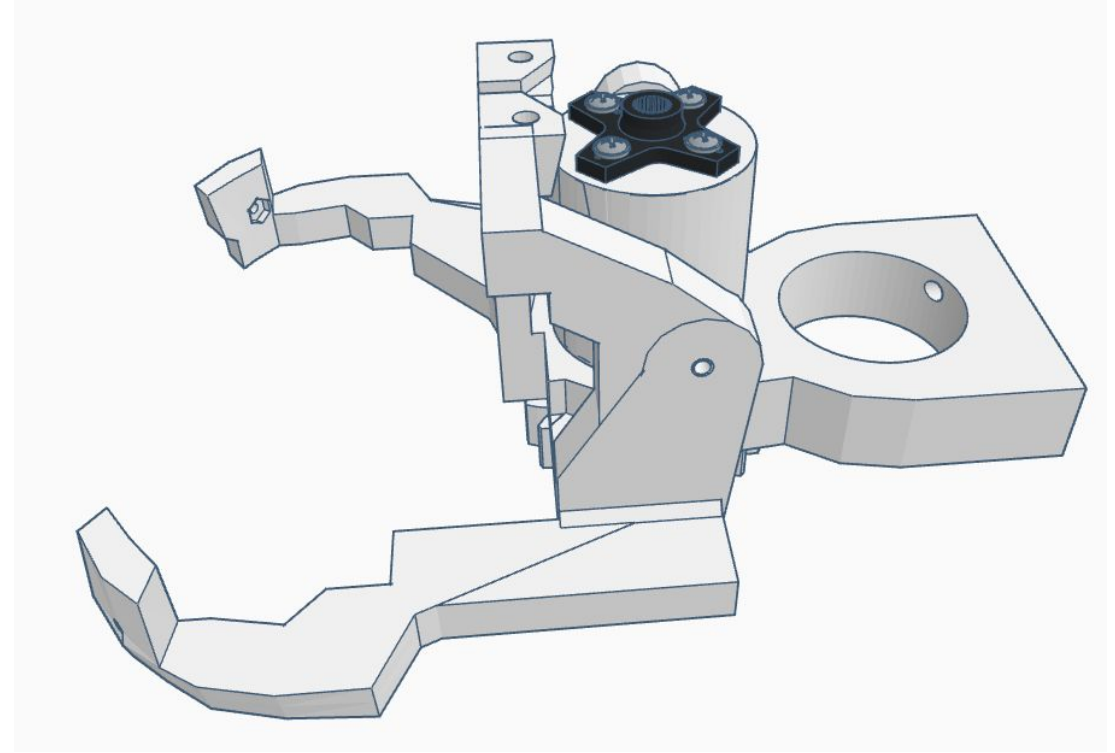
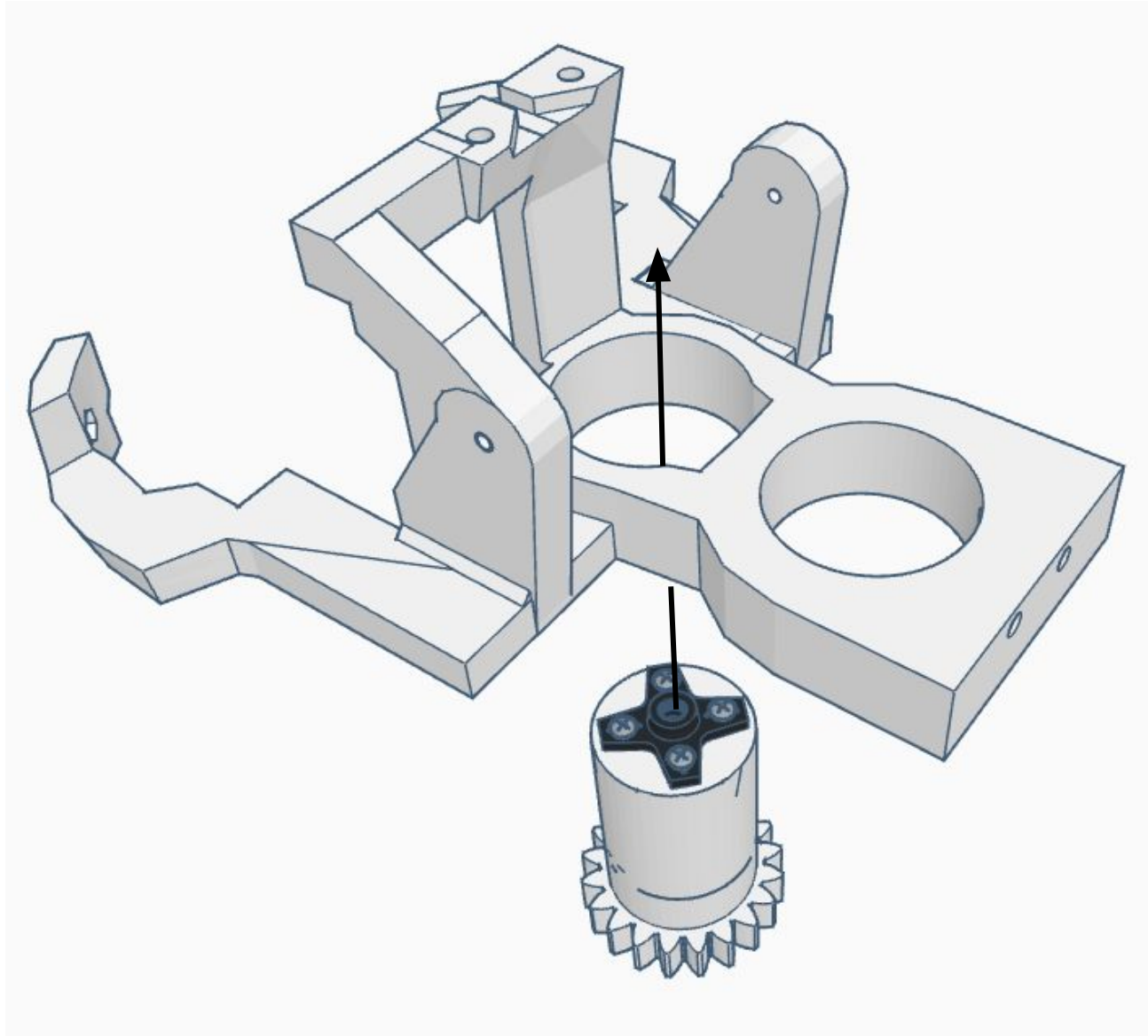
**Outside
View**

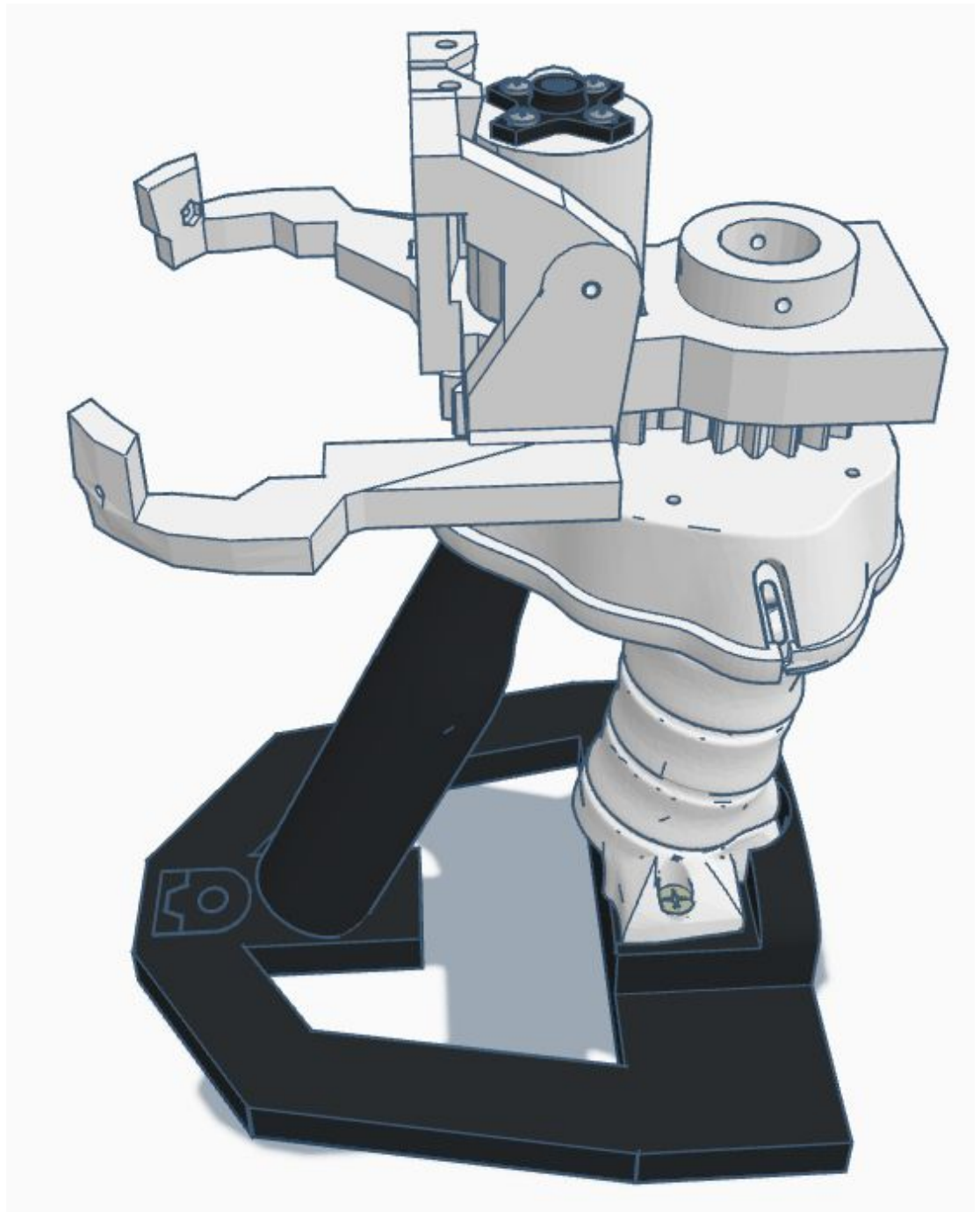
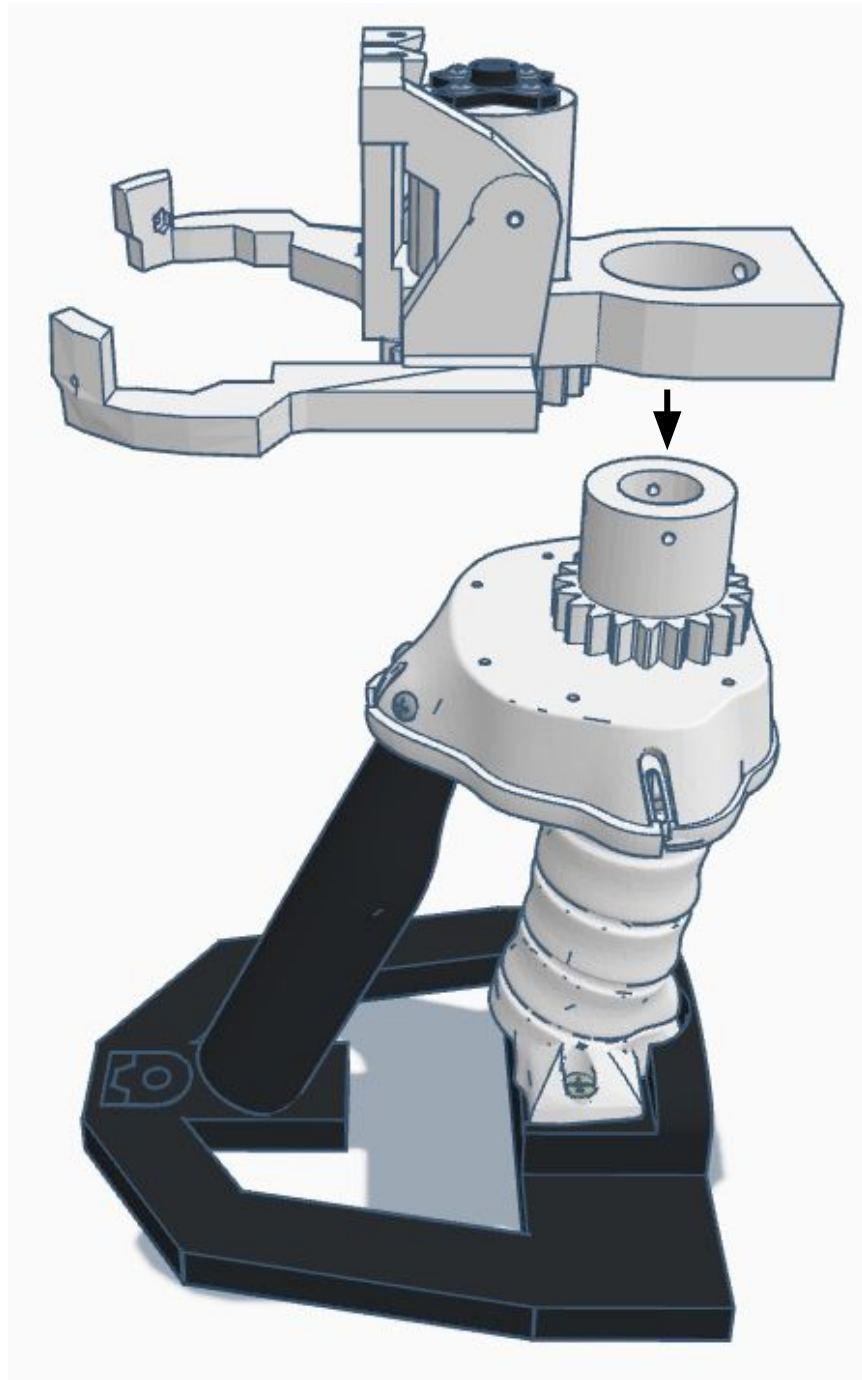


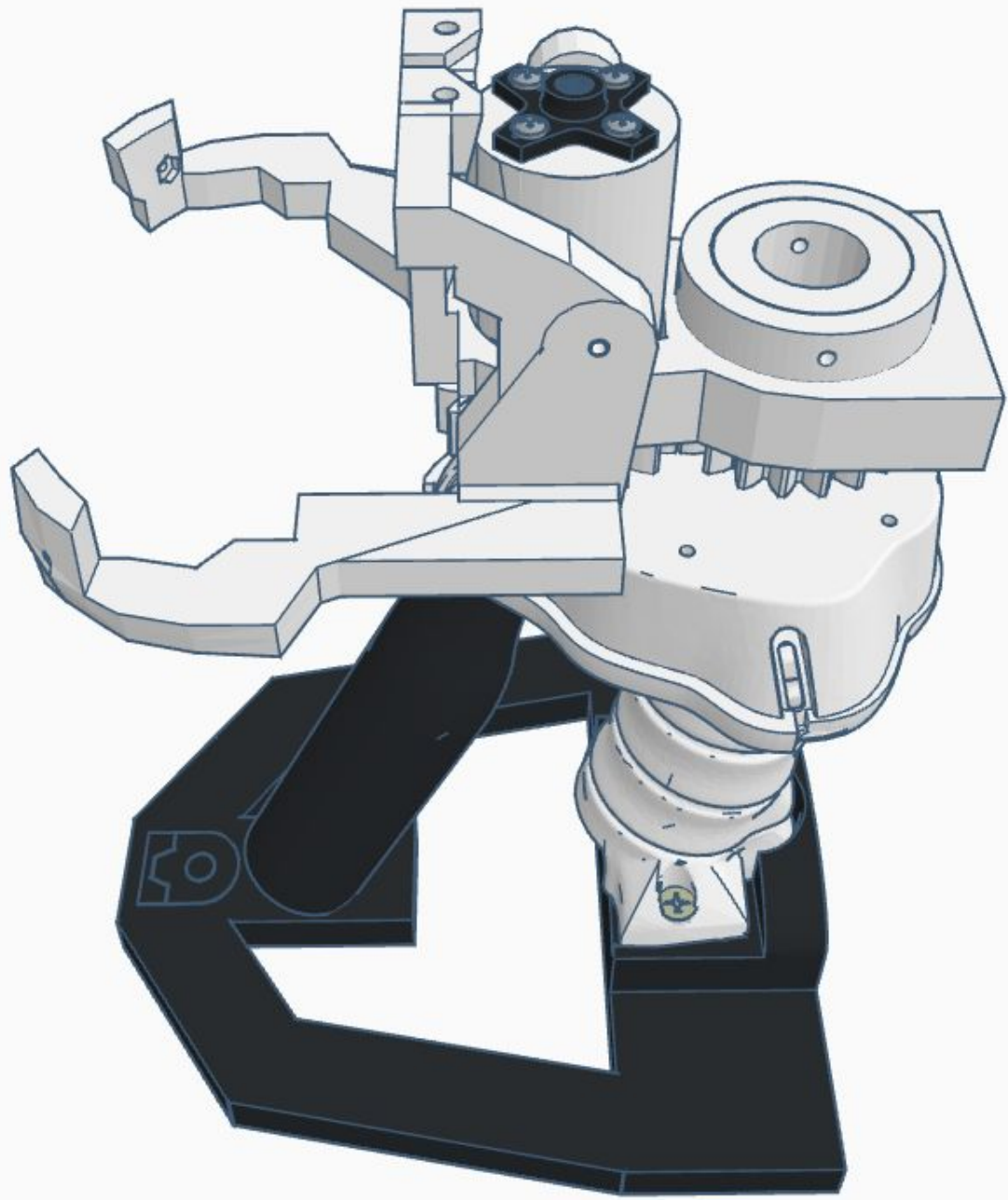
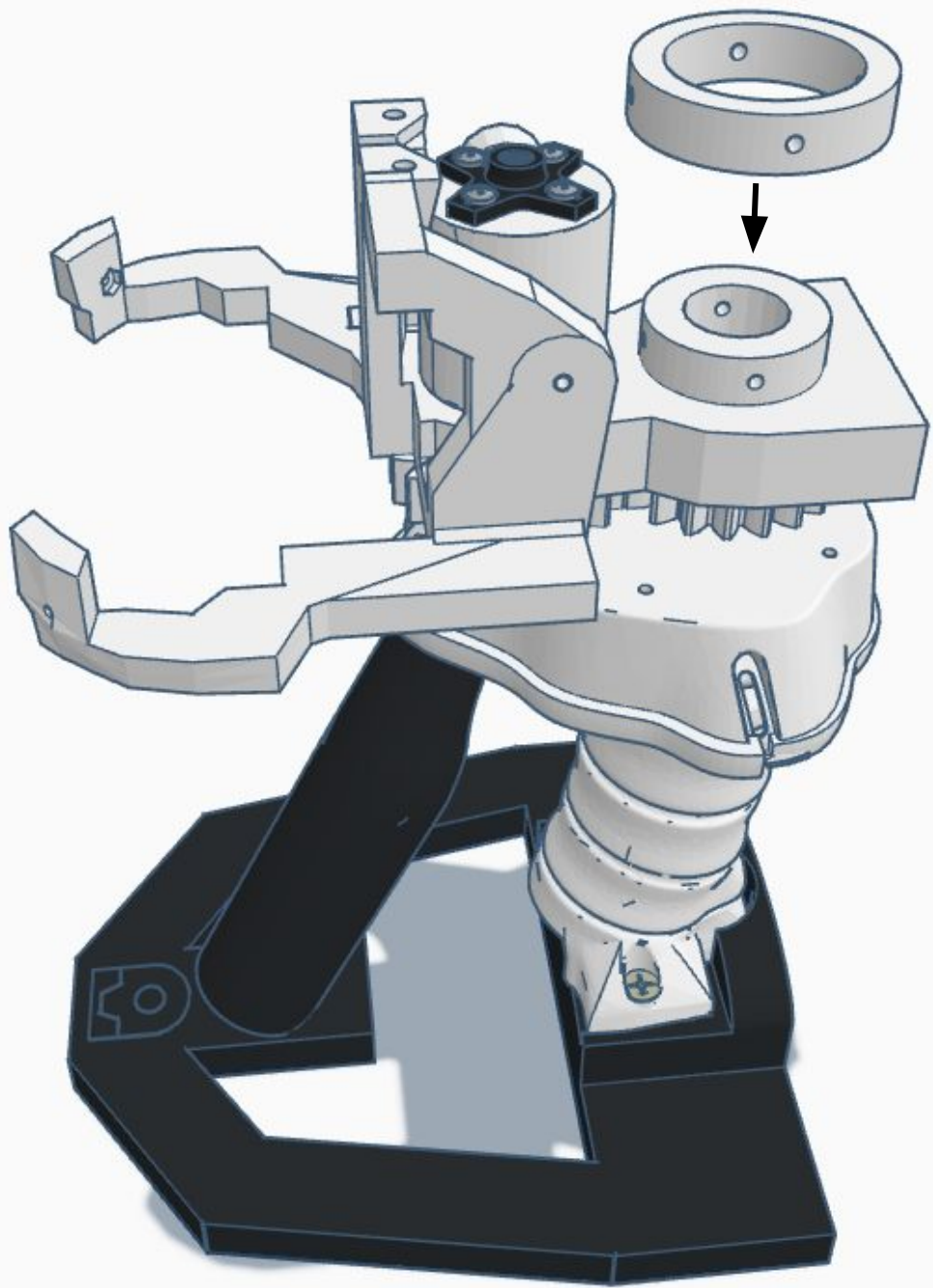
**Inside
View**




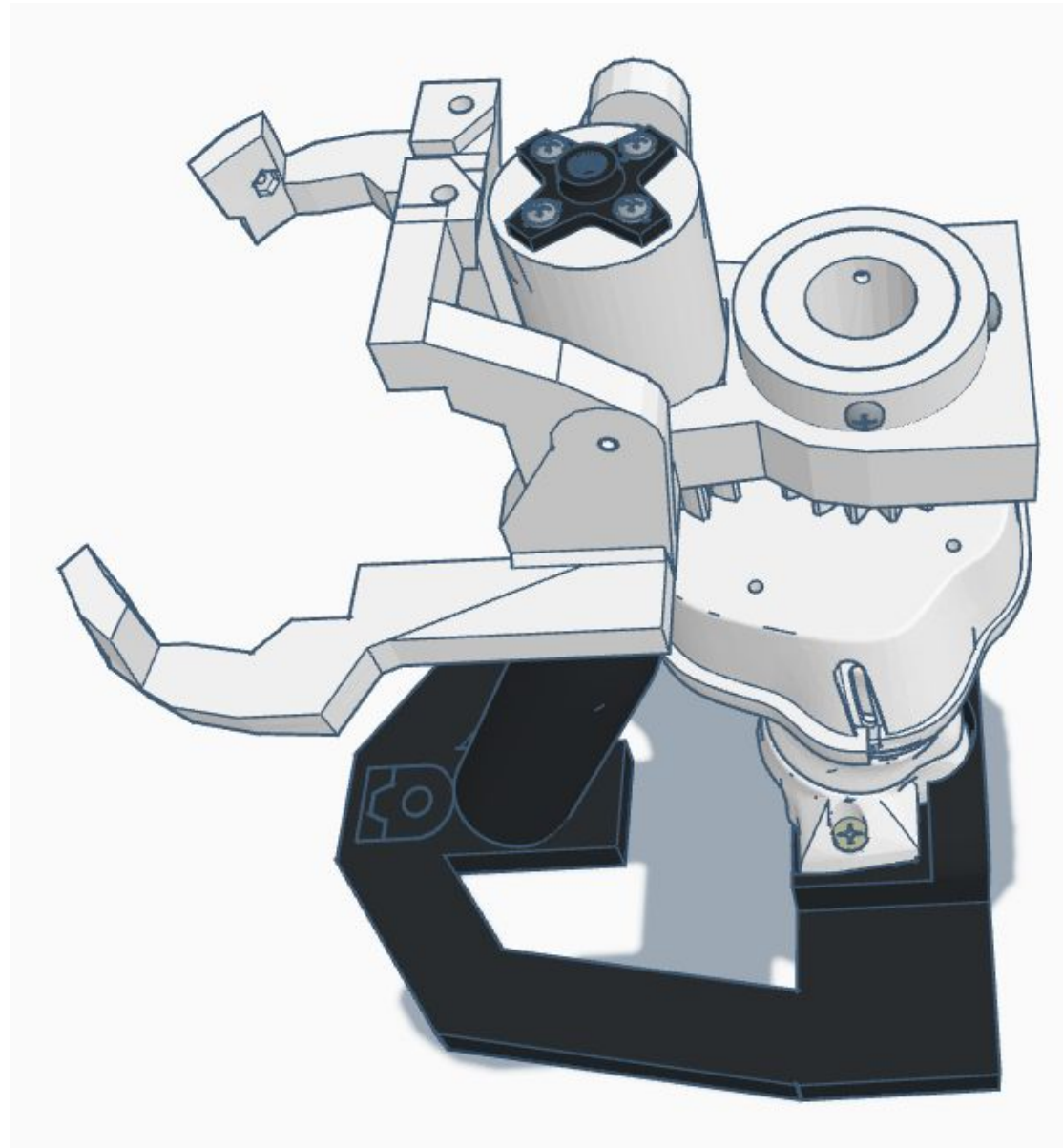
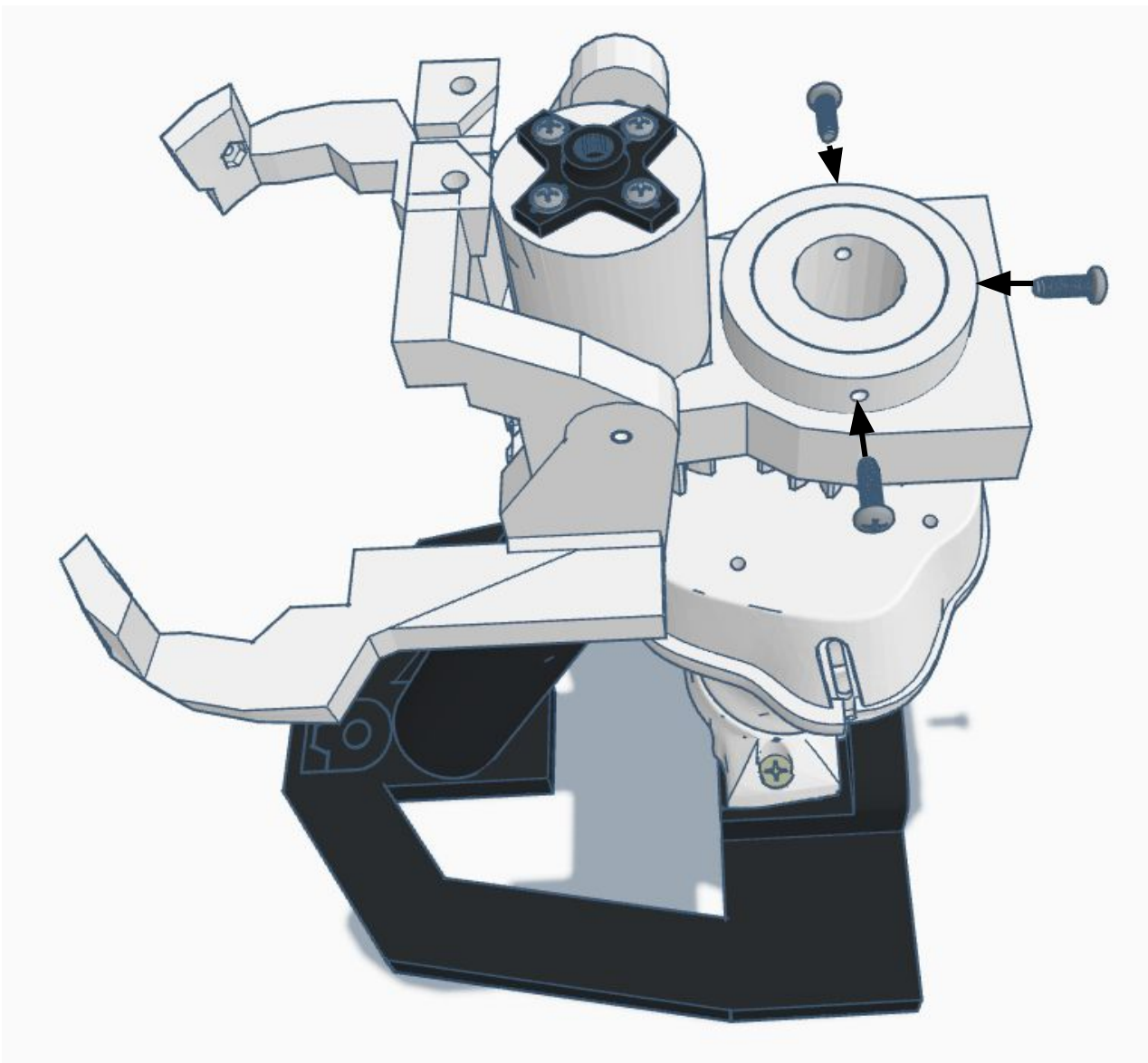




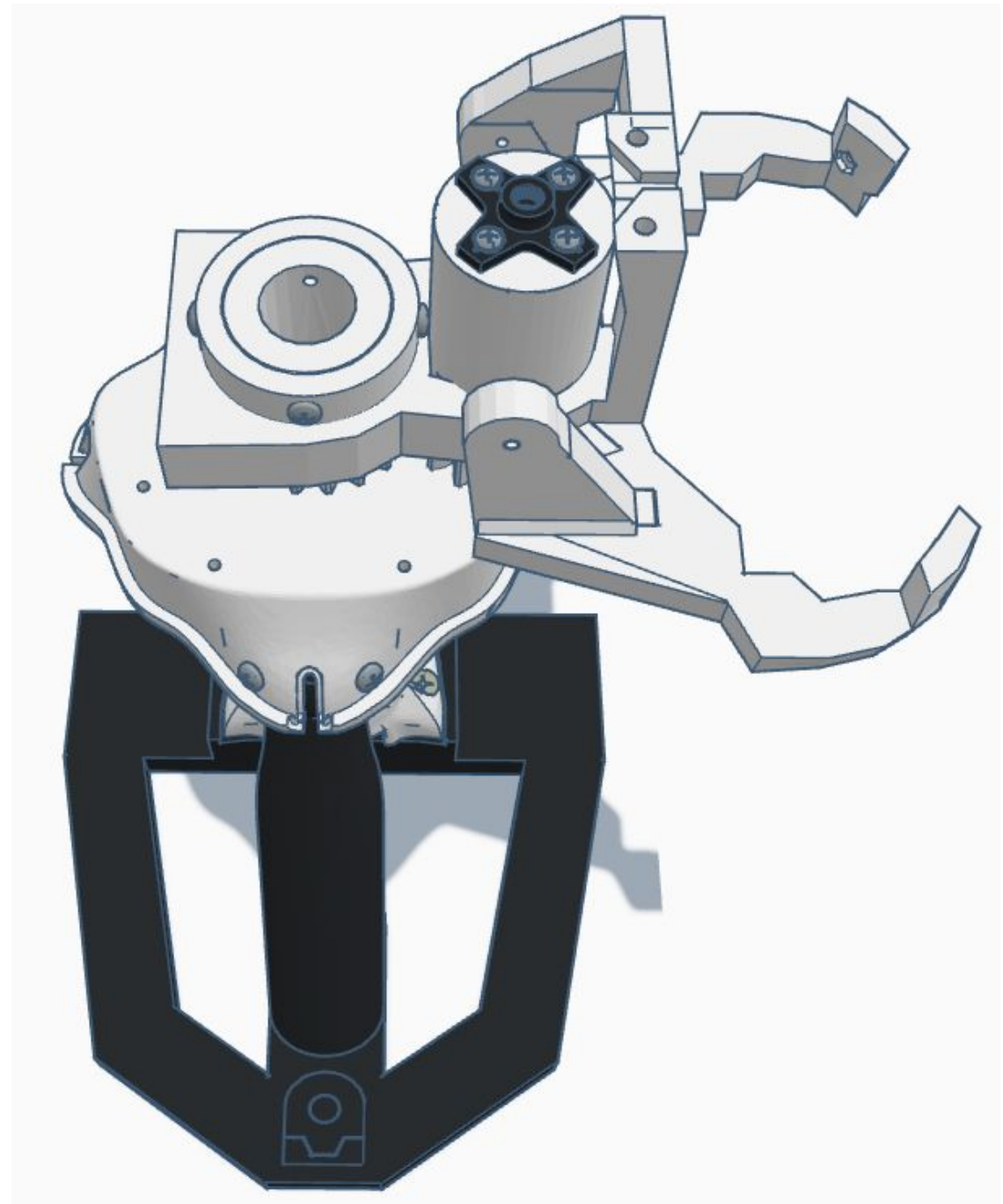
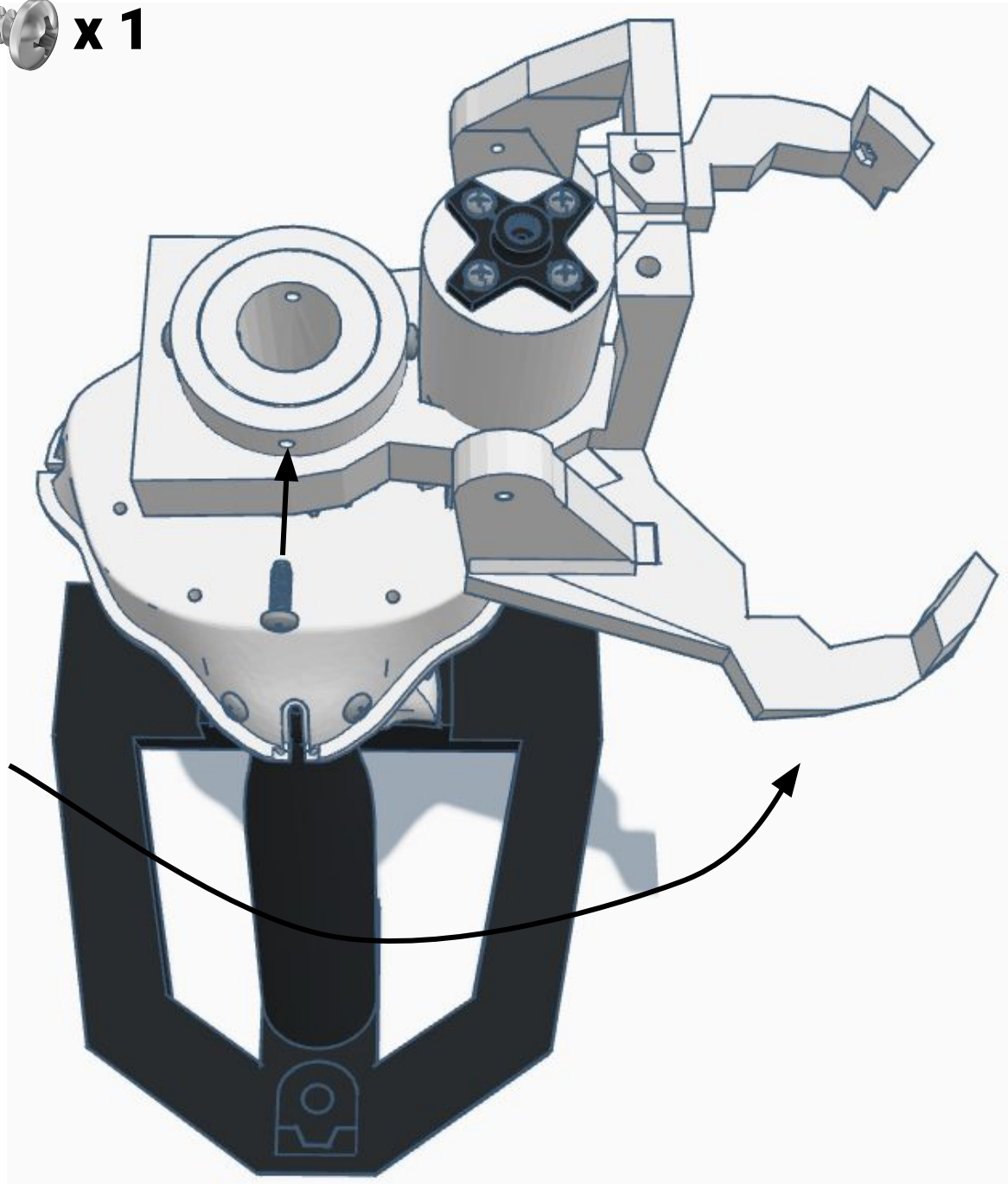




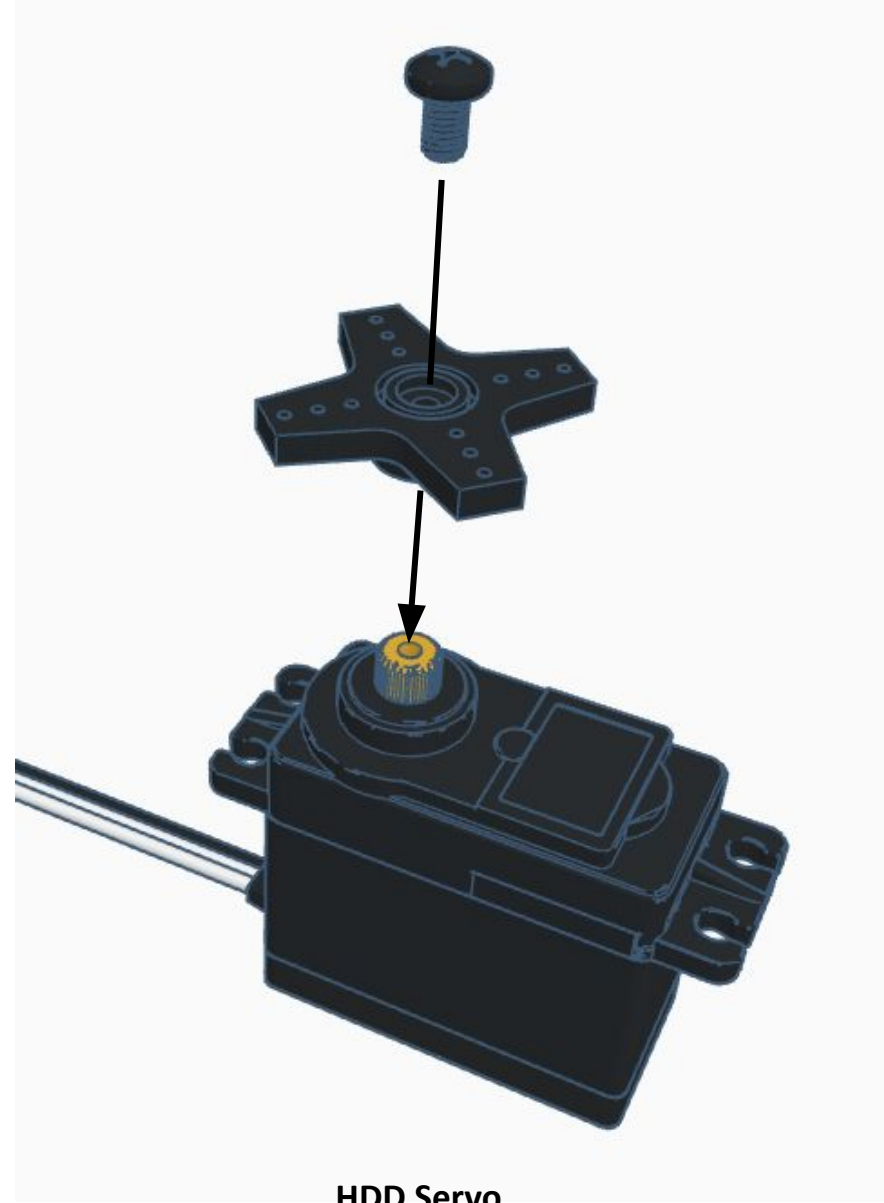
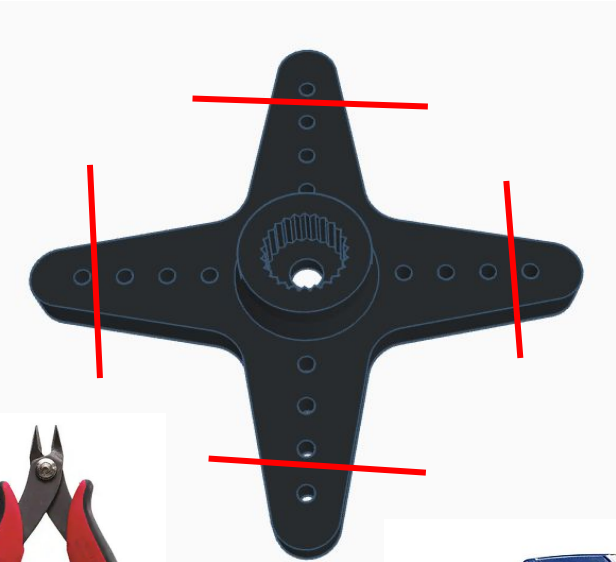
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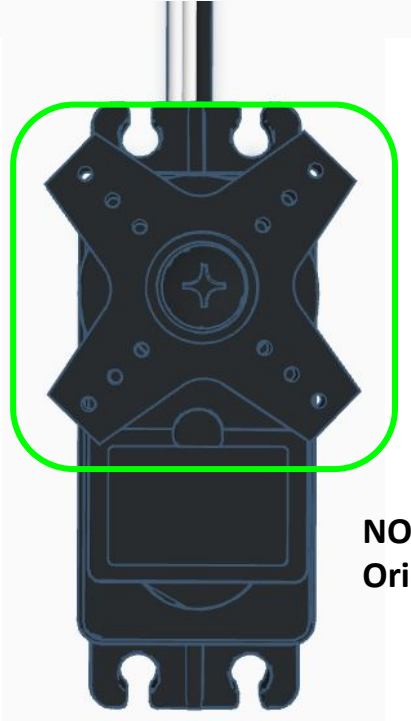
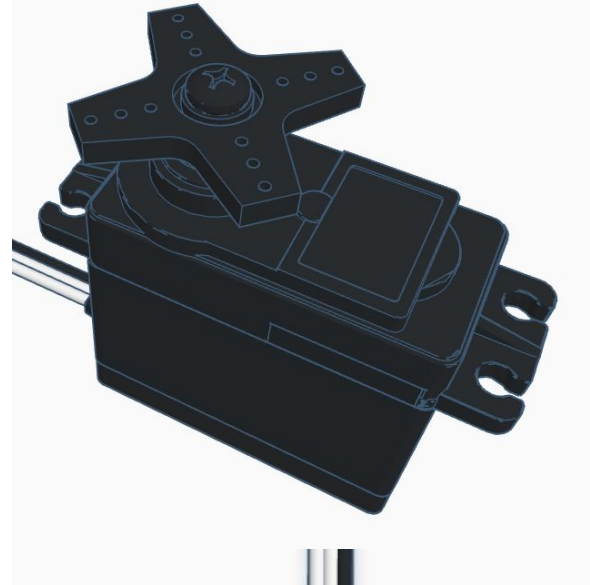
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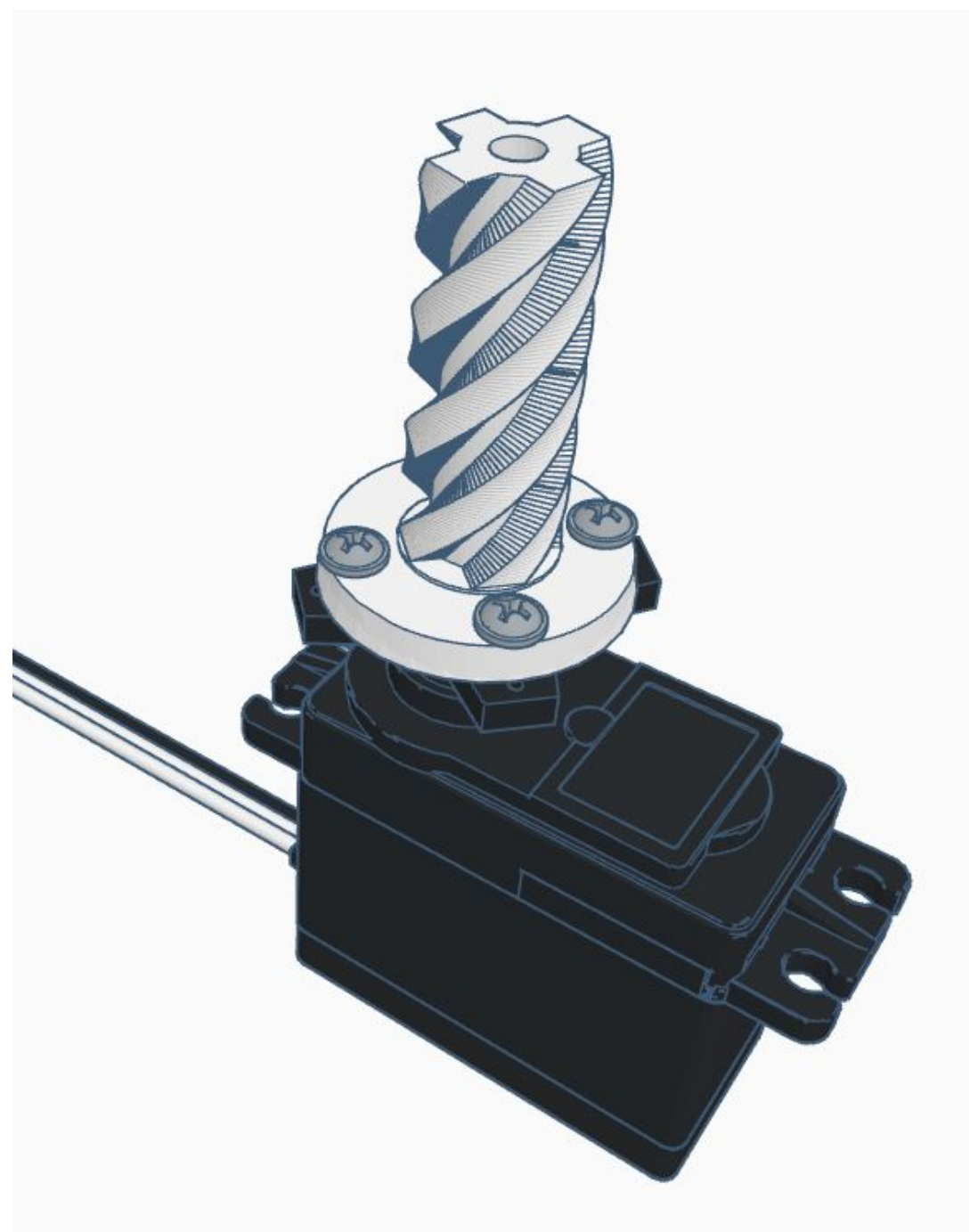
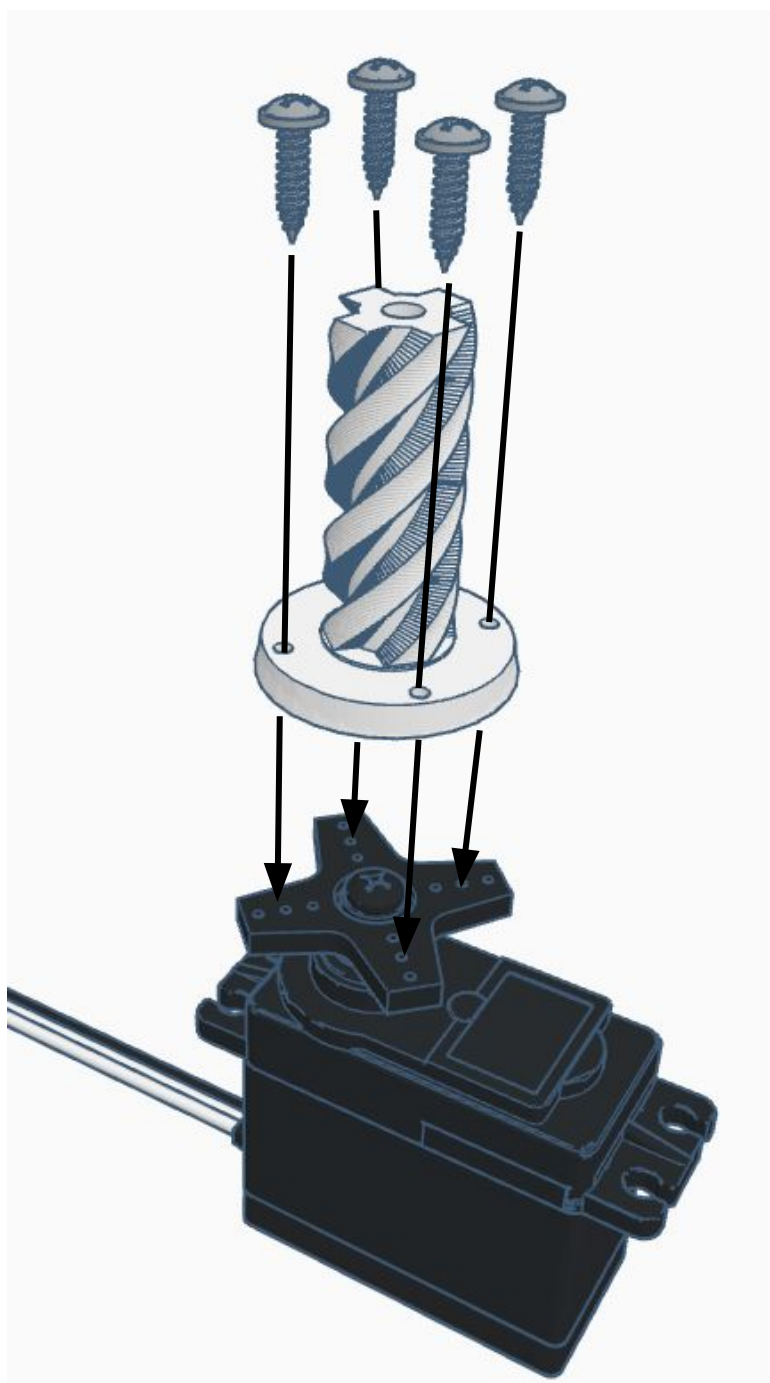
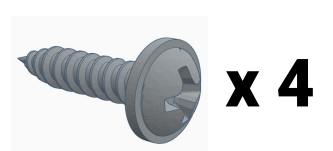
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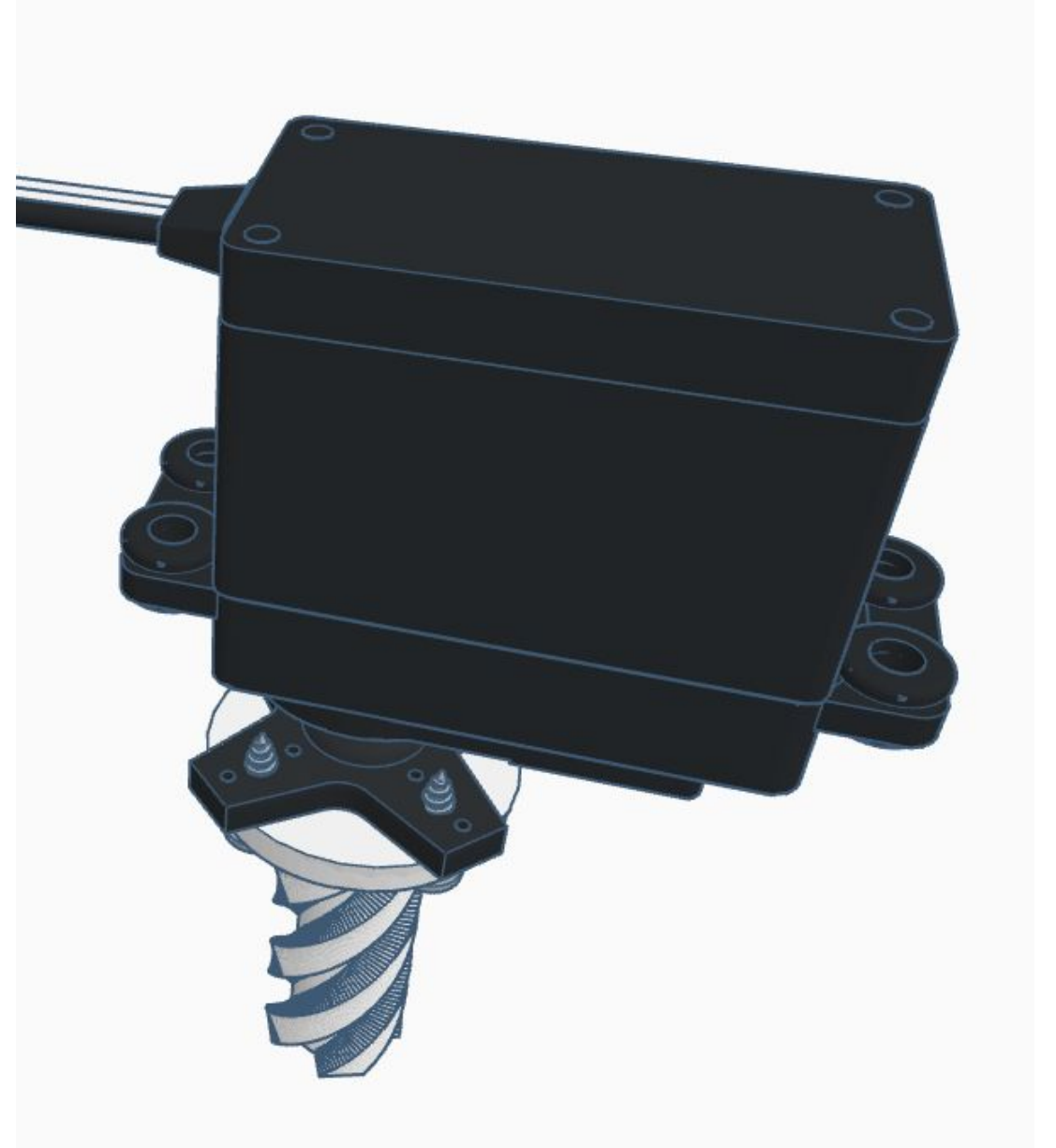
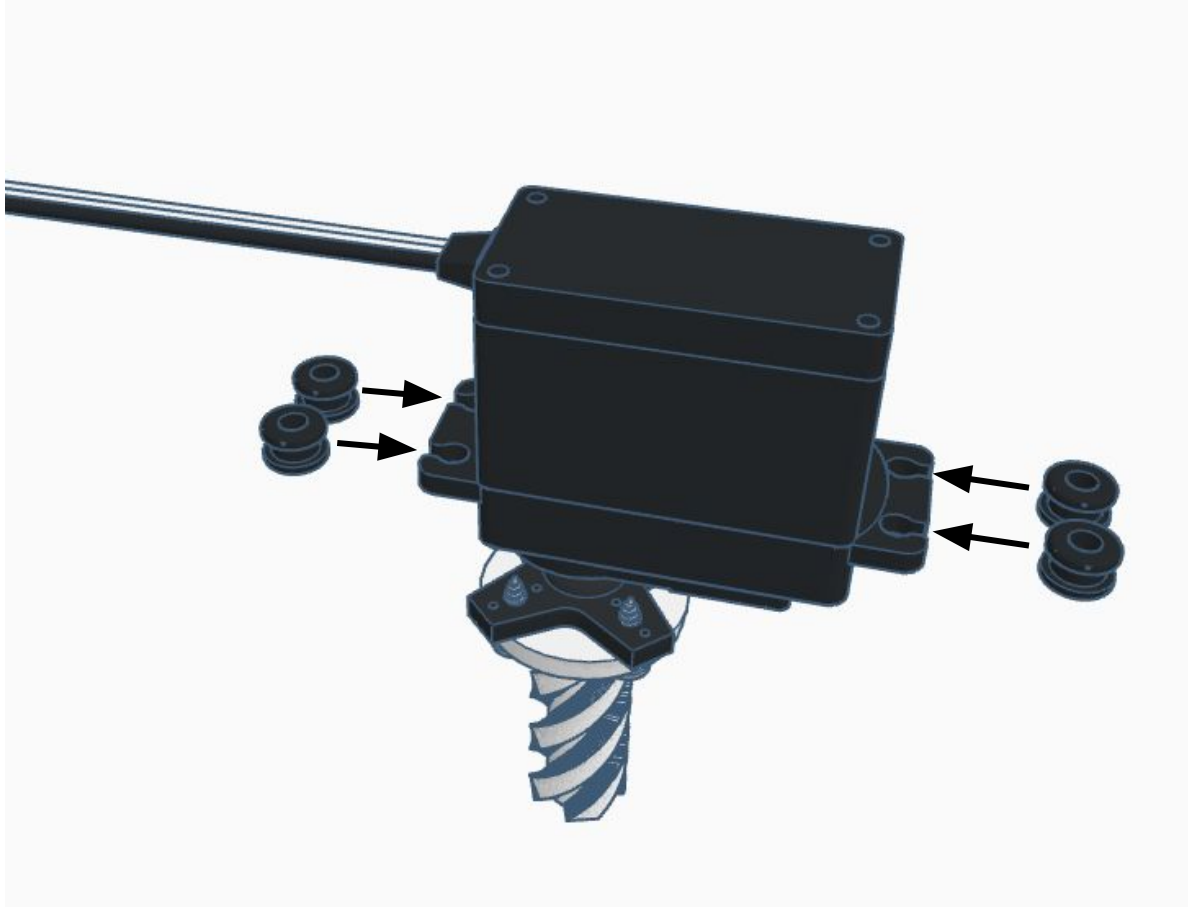



HDD Servo

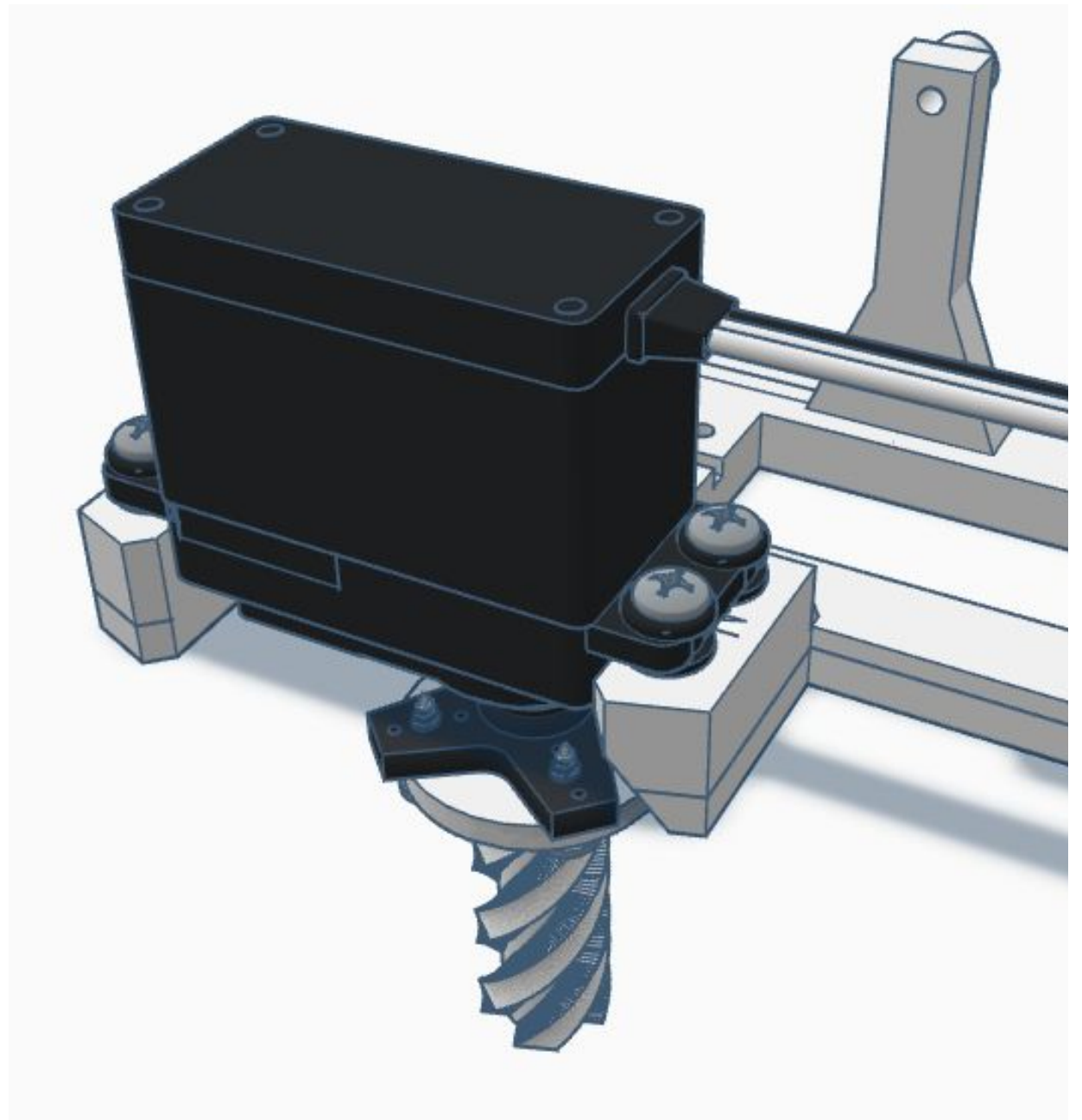
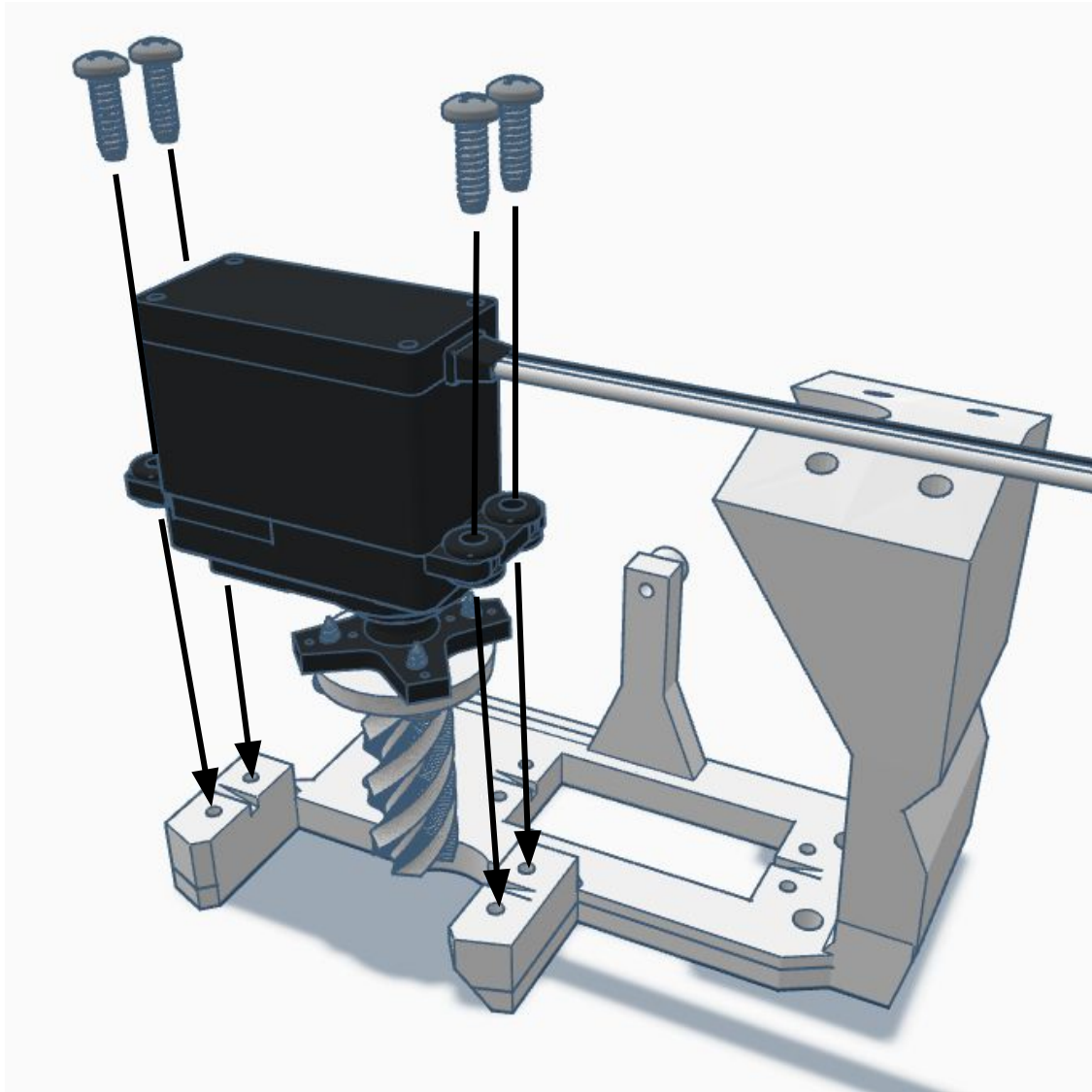


NOTE:
Orientation

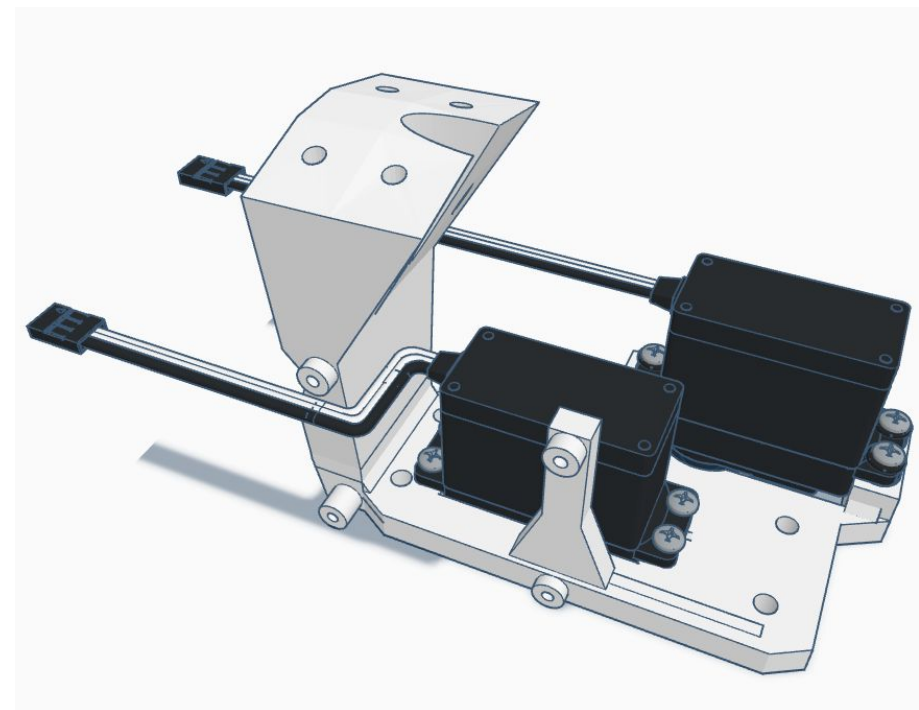
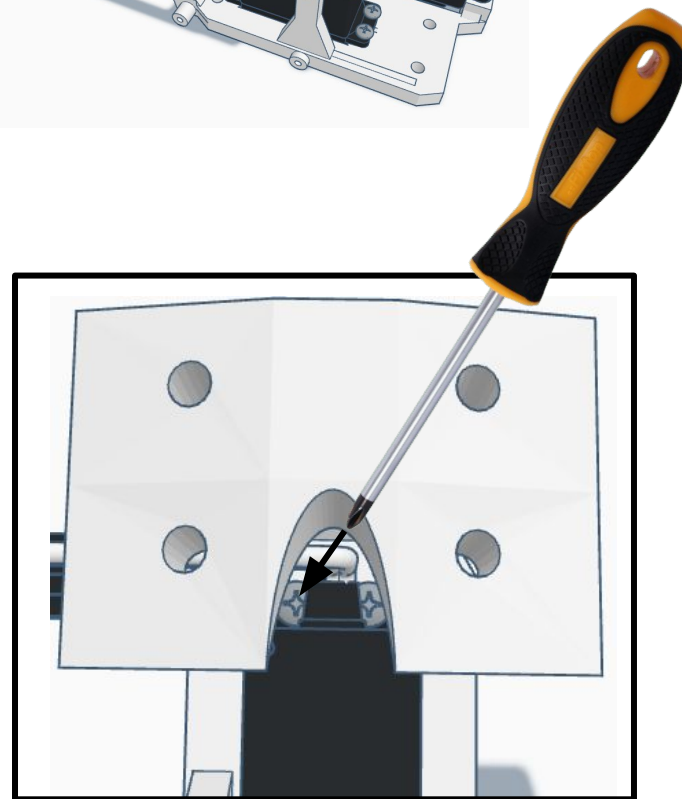
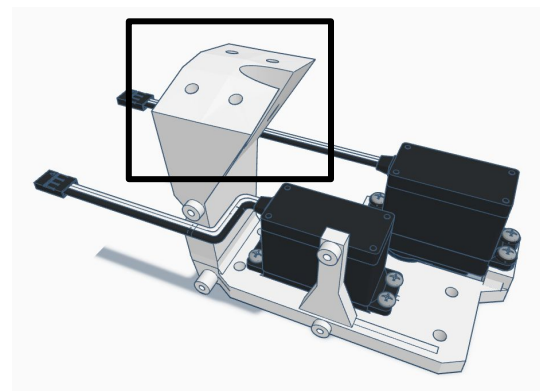
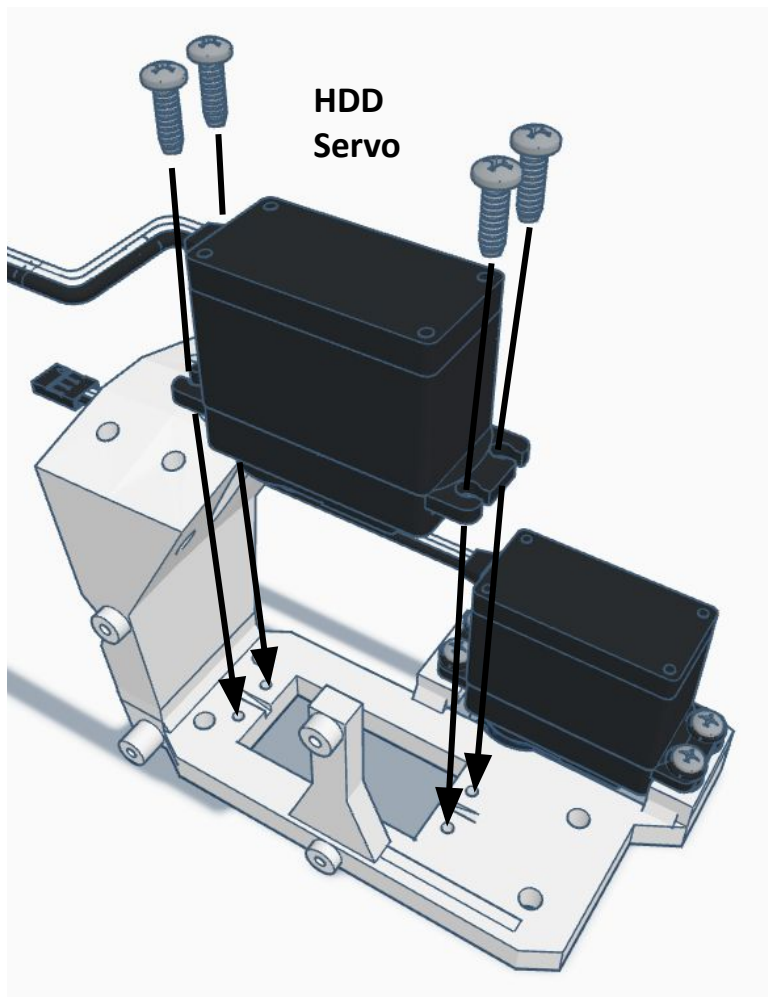




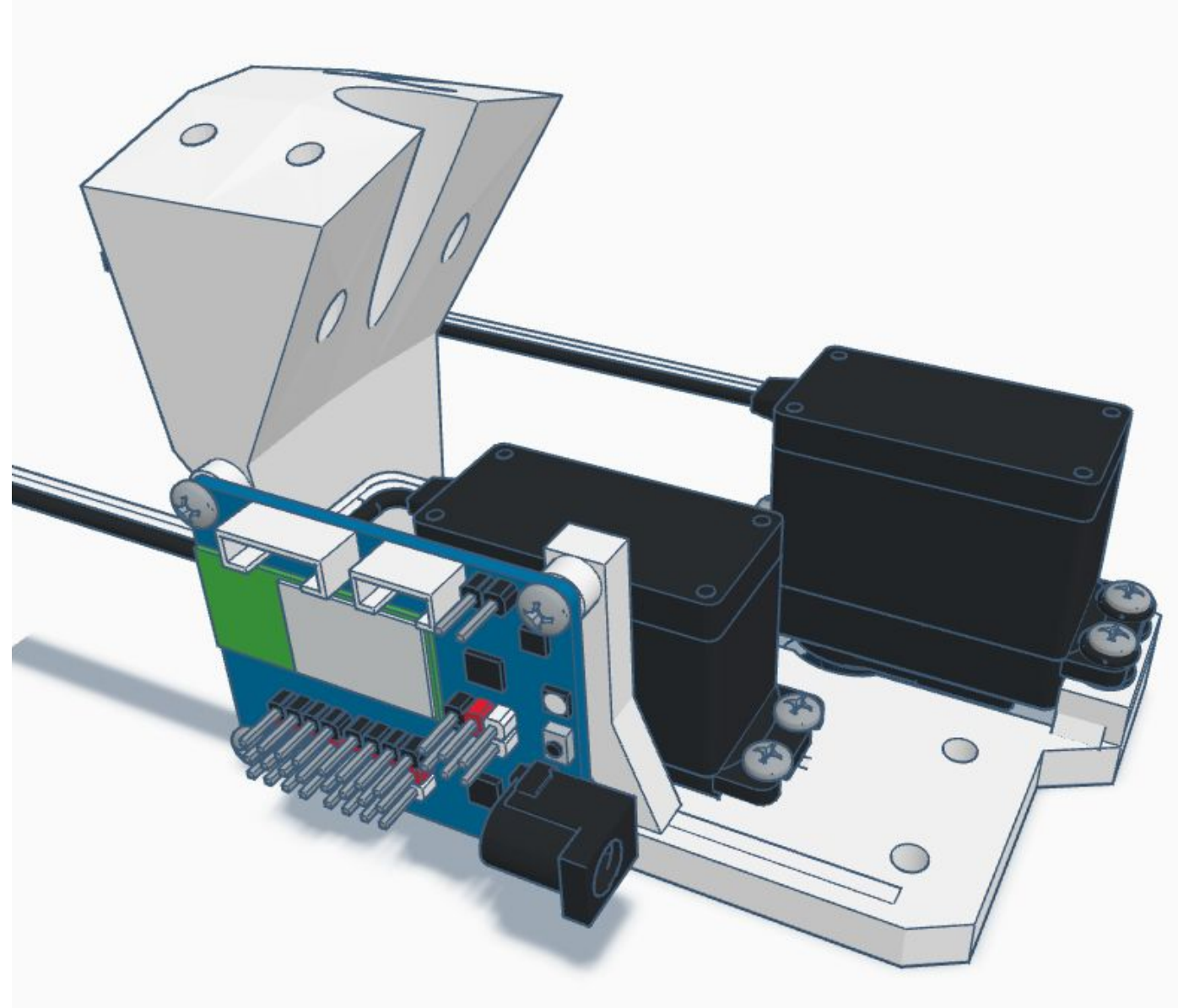
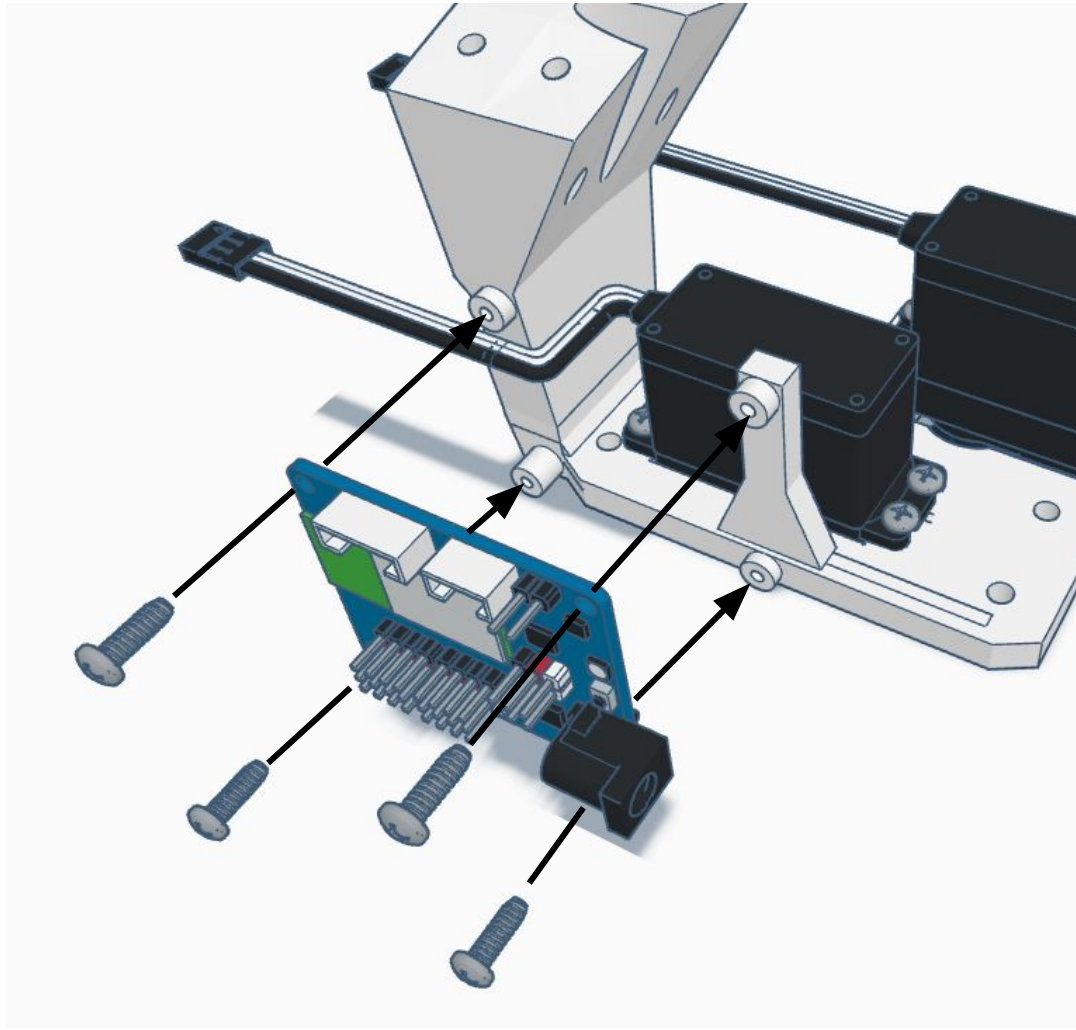
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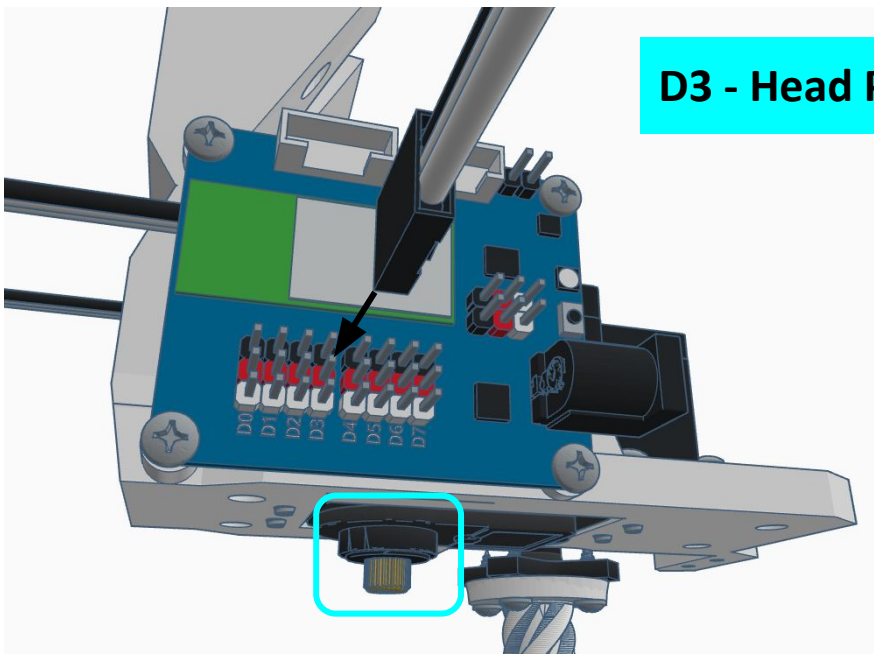
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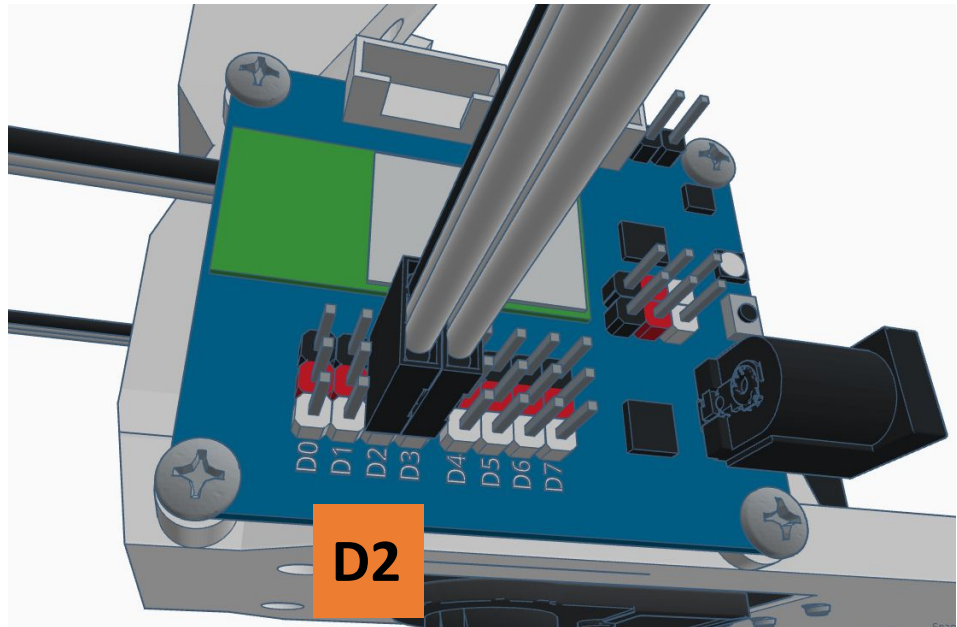
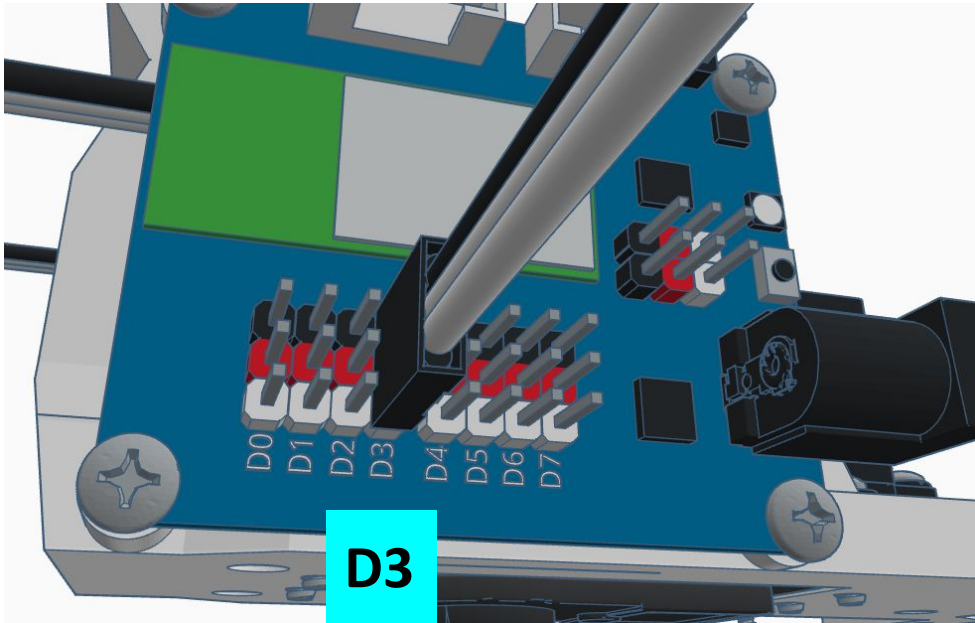
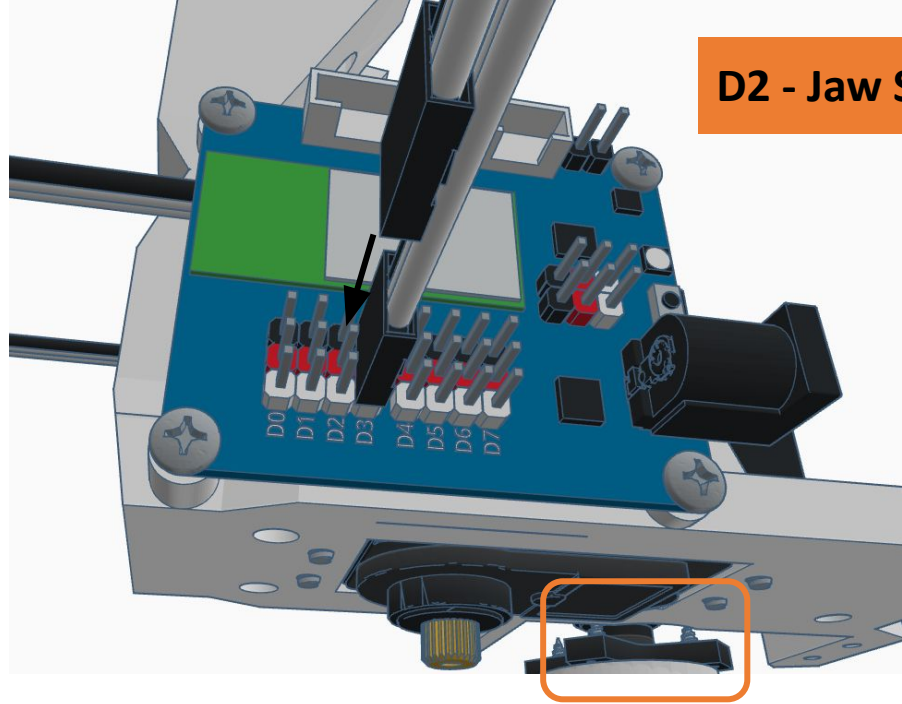
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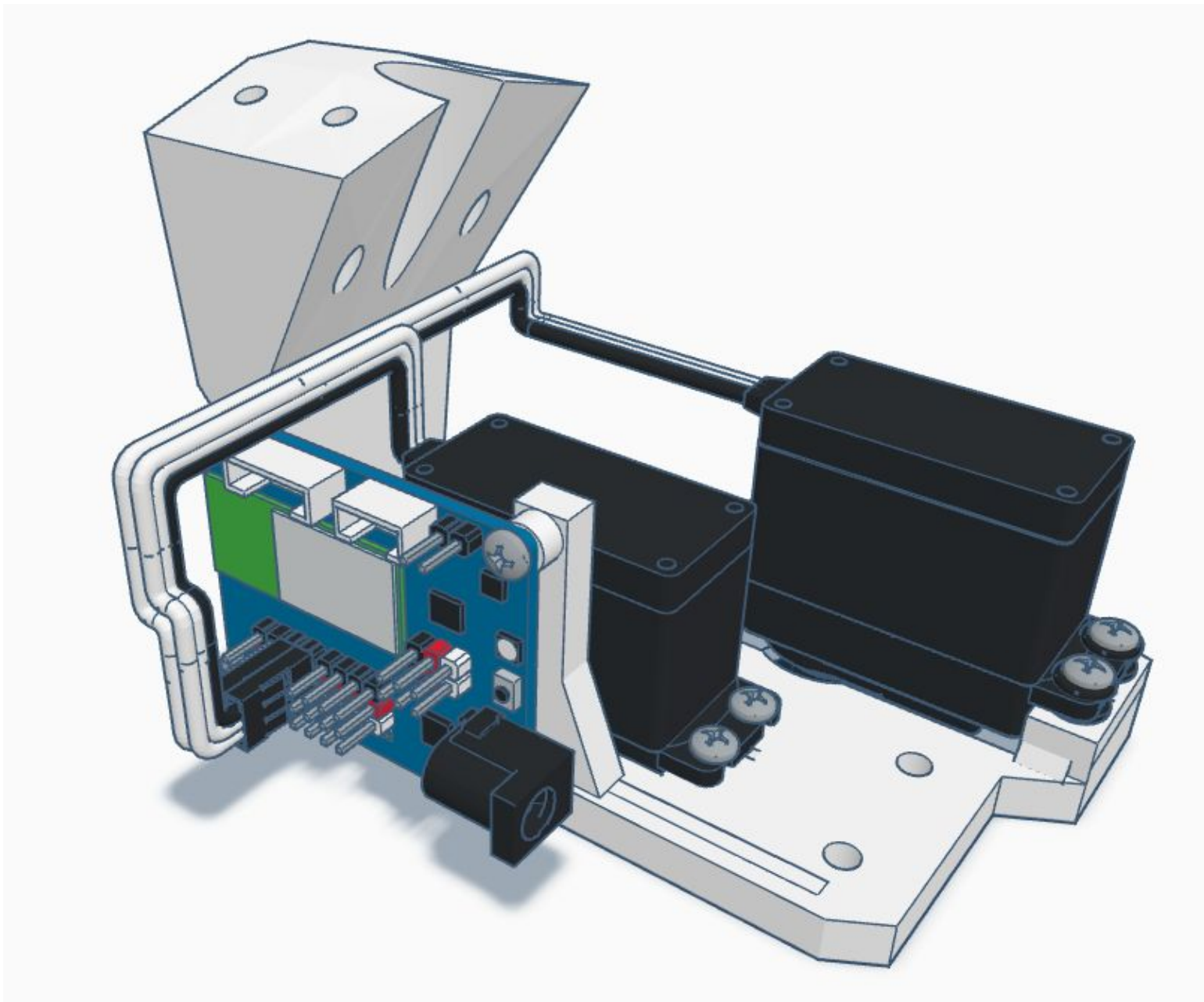


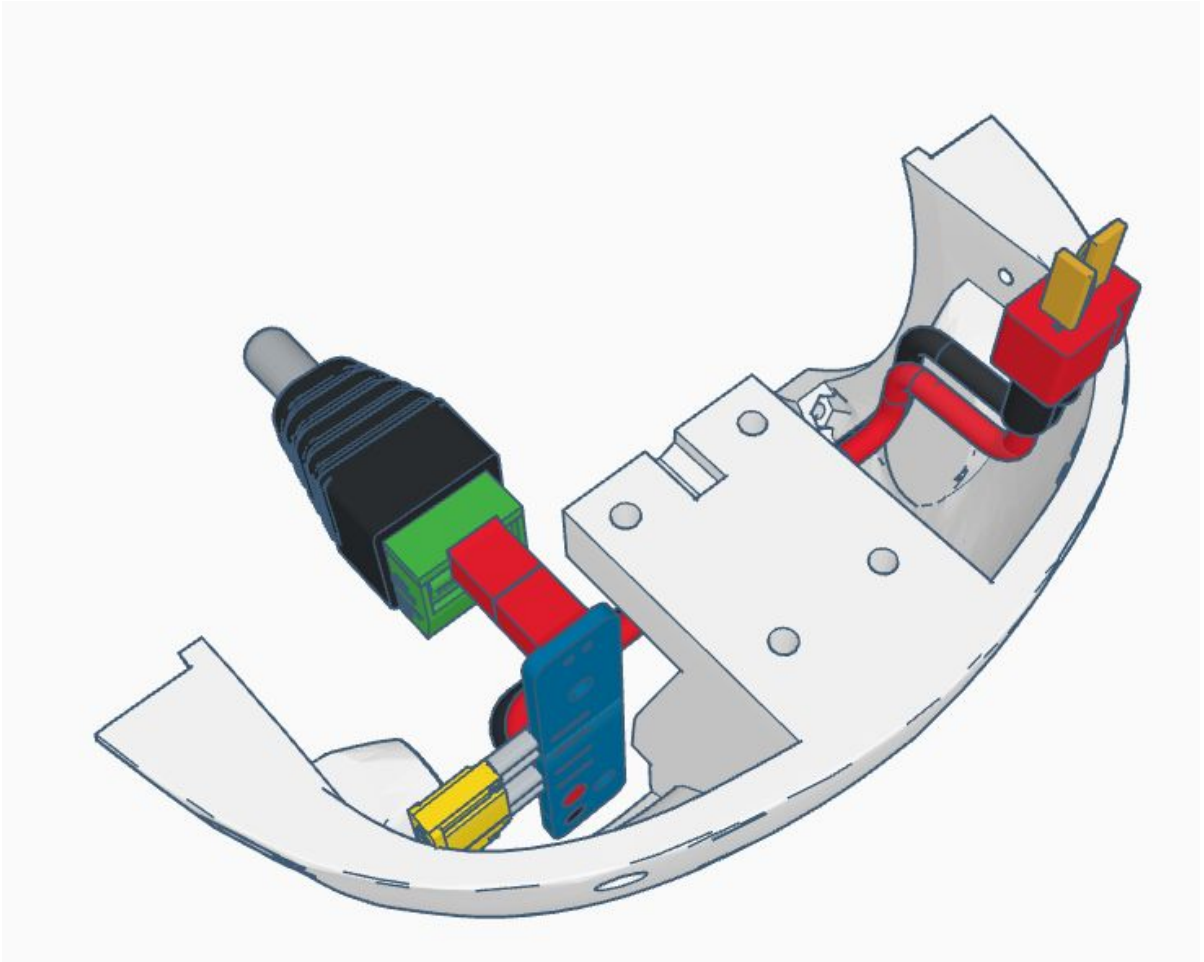
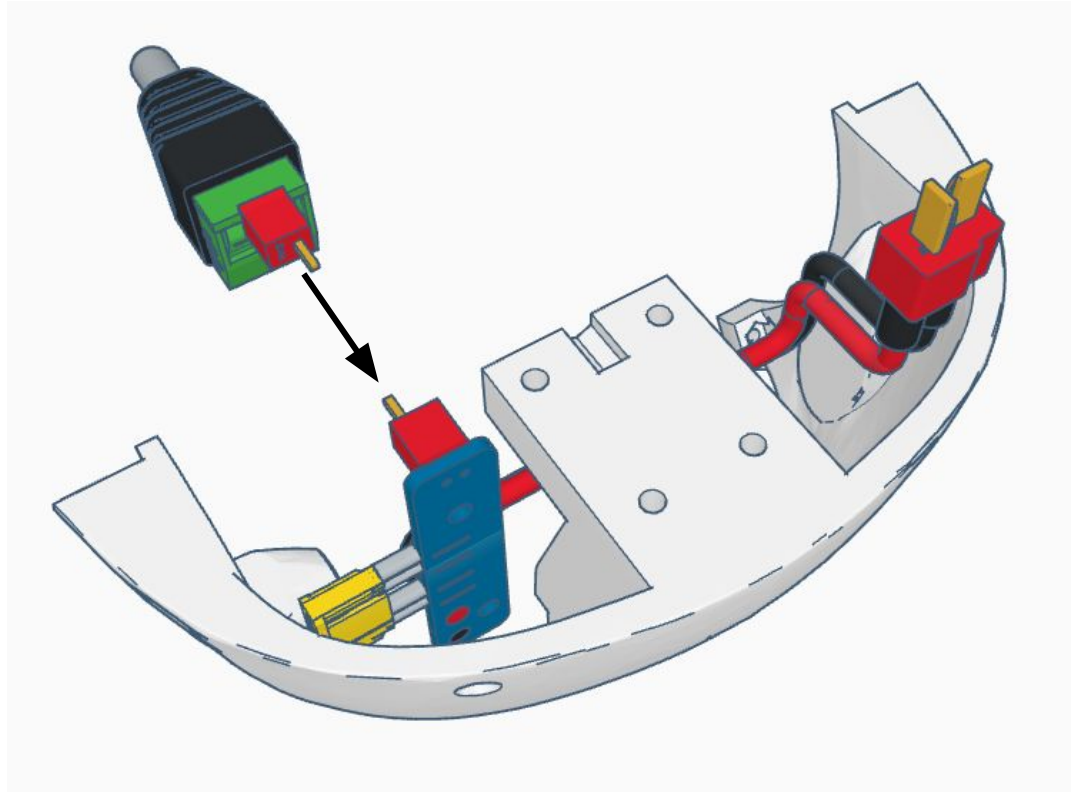
D3 - Head Pan Servo

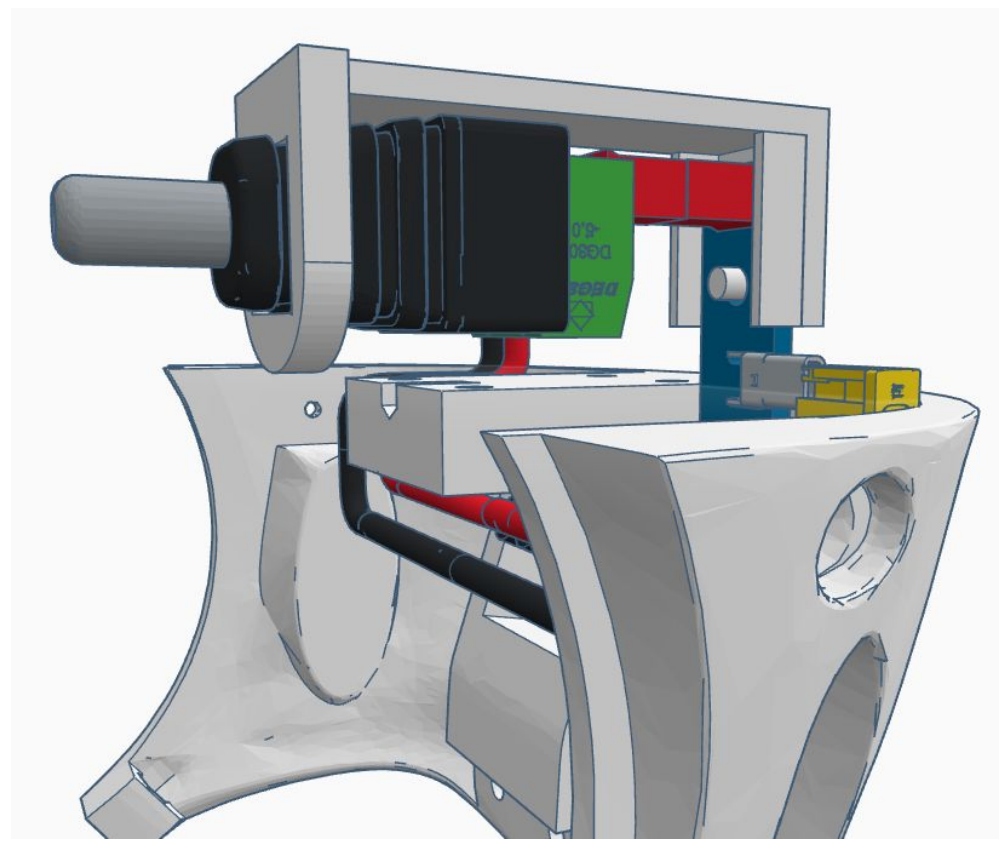
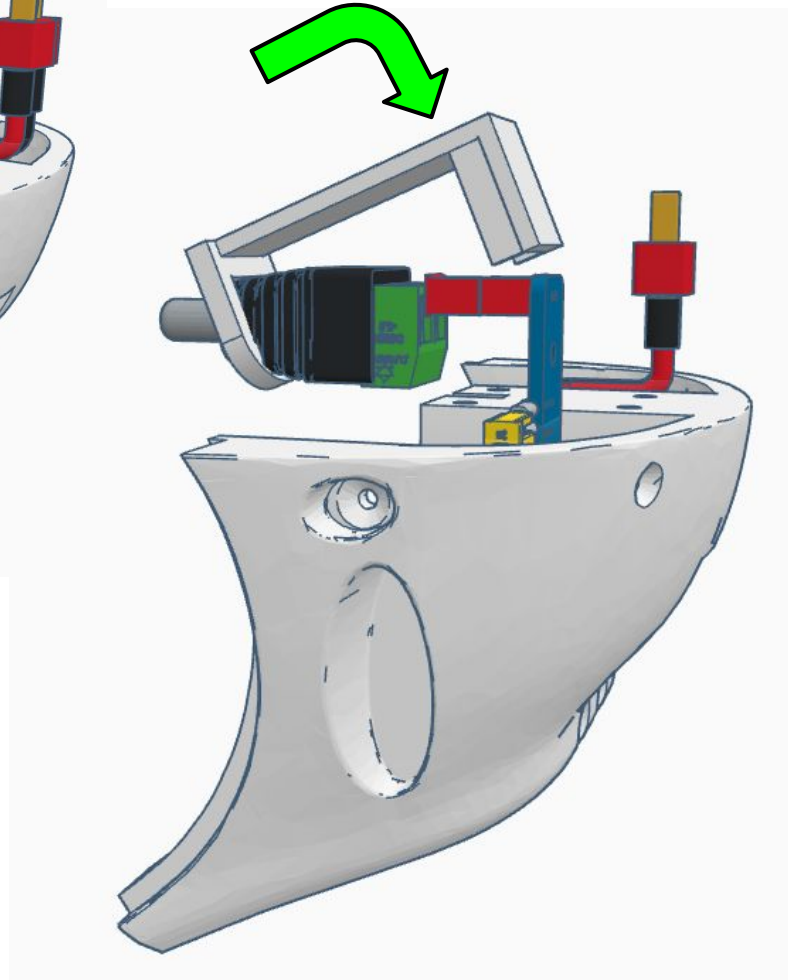
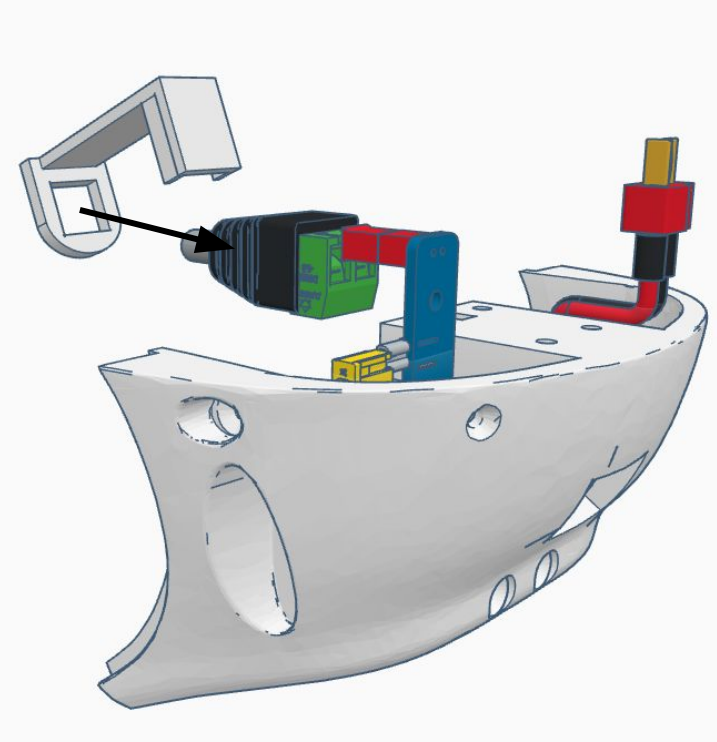


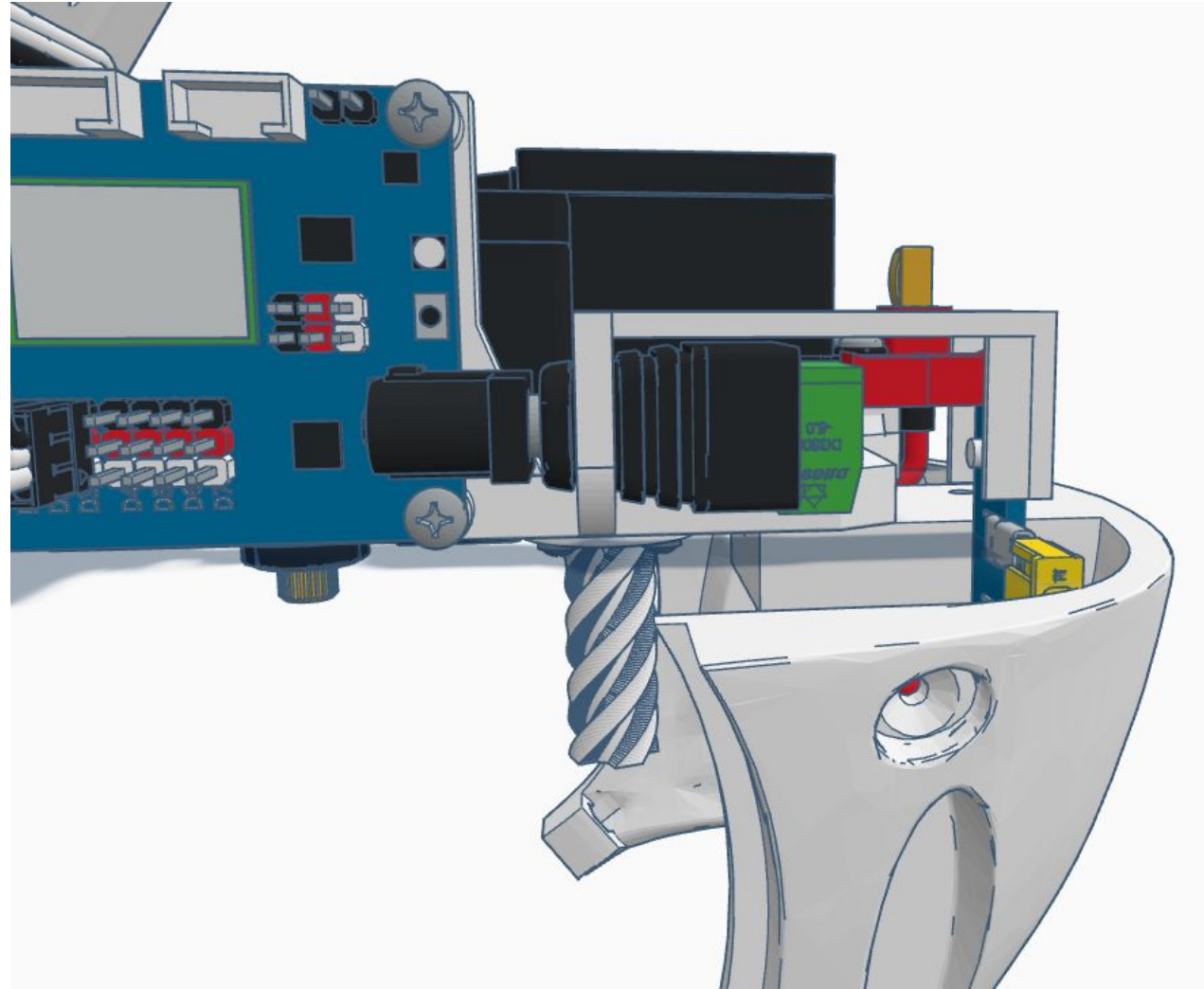
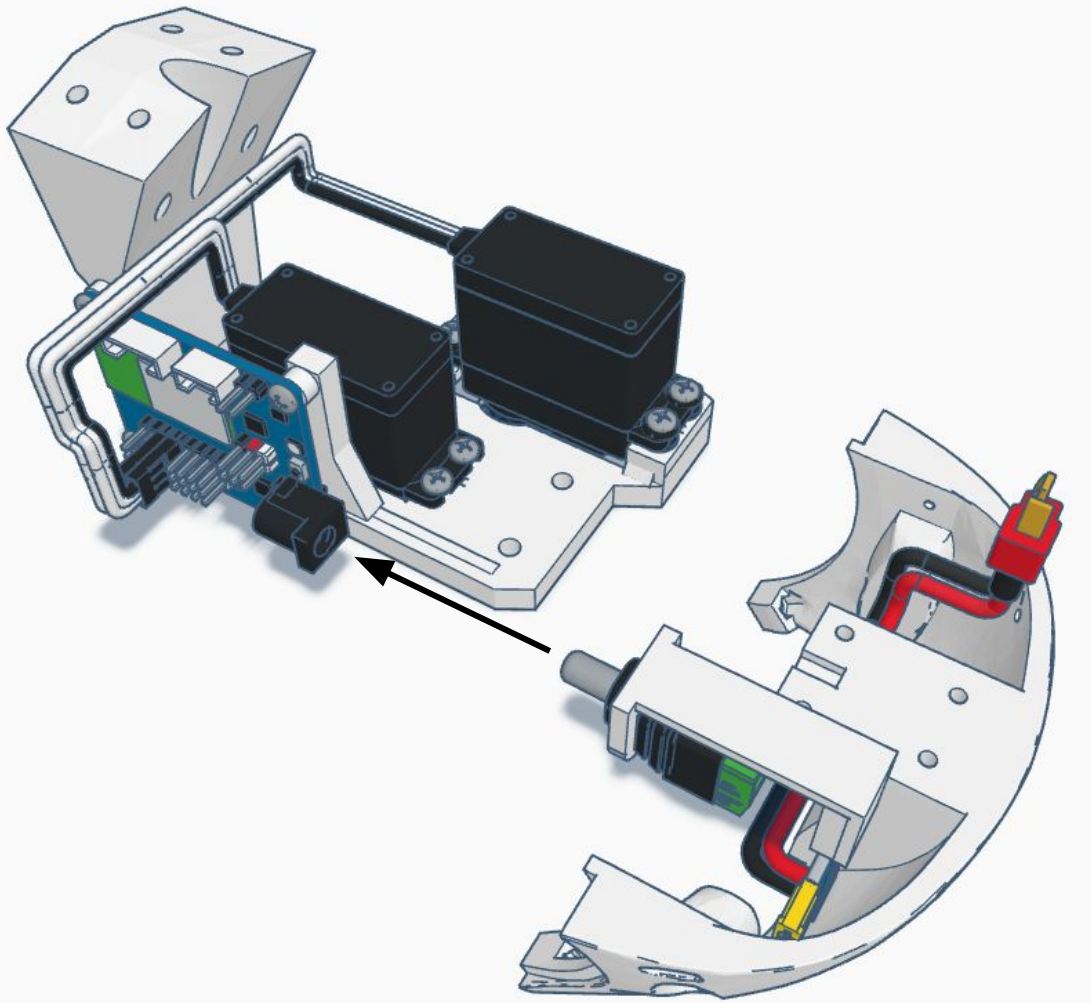
D2 - Jaw Servo

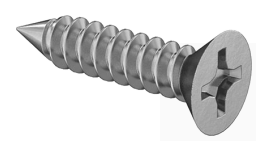


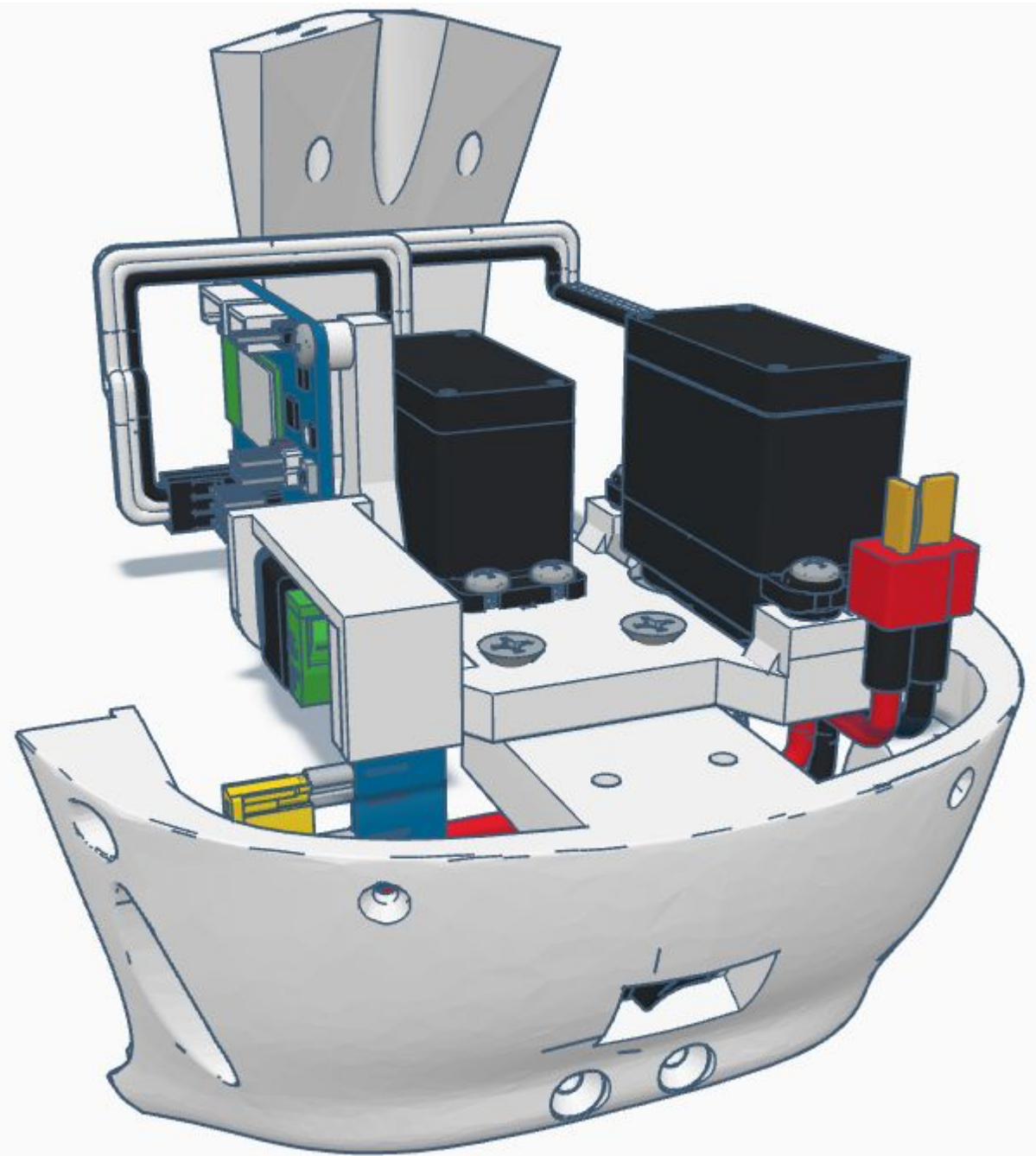
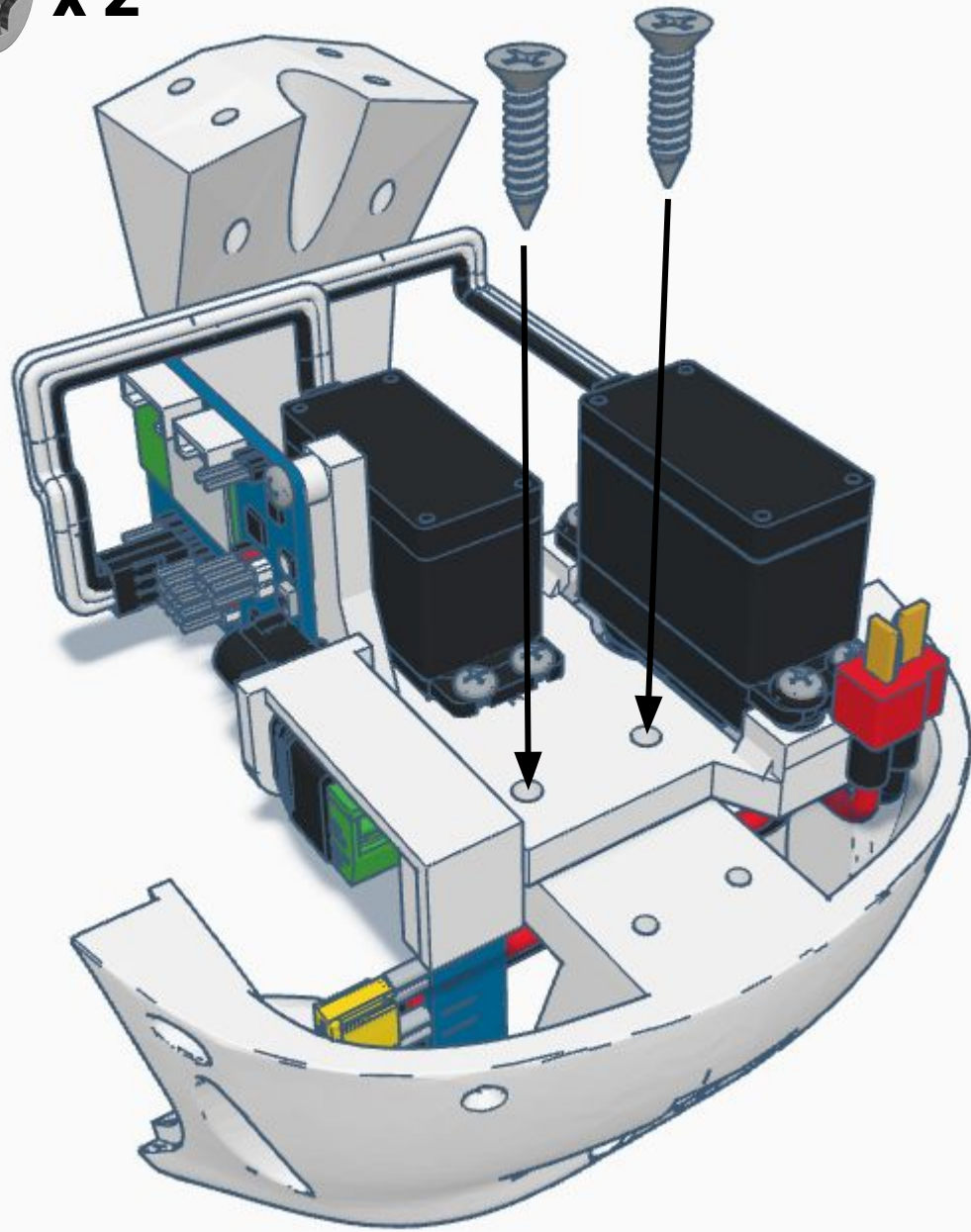


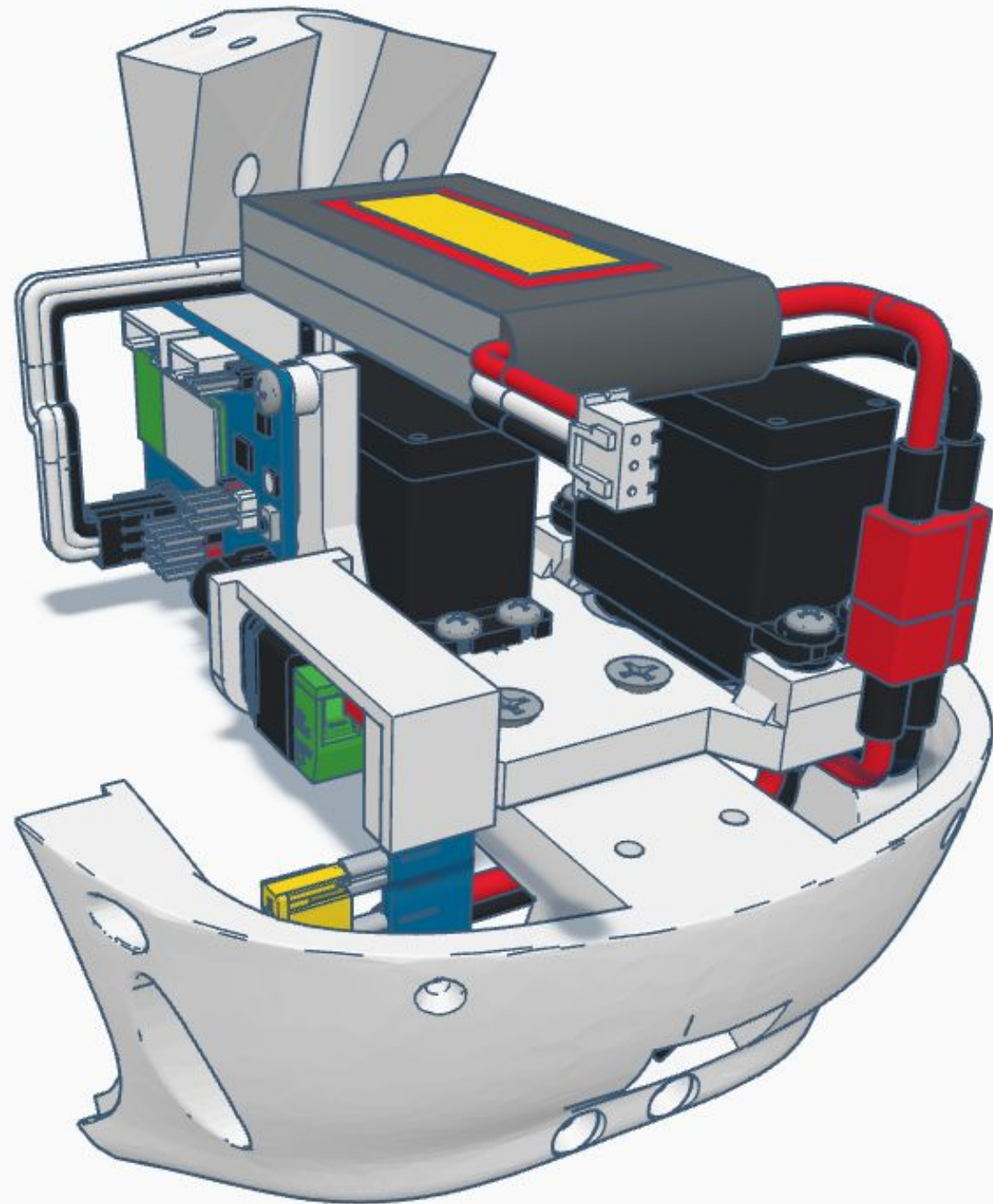
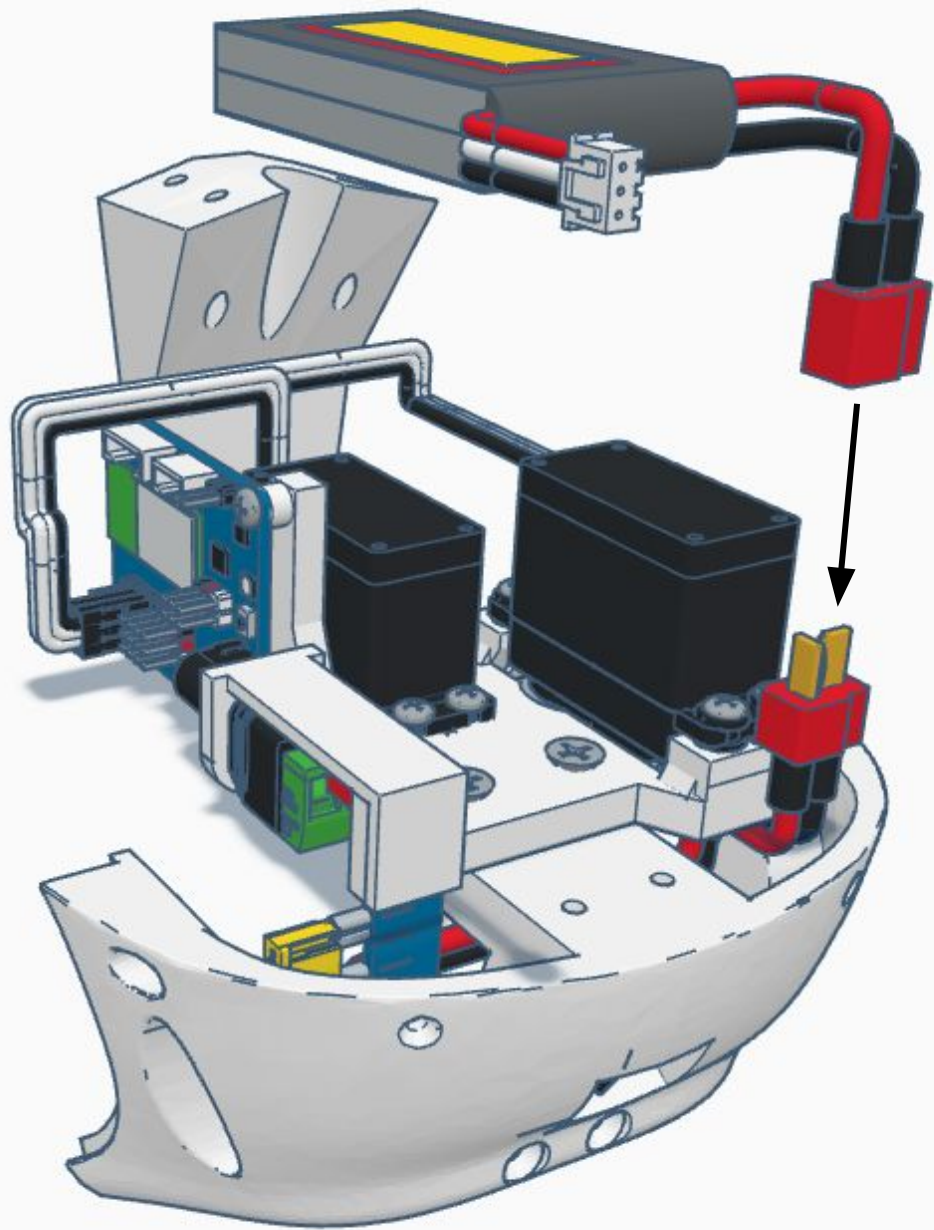


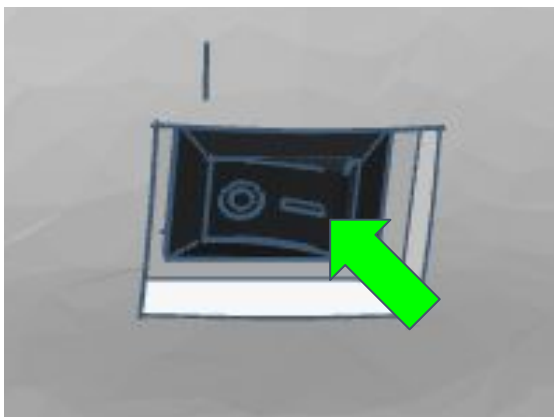
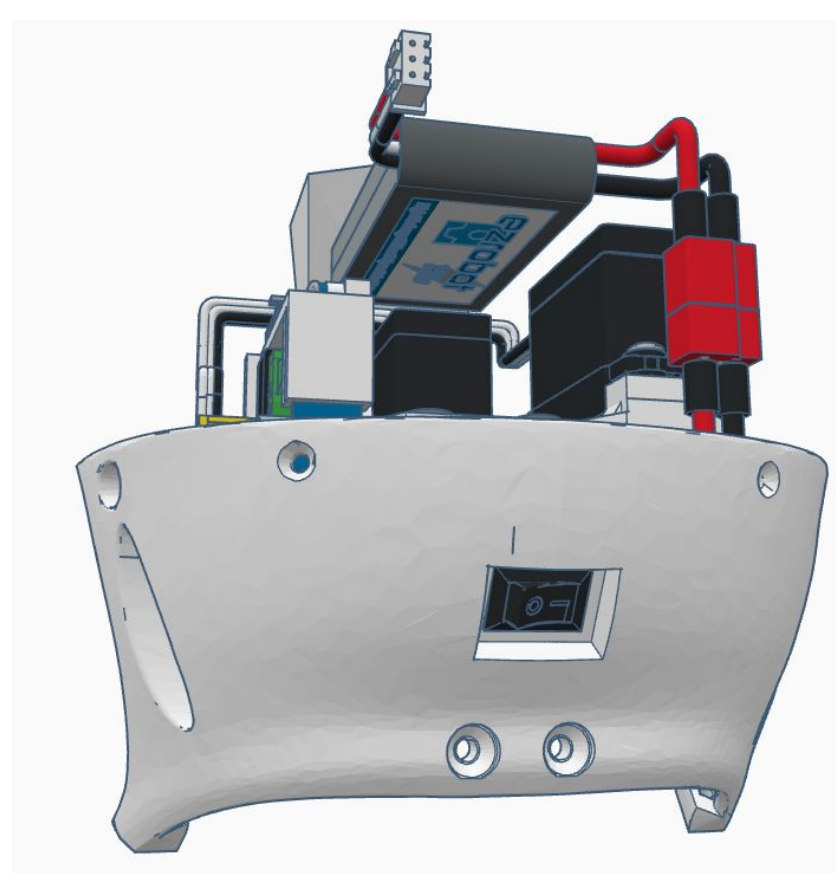
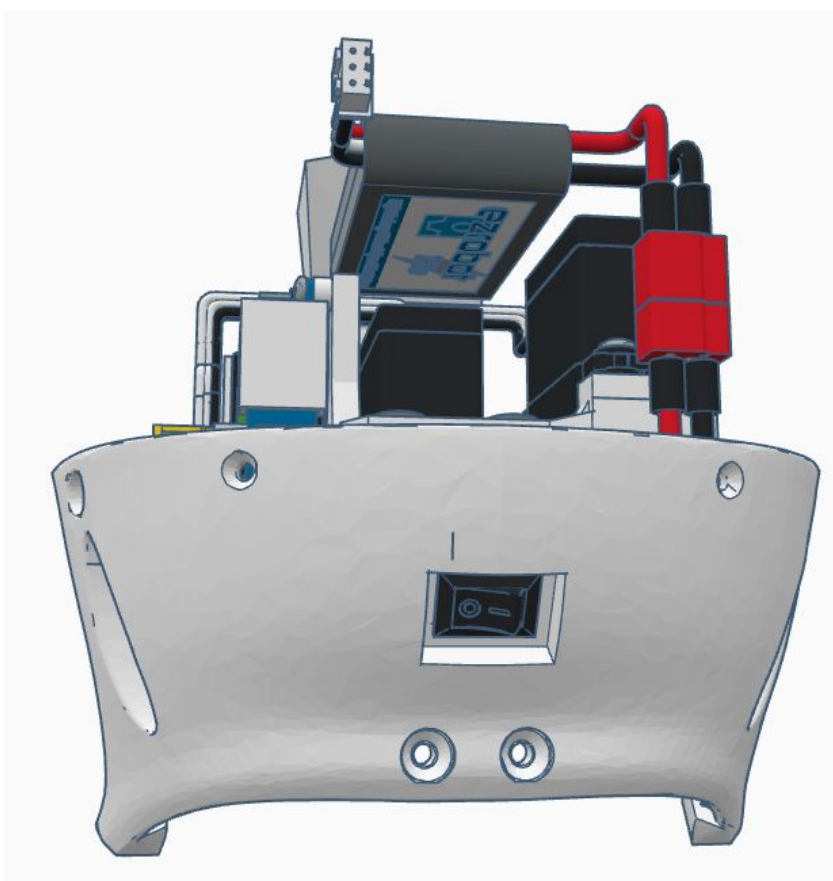




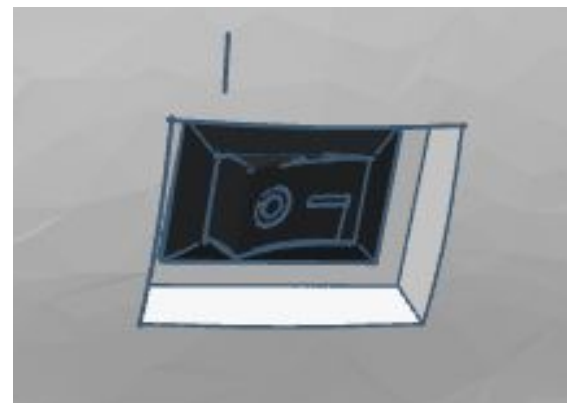
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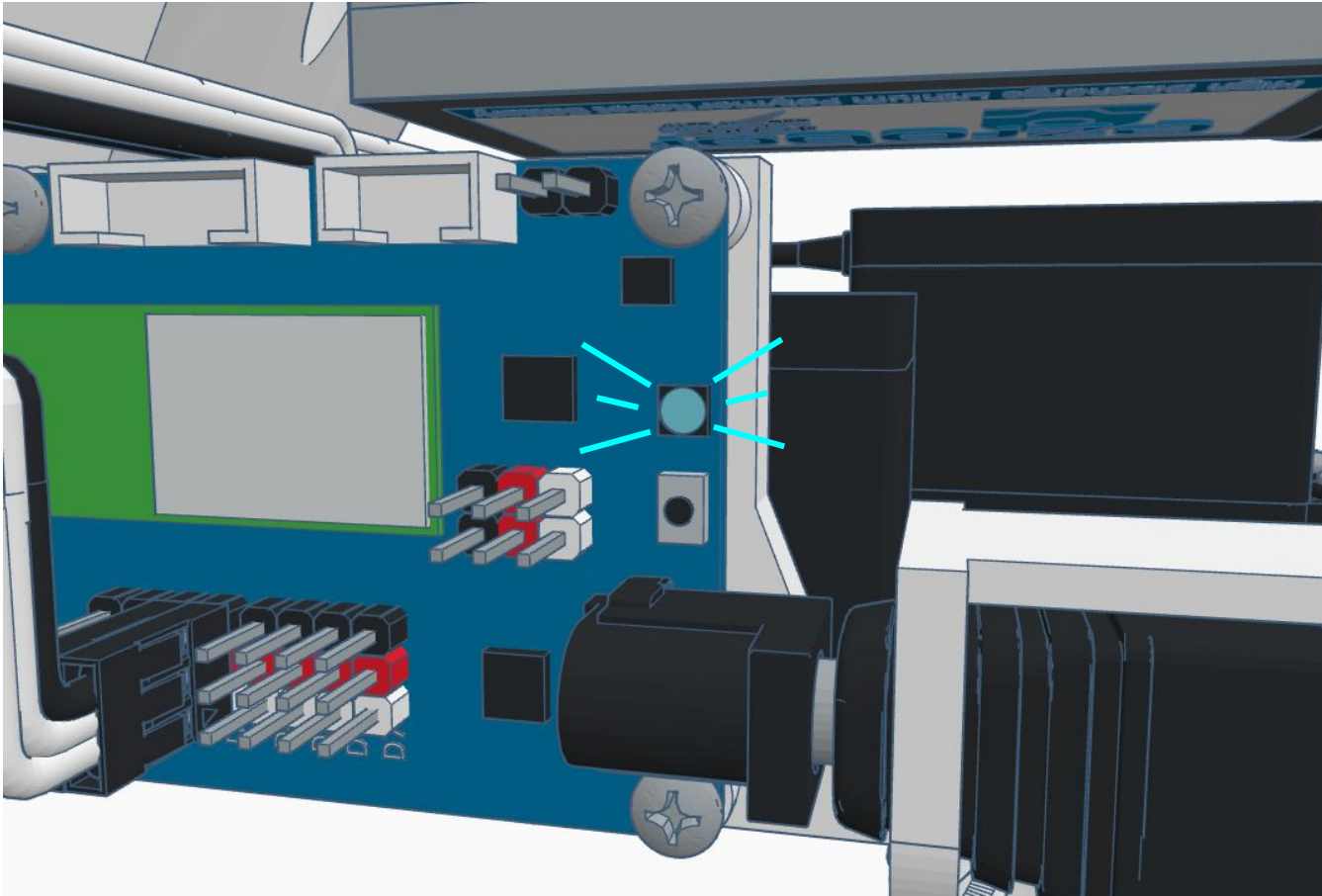


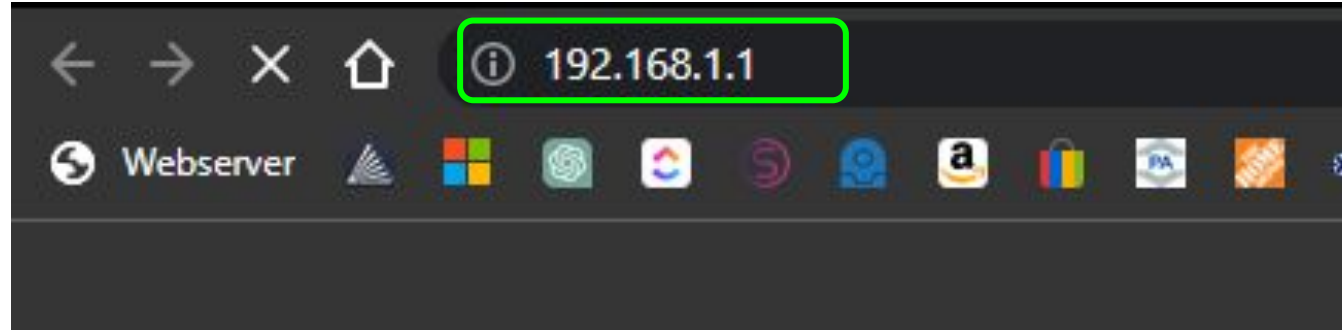
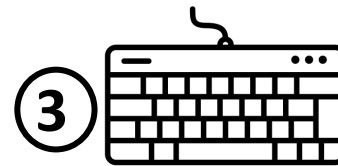


Press
Switch
ON



BLUE FLASHING LED ON IOTINY = READY TO CONNECT TO COMPUTER





IoTiny

Main Menu	IoTiny
Wi-Fi AP Mode	Introduction Welcome to IoTiny! This web interface allows you to configure IoTiny's settings. For more information about IoTiny, connect to the internet and visit www.ez-robot.com .
Wi-Fi Client Mode	Current Configuration
General Settings	System Name: EZ-B v4 IoTiny SSID: EZ-B v4 IoTiny d0bae4103a58 Wi-Fi Mode: Custom AP Mode (Ad-Hoc) Model: EZ-B v4 IoTiny Advanced Settings: Version: WiFi 3165 v2018.09.30.00
Diagnostics	

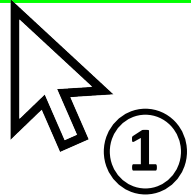
WiFi Modes

Wi-Fi Access Point (AP) Mode
IoTiny becomes a Wi-Fi Server which allows your device to connect to it. This is the default setting for IoTiny. In this mode, your device (i.e. Computer, iPad, iPhone, etc.) will connect directly to IoTiny over its Wi-Fi network. You will lose access to the internet if connected this way, unless your device has two network adapters.

Wi-Fi Client Mode
IoTiny will connect to an existing Wi-Fi network as a client, much like how your iPhone, iPad and Computer connects to your home network. When IoTiny is connected to your Wi-Fi network, you may not know the IP Address that it is assigned. The EZ-Builder software includes a network scan tool which will find all EZ-B's on your network.

Reset to Defaults
To reset IoTiny to default network & factory settings, use a paperclip and gently press and release the reset button located on the top of IoTiny while powered. Once the reset has been acknowledged by IoTiny, a message will be spoken out of the speaker confirming the reset to factory defaults. The factory default will configure IoTiny for Ad-Hoc mode, with the WiFi SSID including the MAC Address for identification.

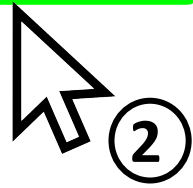
- Main Menu
- Wi-Fi AP Mode
- Wi-Fi Client Mode
- General Settings
- Advanced Settings
- Diagnostics**



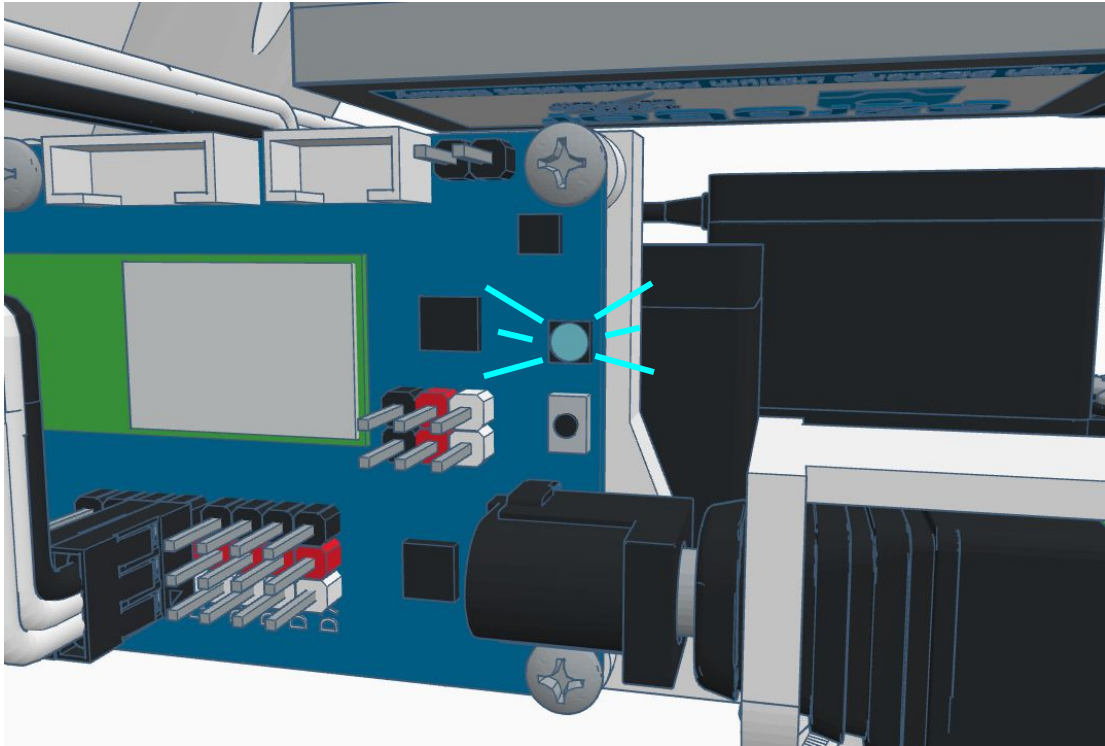
Diagnostics



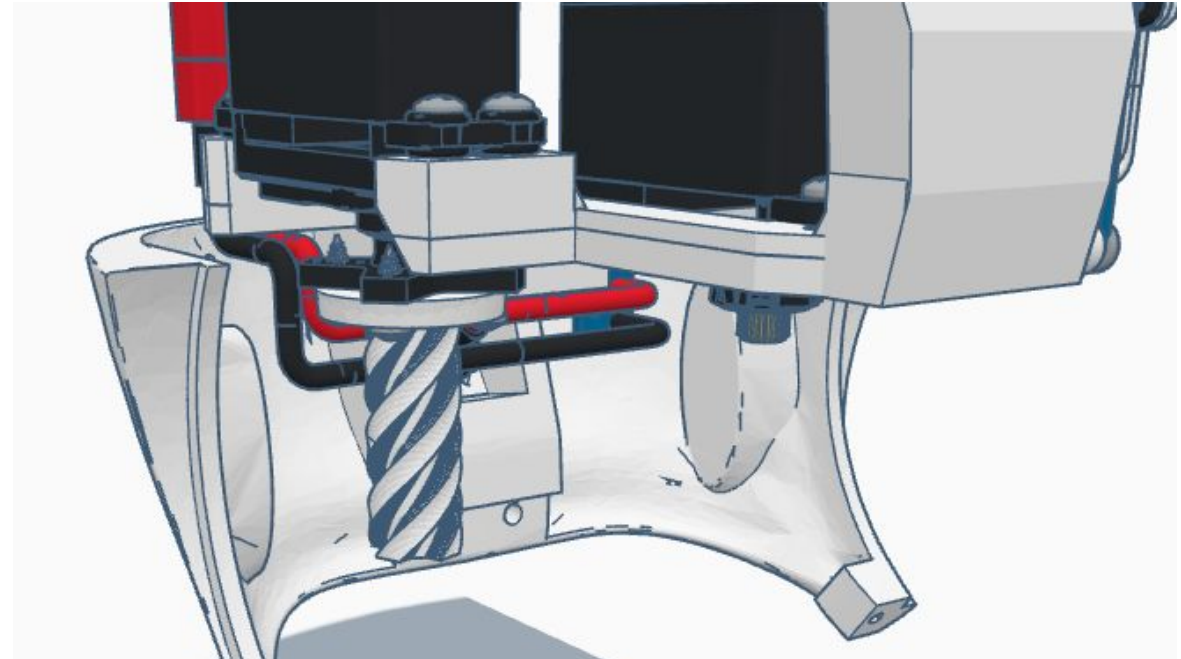
- All Servo Ports Release
- All Servo Ports to 1 Degree
- All Servo Ports to 90 Degrees**
- All Servo Ports to 180 Degree
- Alternating Digital I/O Mode 1
- Alternating Digital I/O Mode 2
- Reboot EZ-B



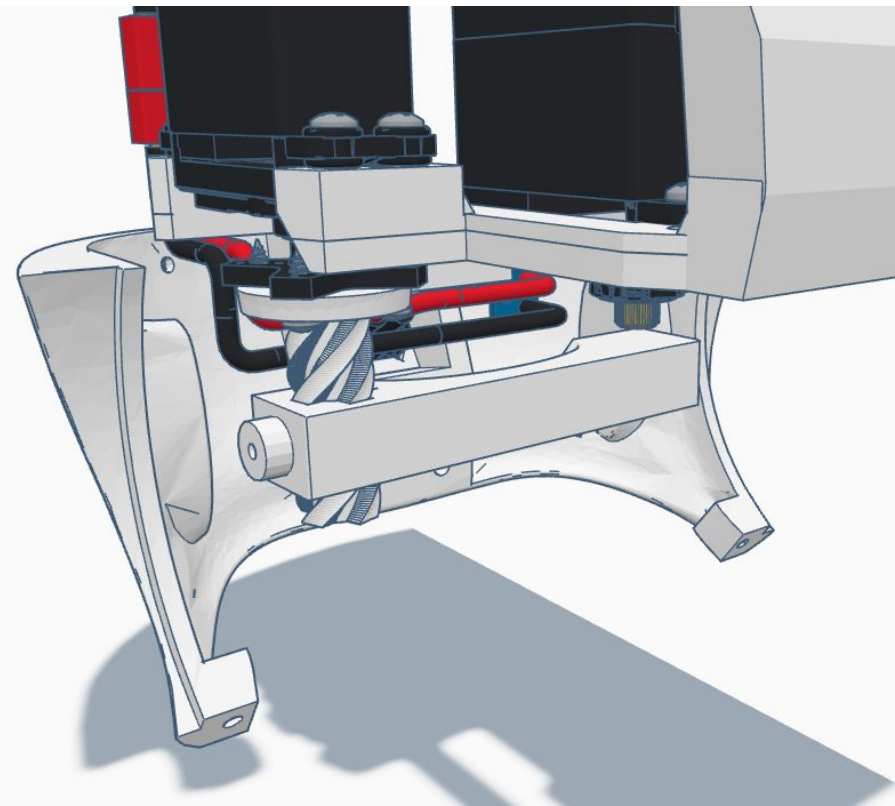
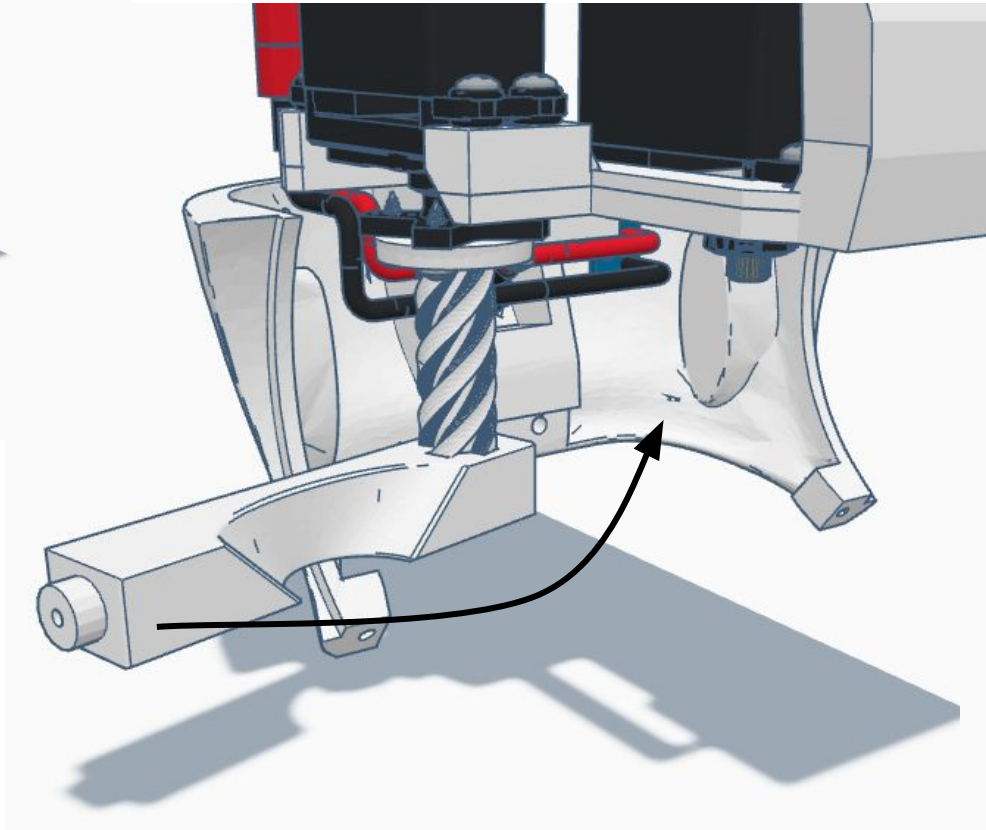
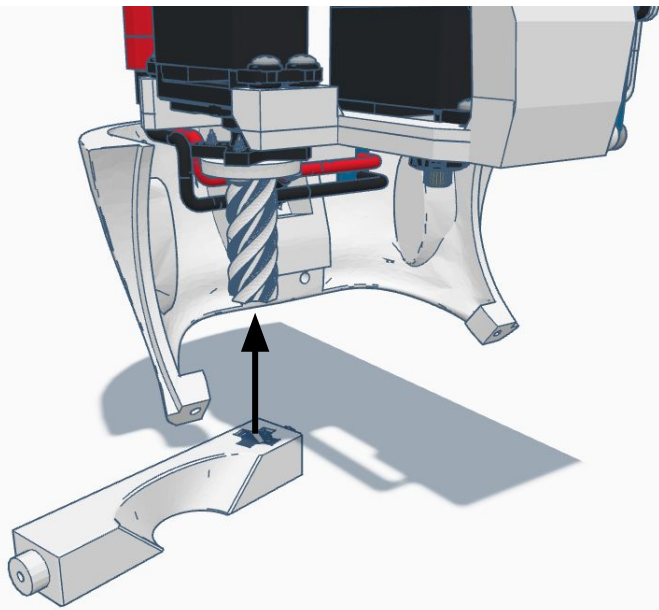
LED WILL CONTINUE TO FLASH BLUE ON IOTINY

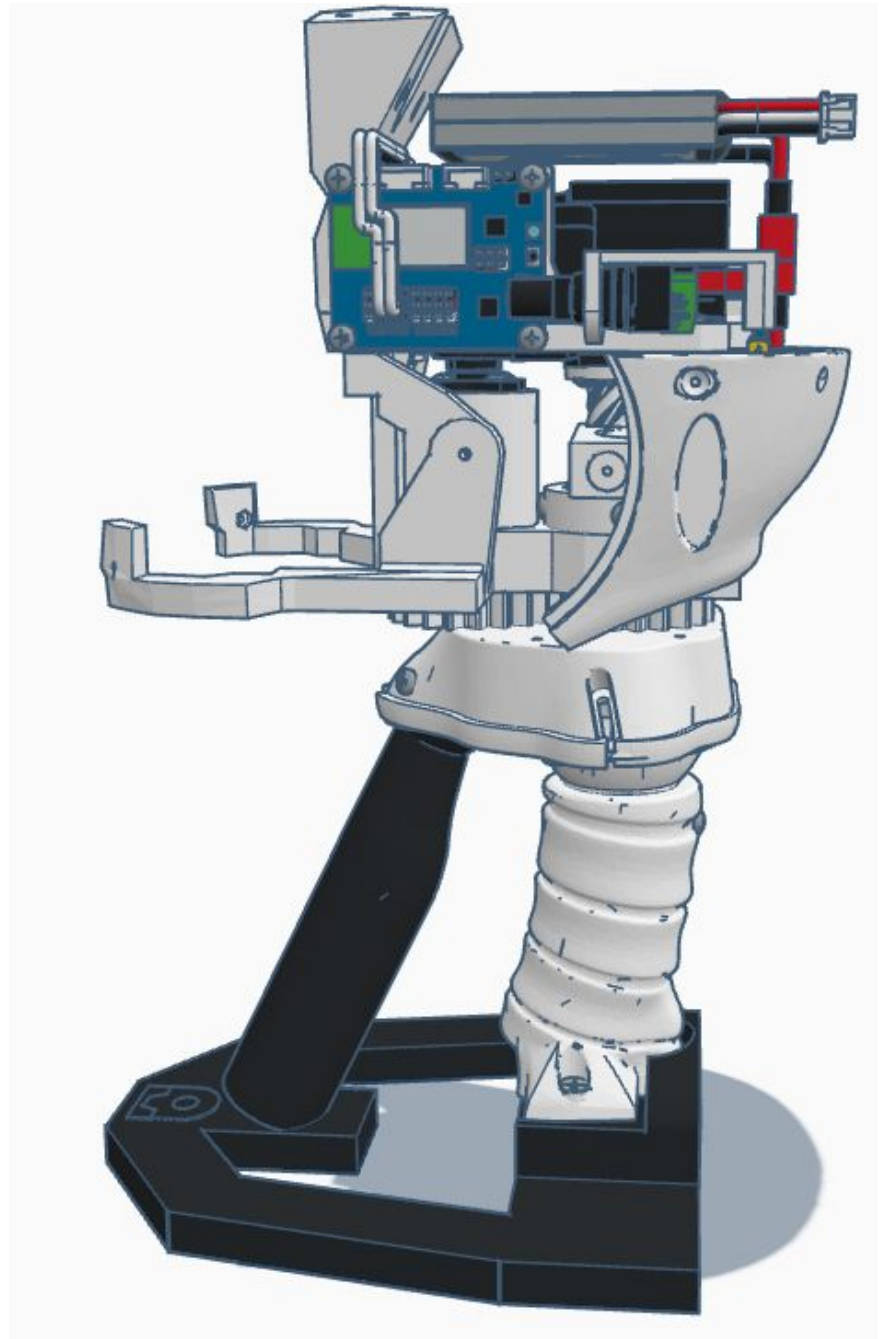
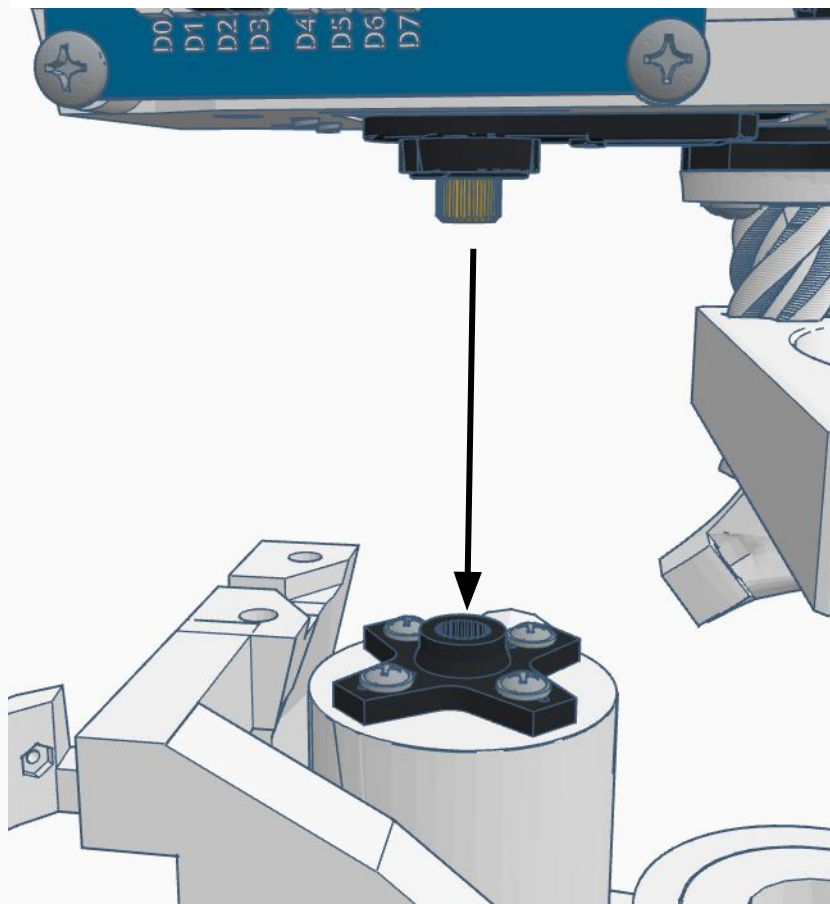
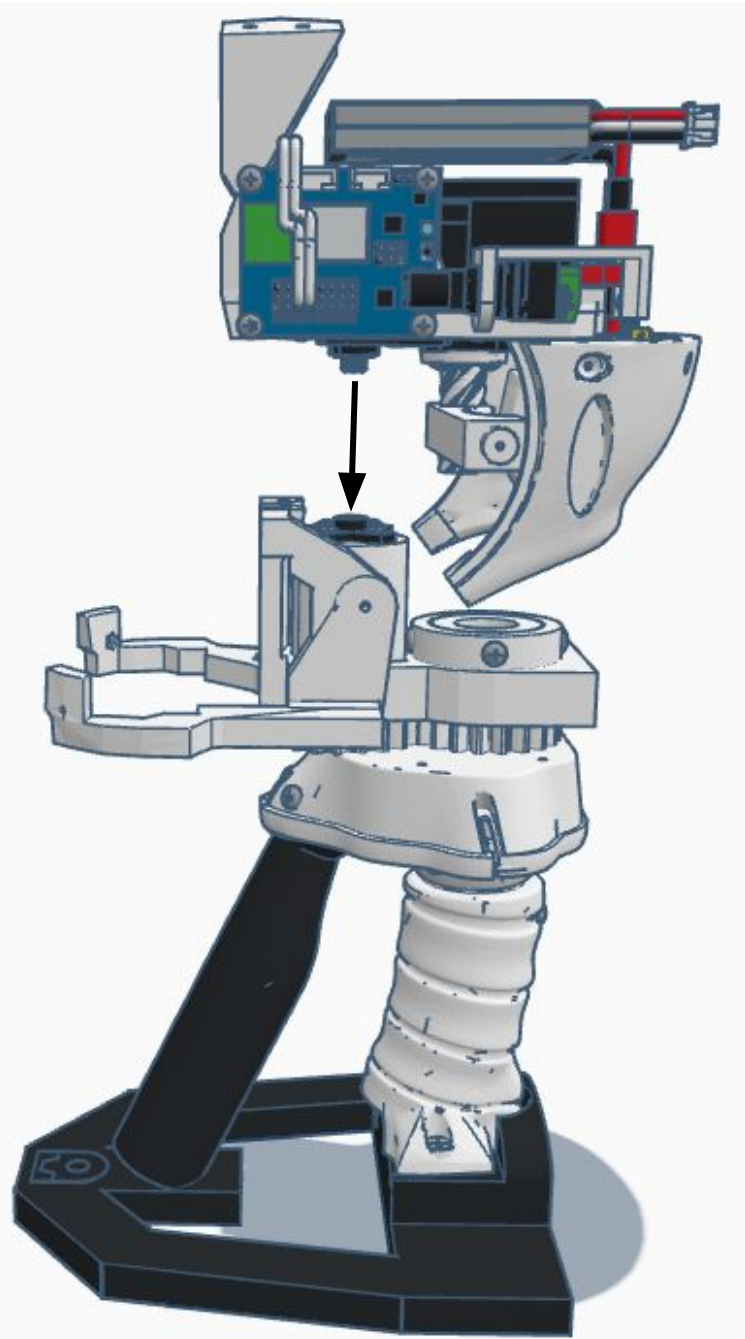


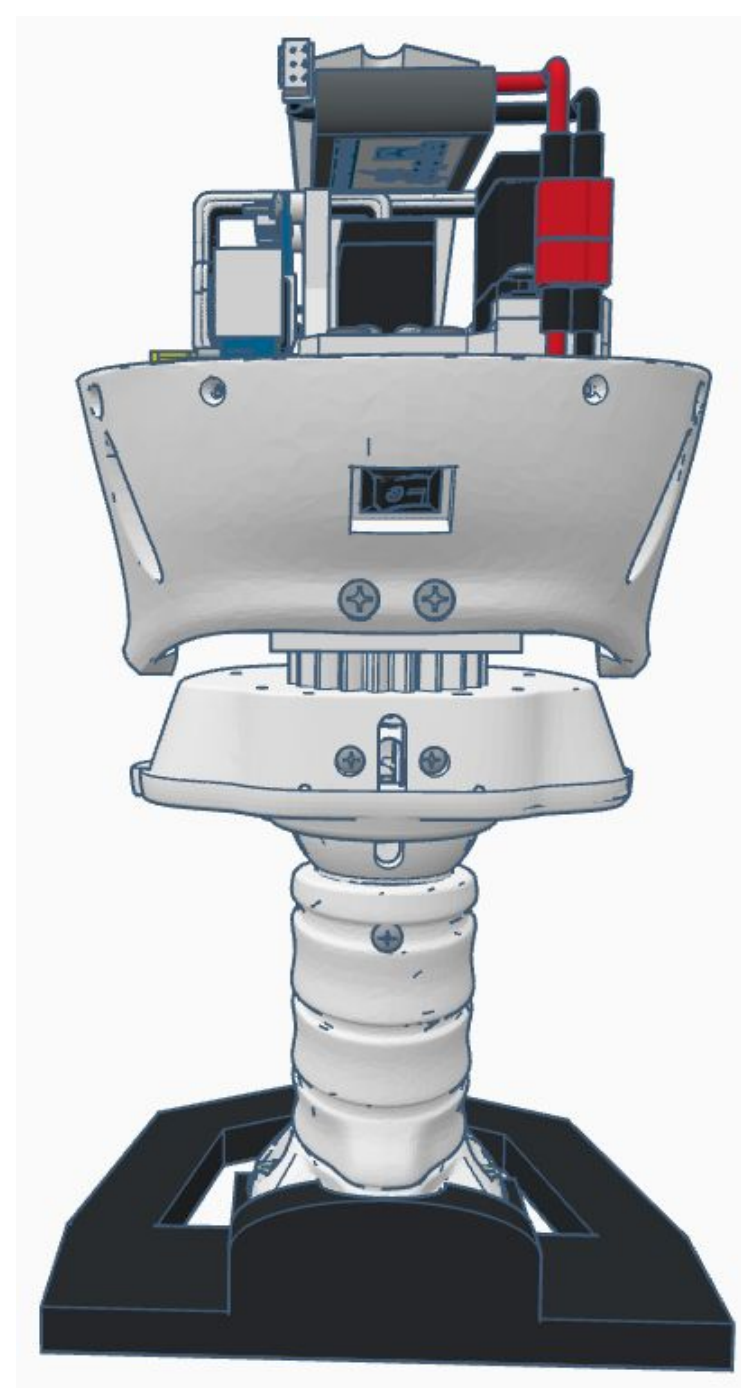
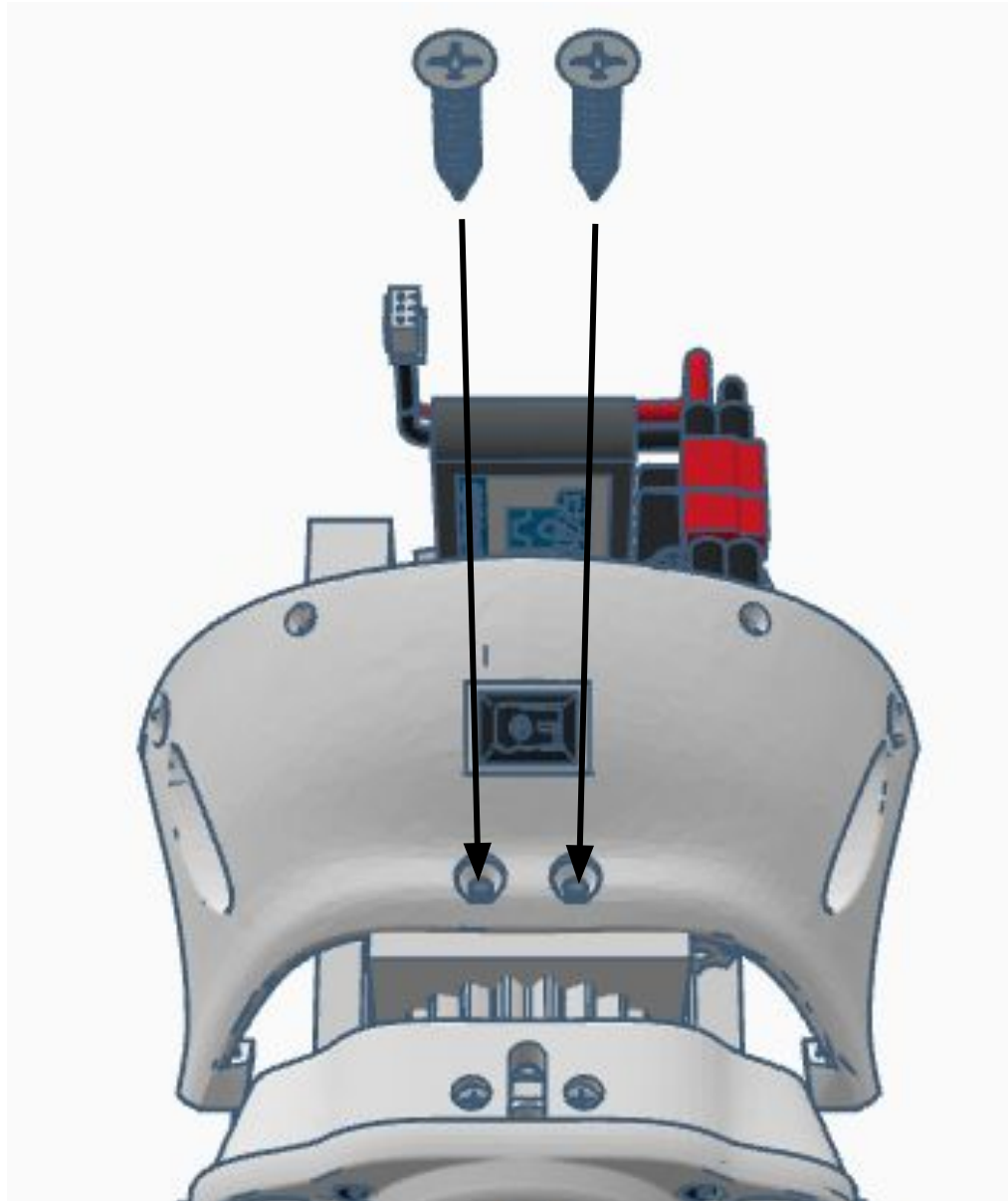
SERVOS WILL MOVE TO 90 DEGREE POSITION



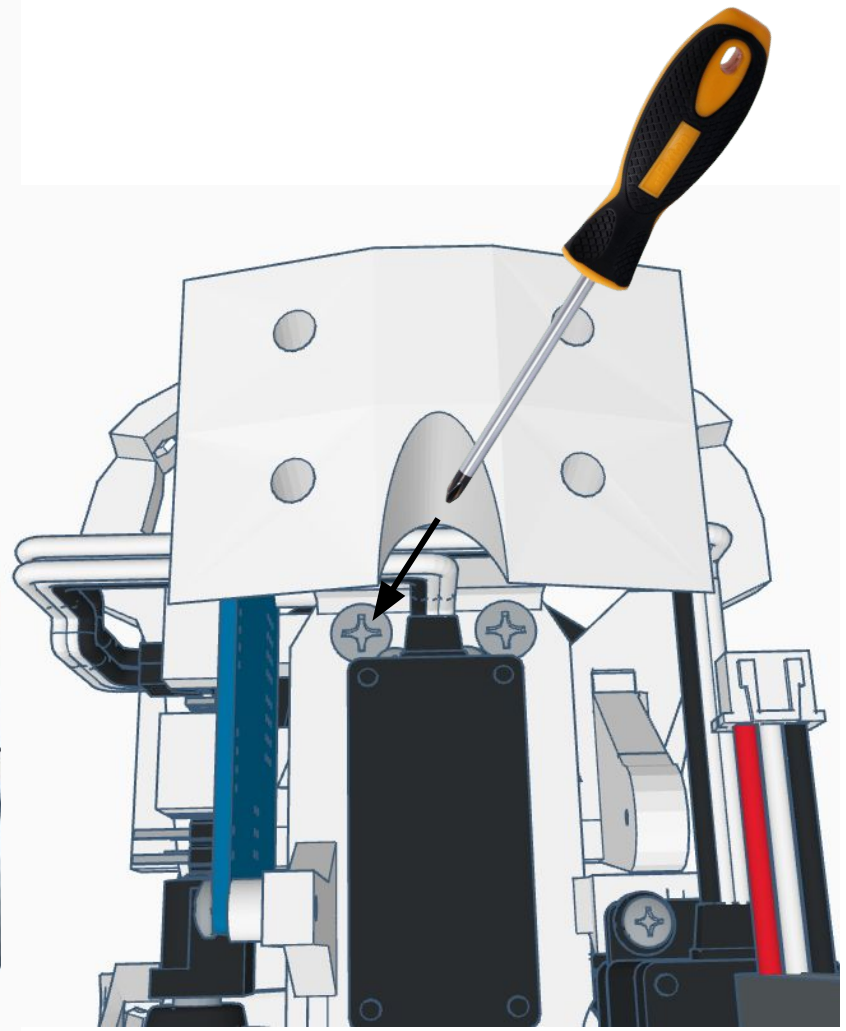
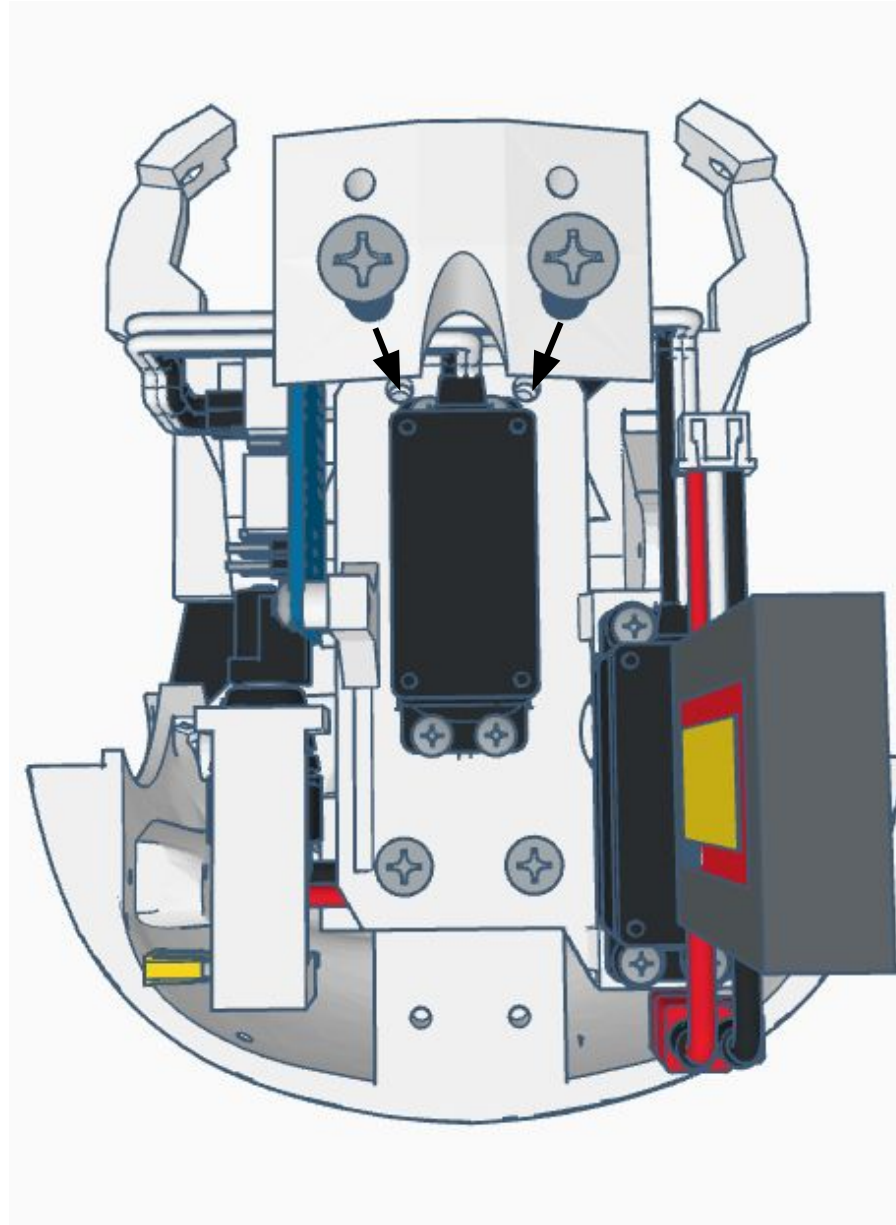
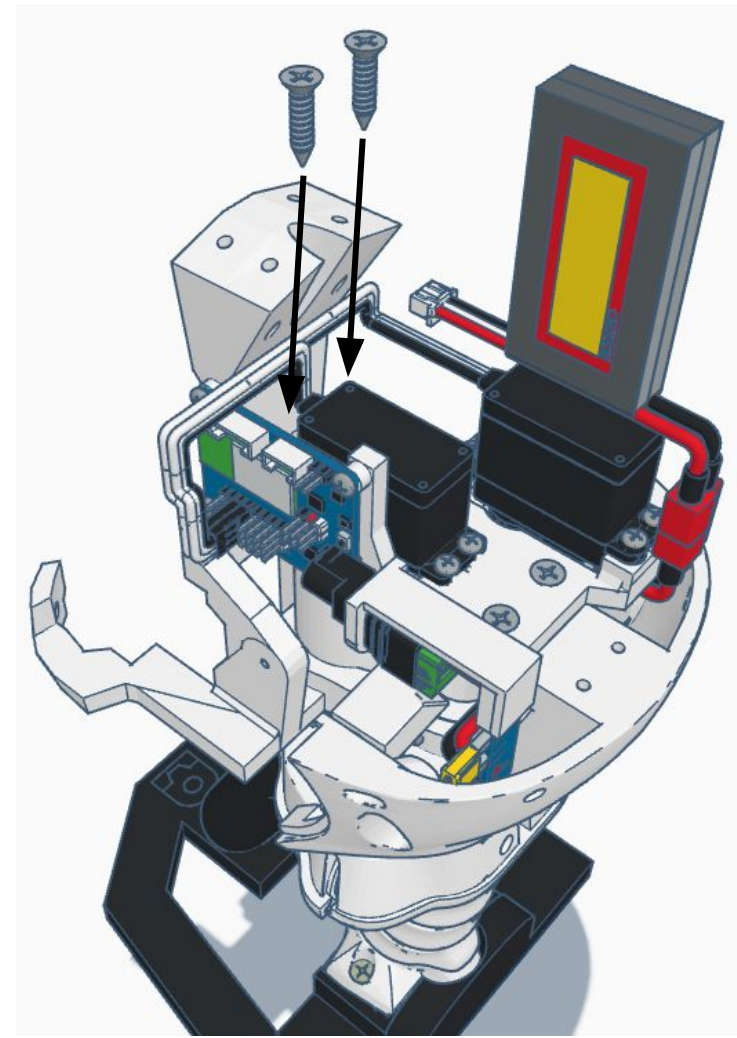
NOTE: IF ALREADY AT 90 DEGREES THE SERVOS WILL NOT MOVE

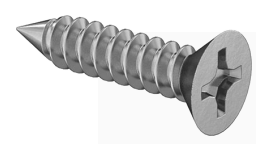


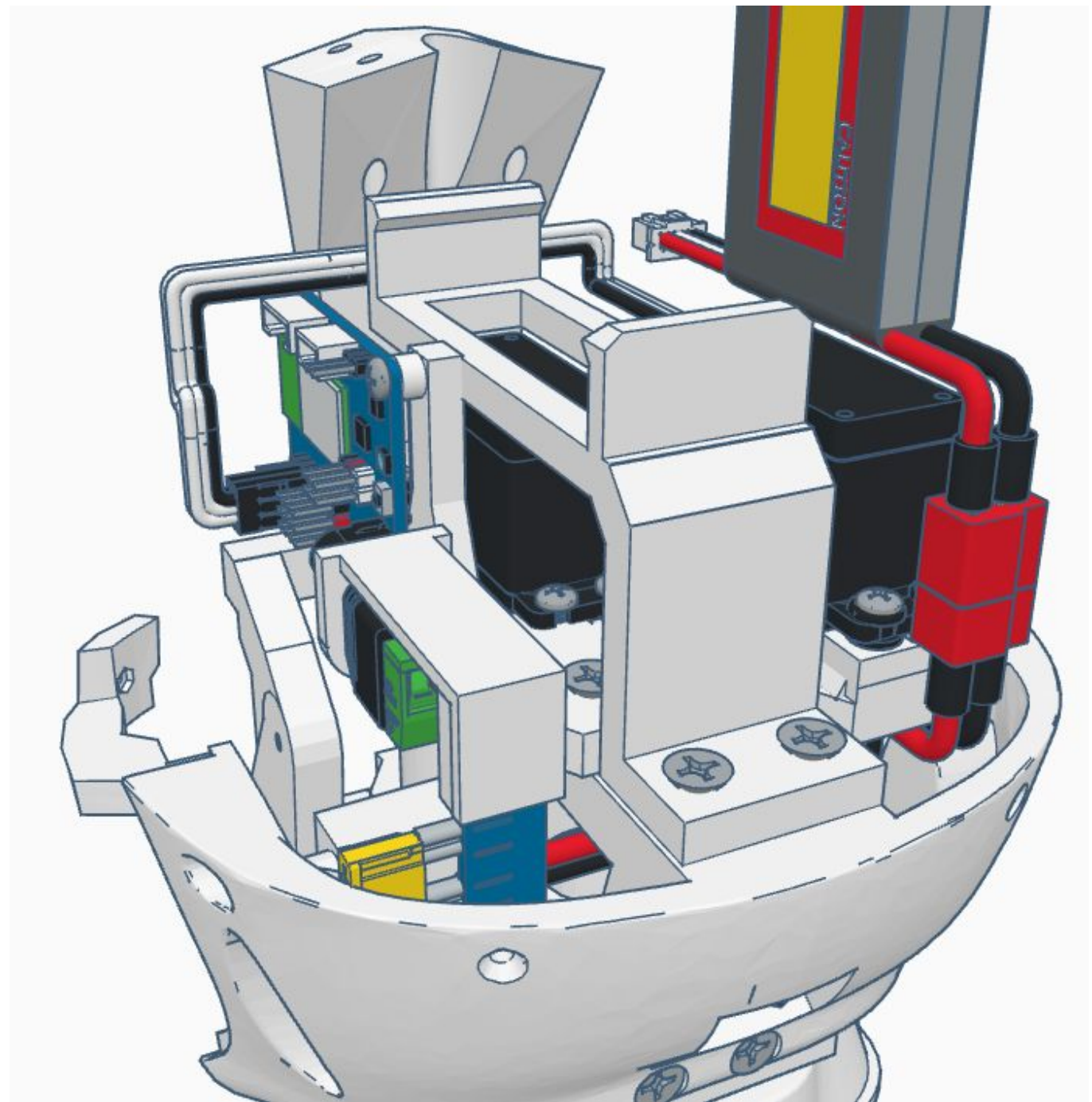
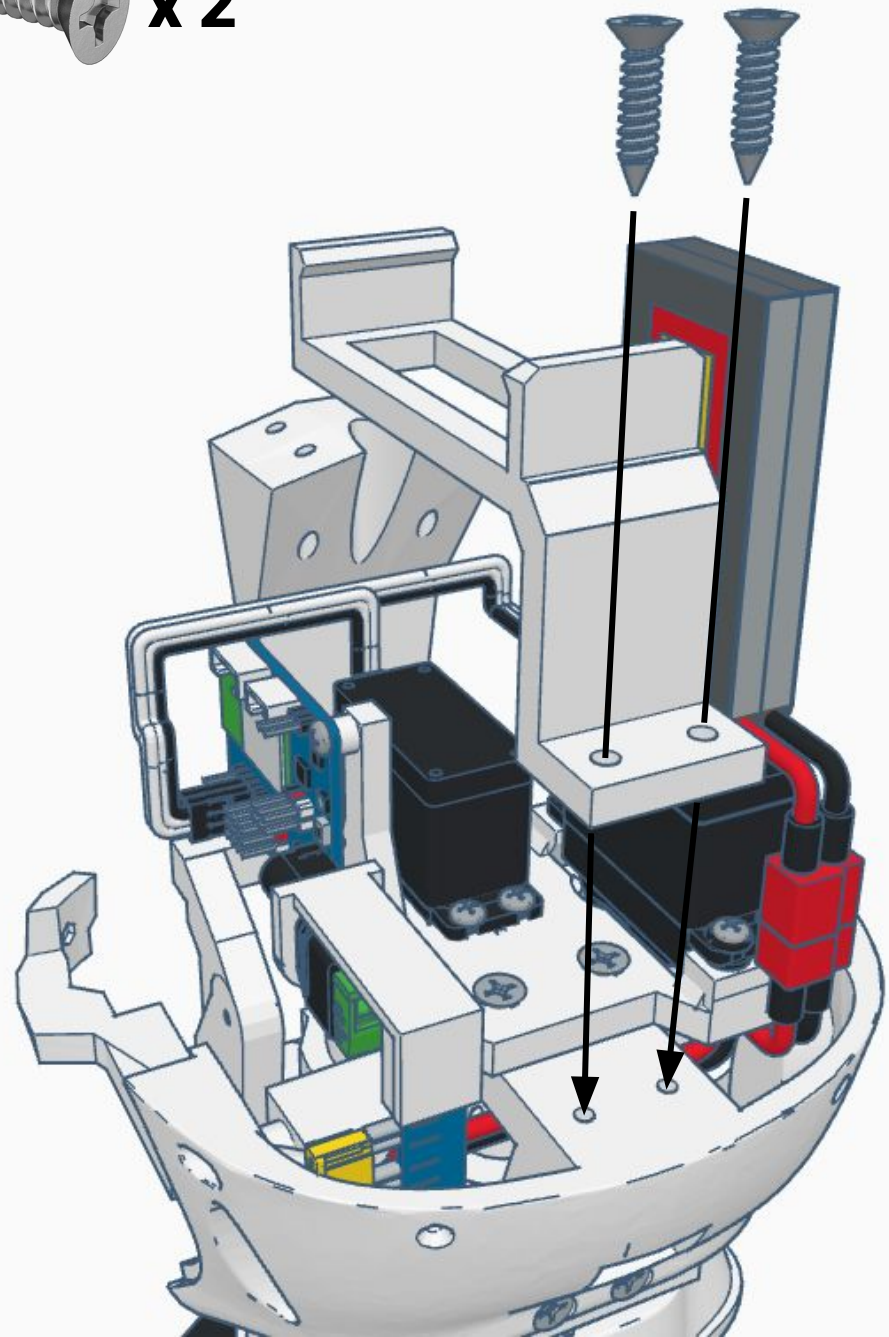


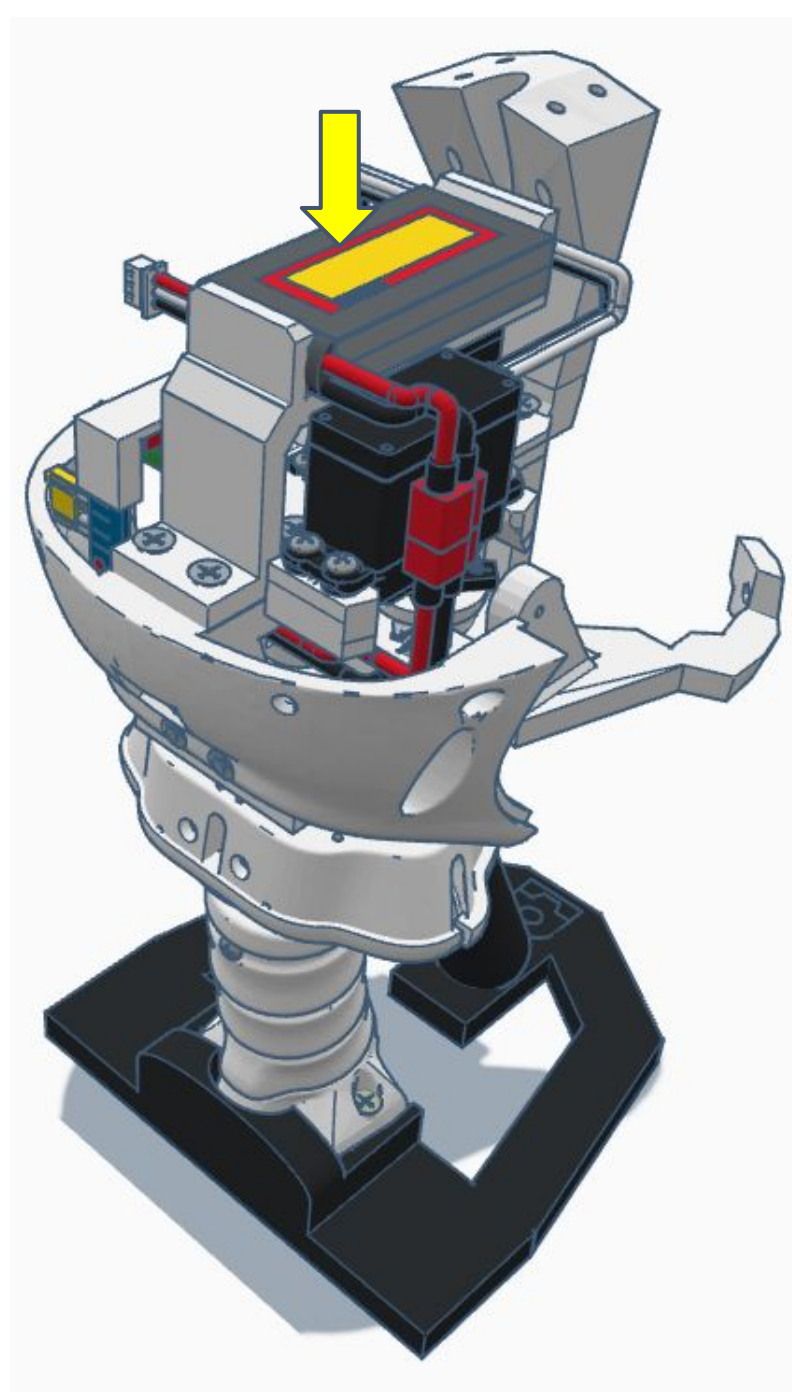
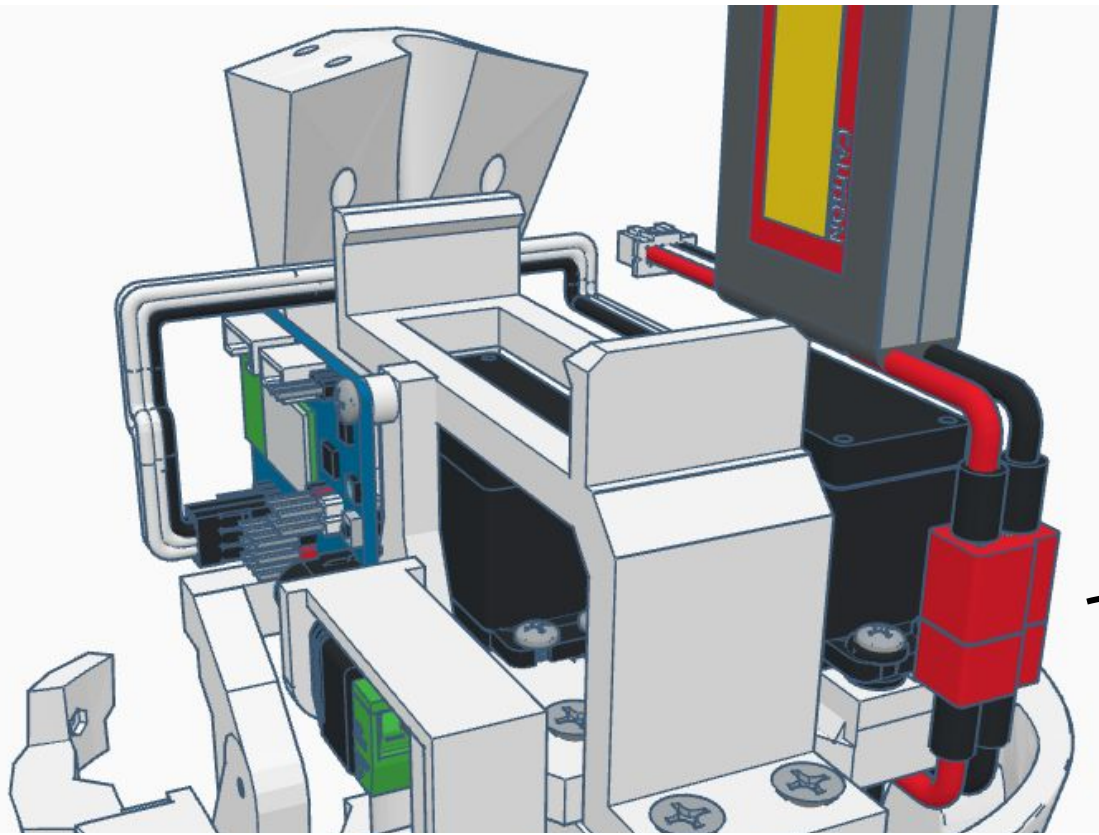


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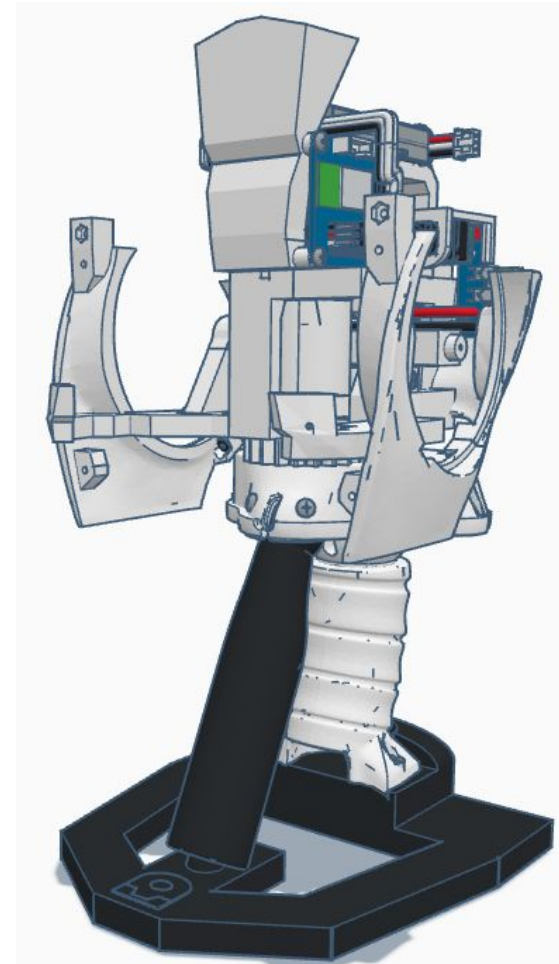
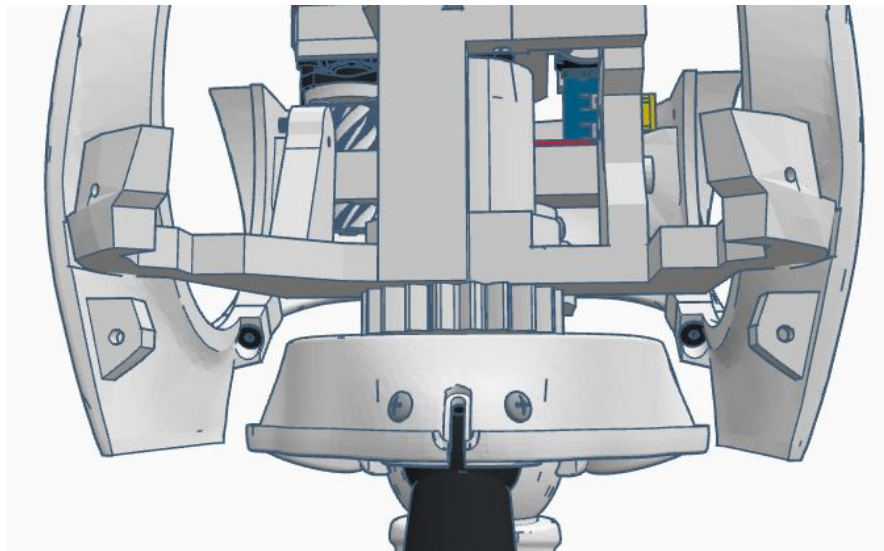
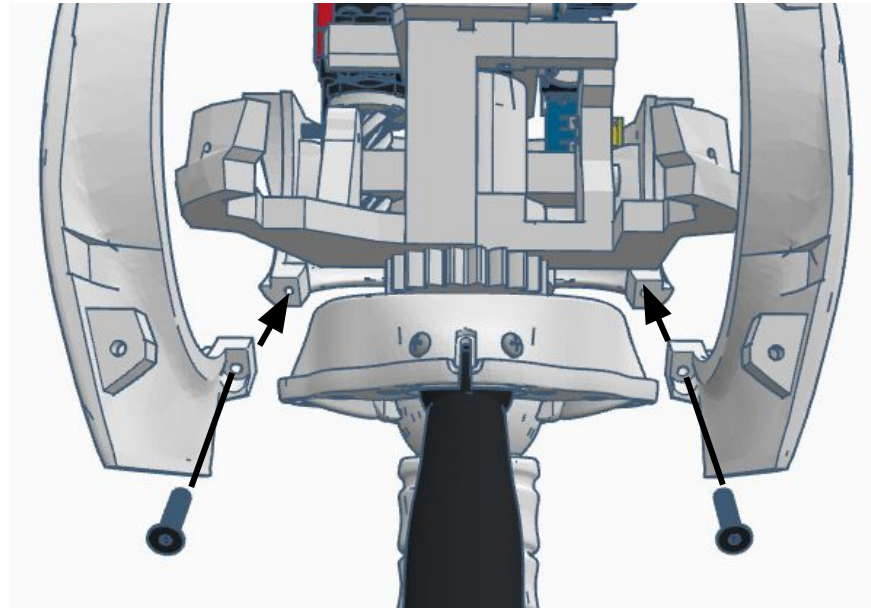
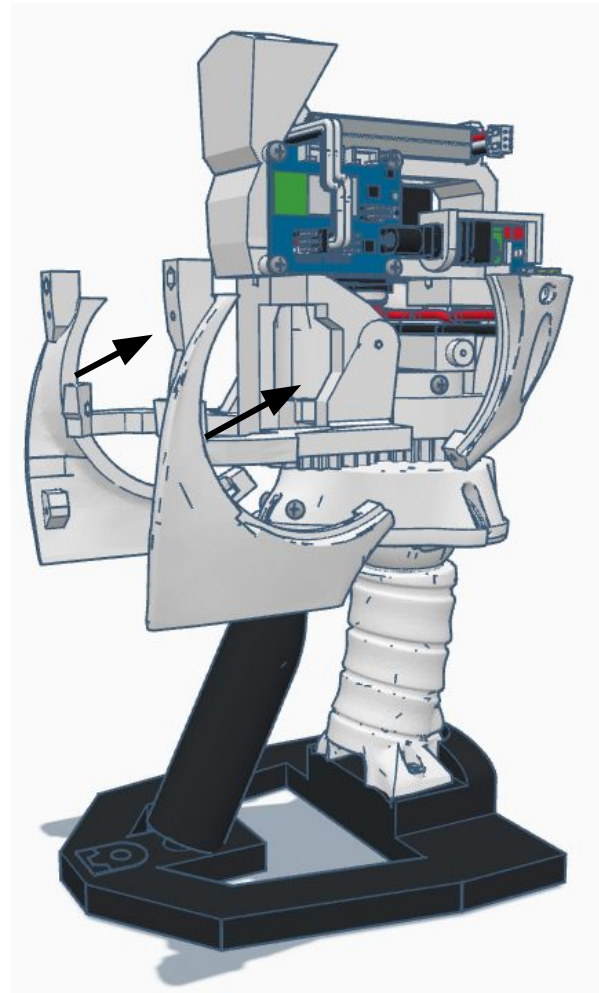



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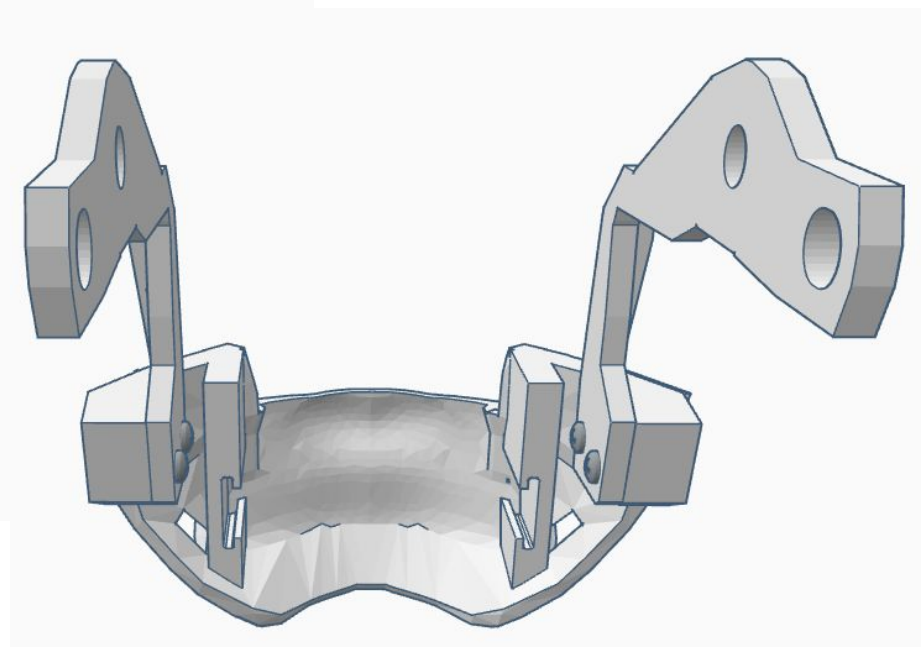
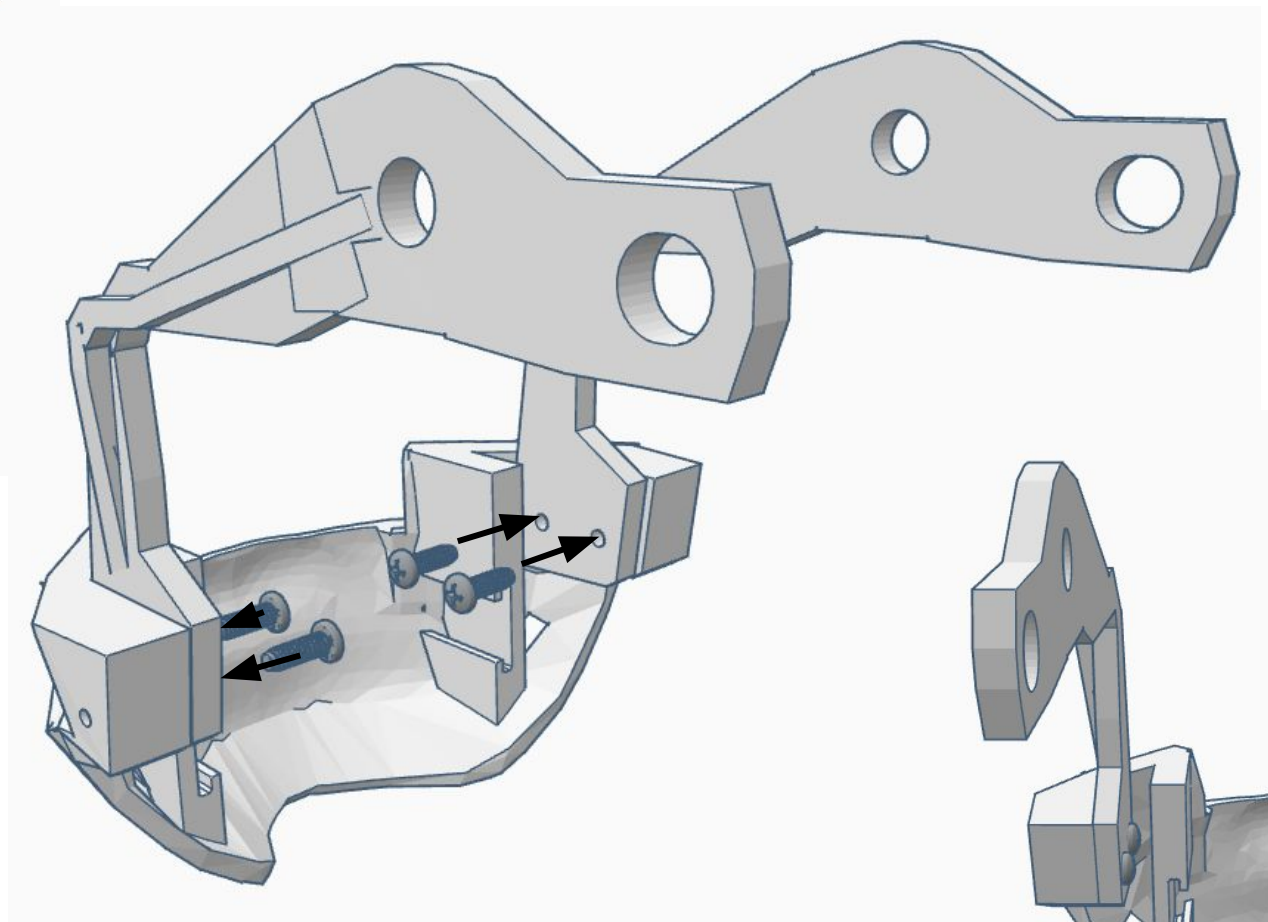
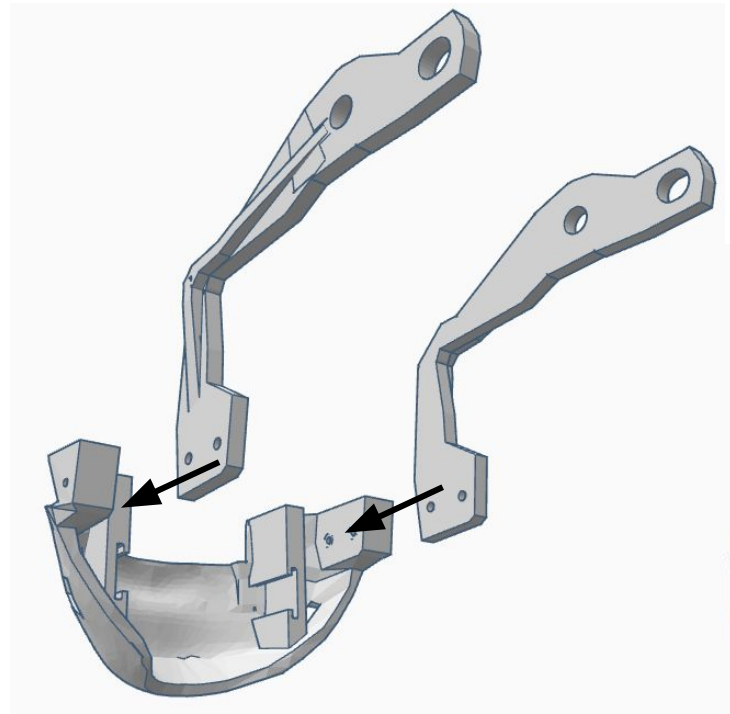


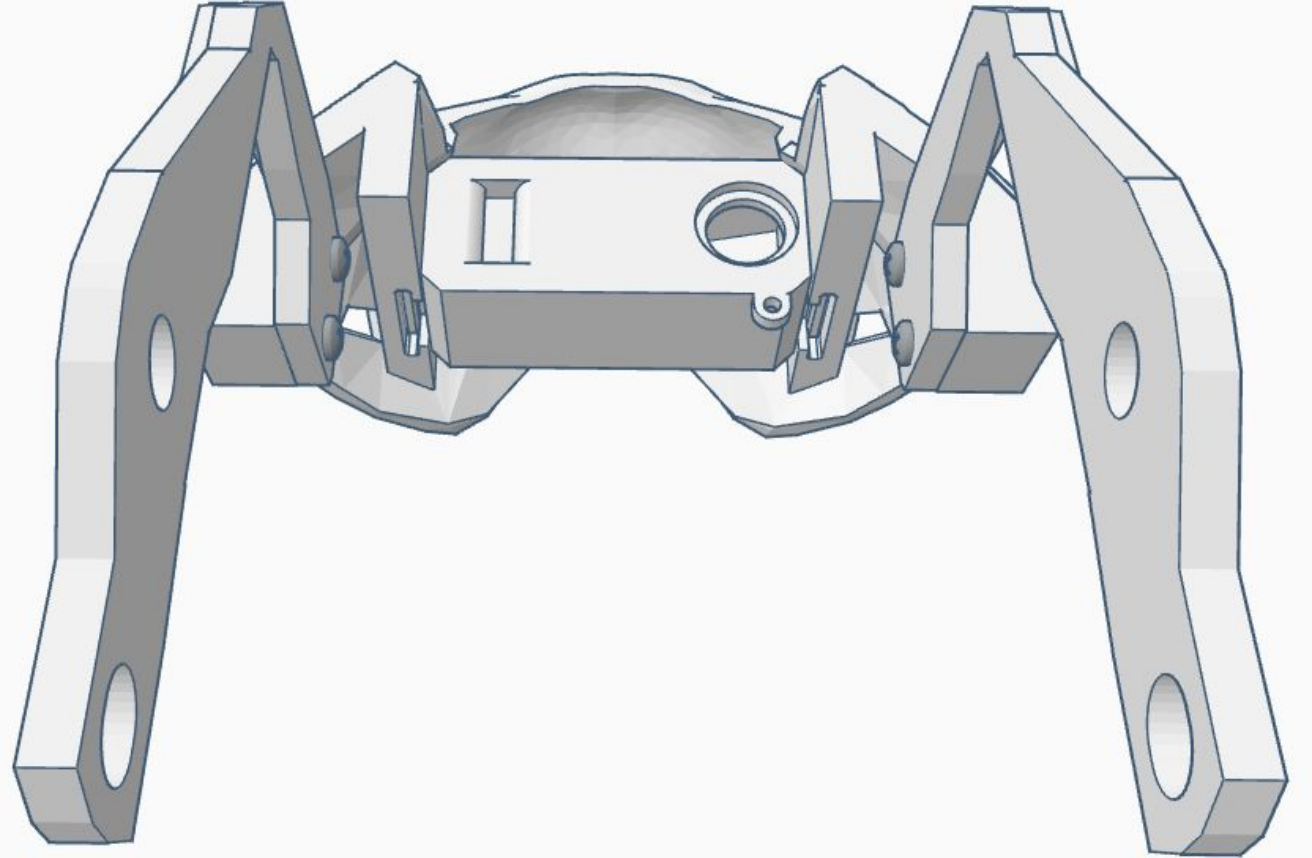
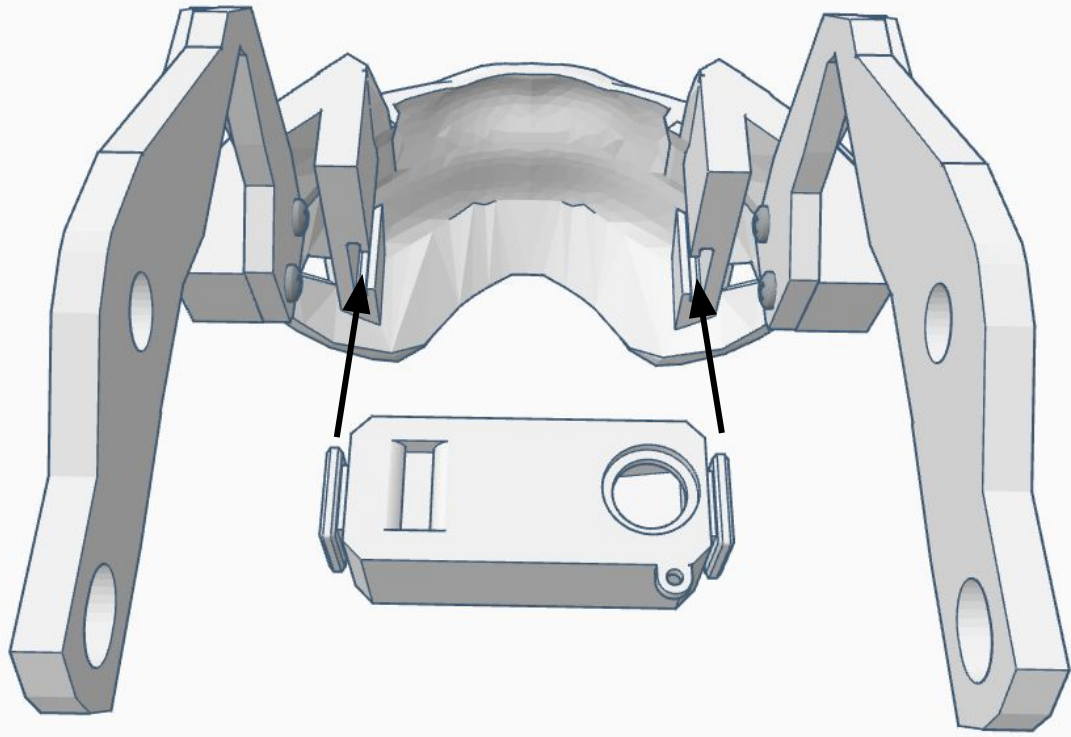


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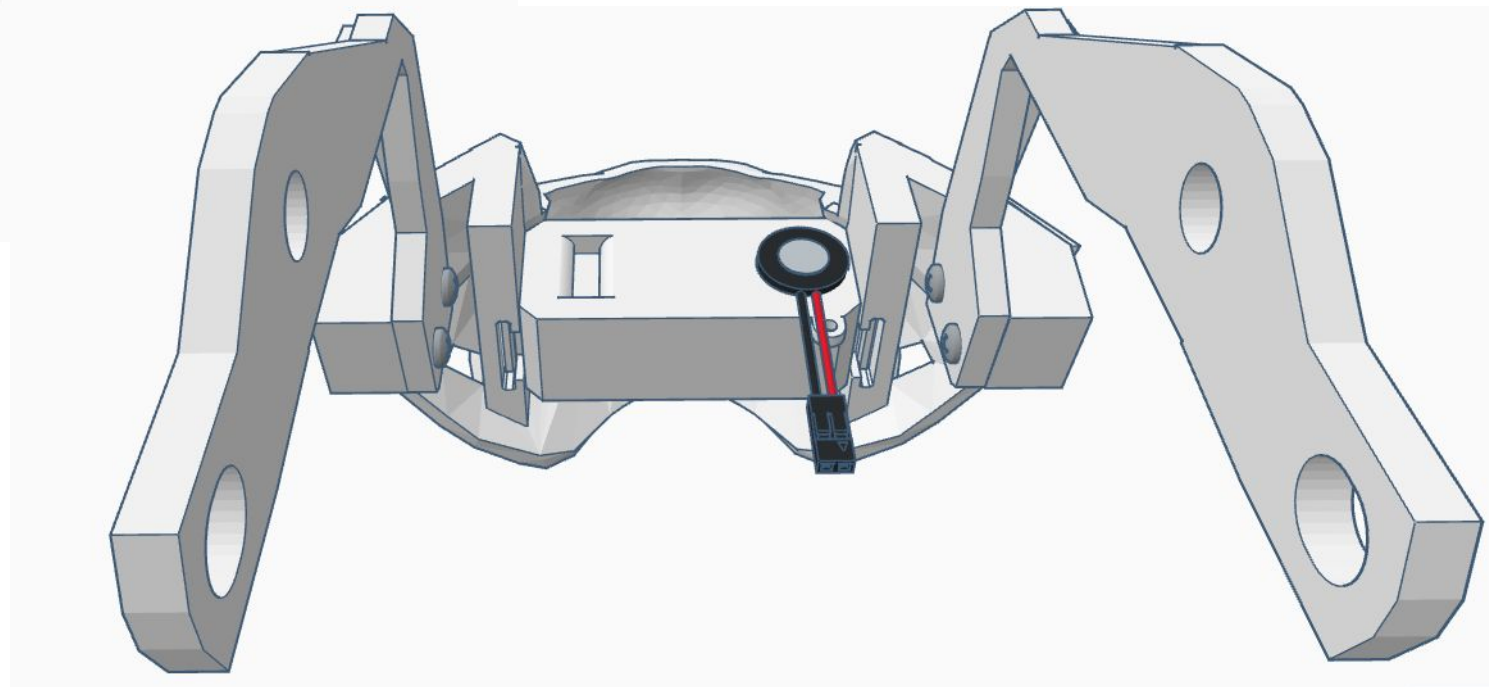
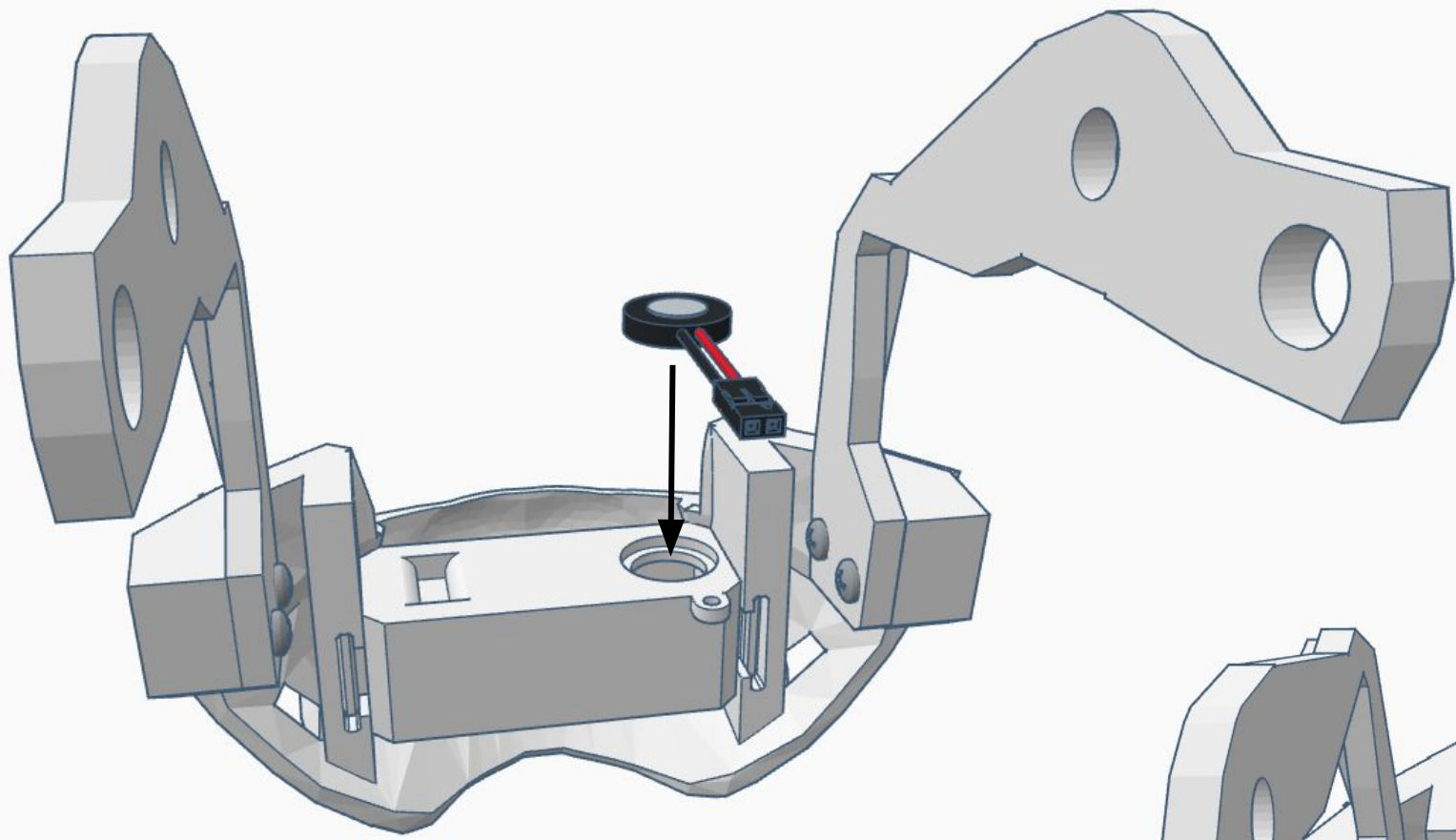


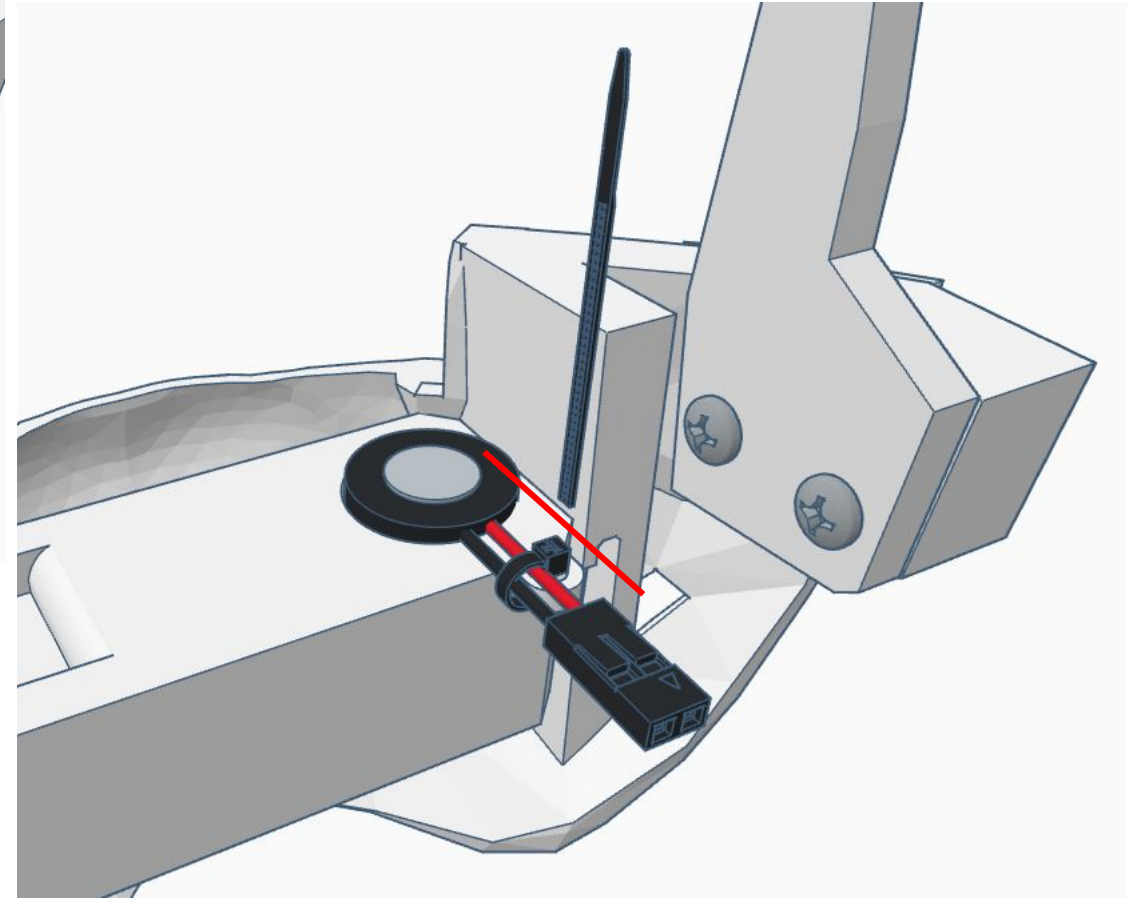
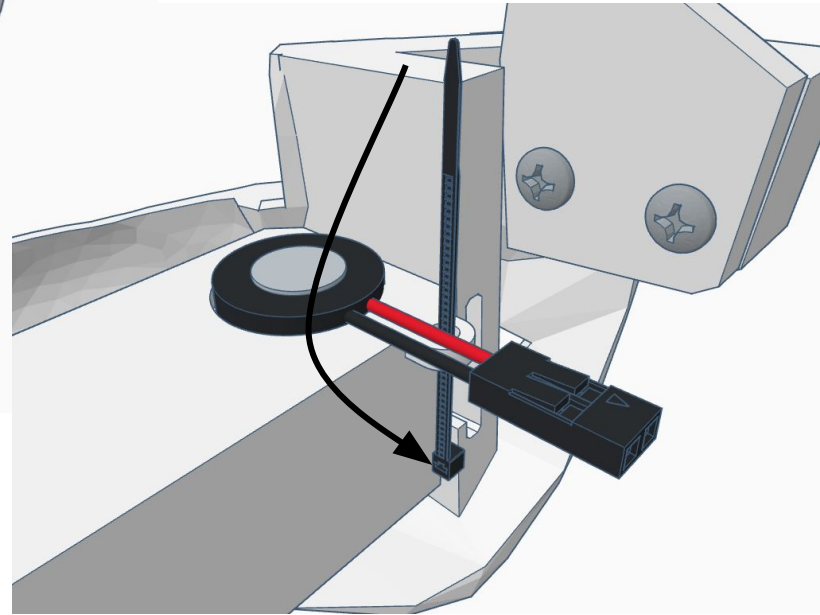
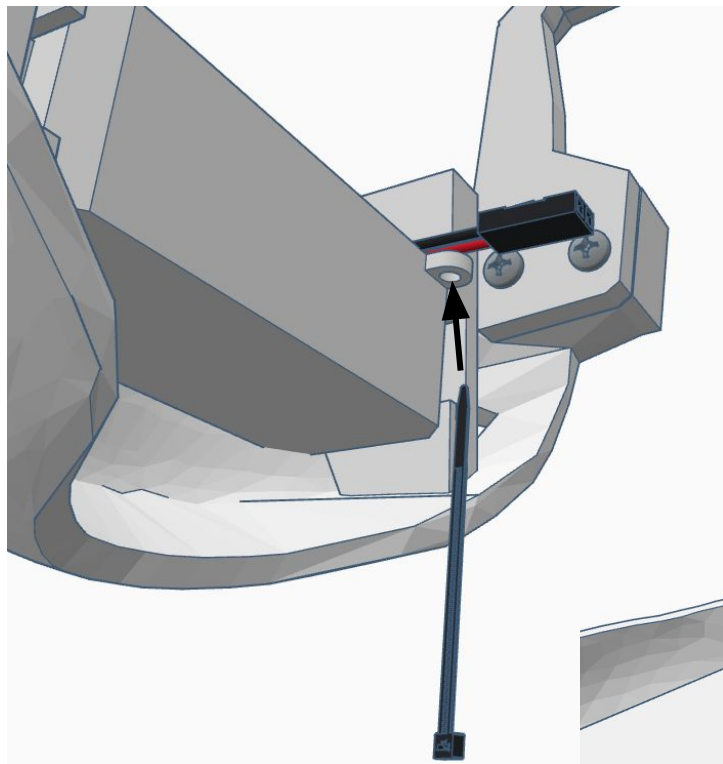
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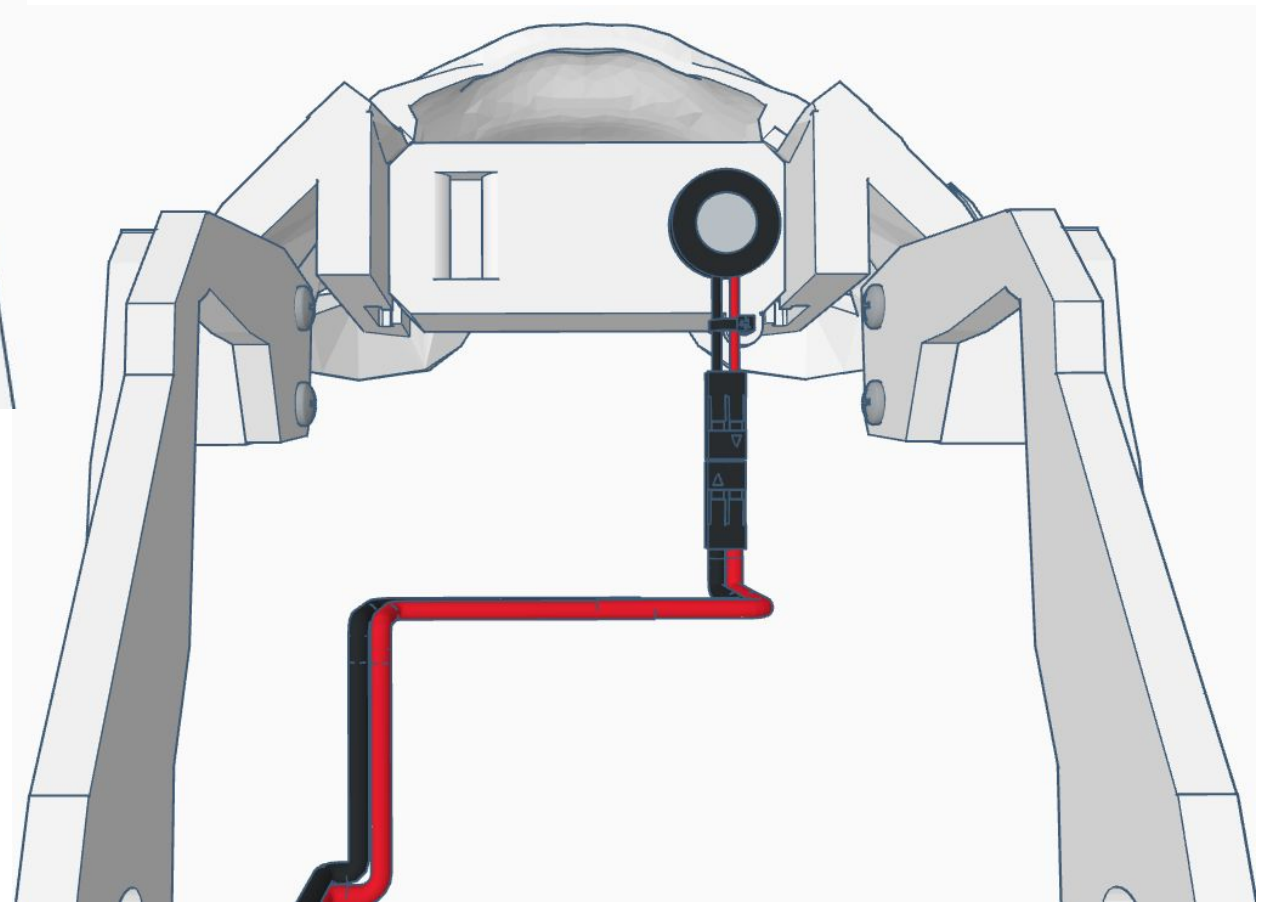
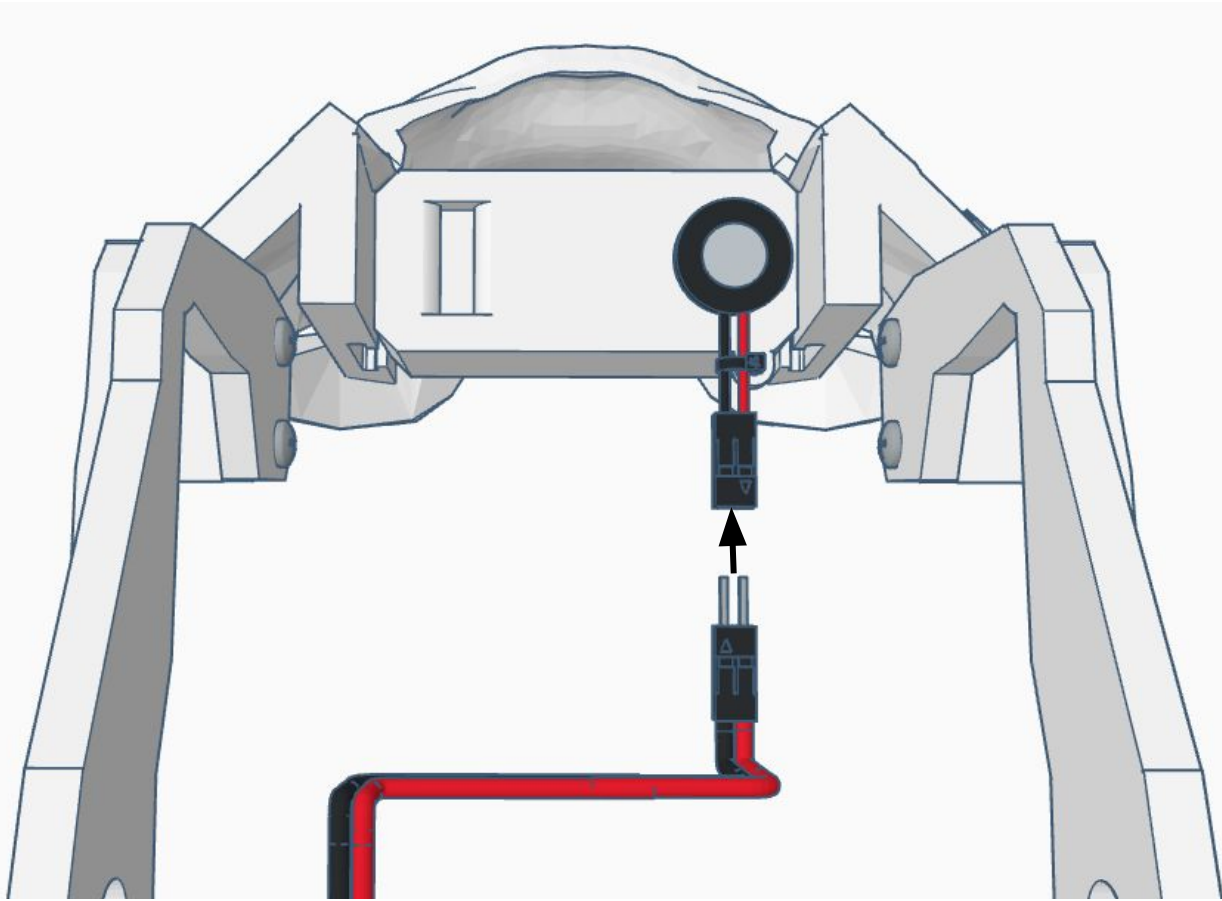


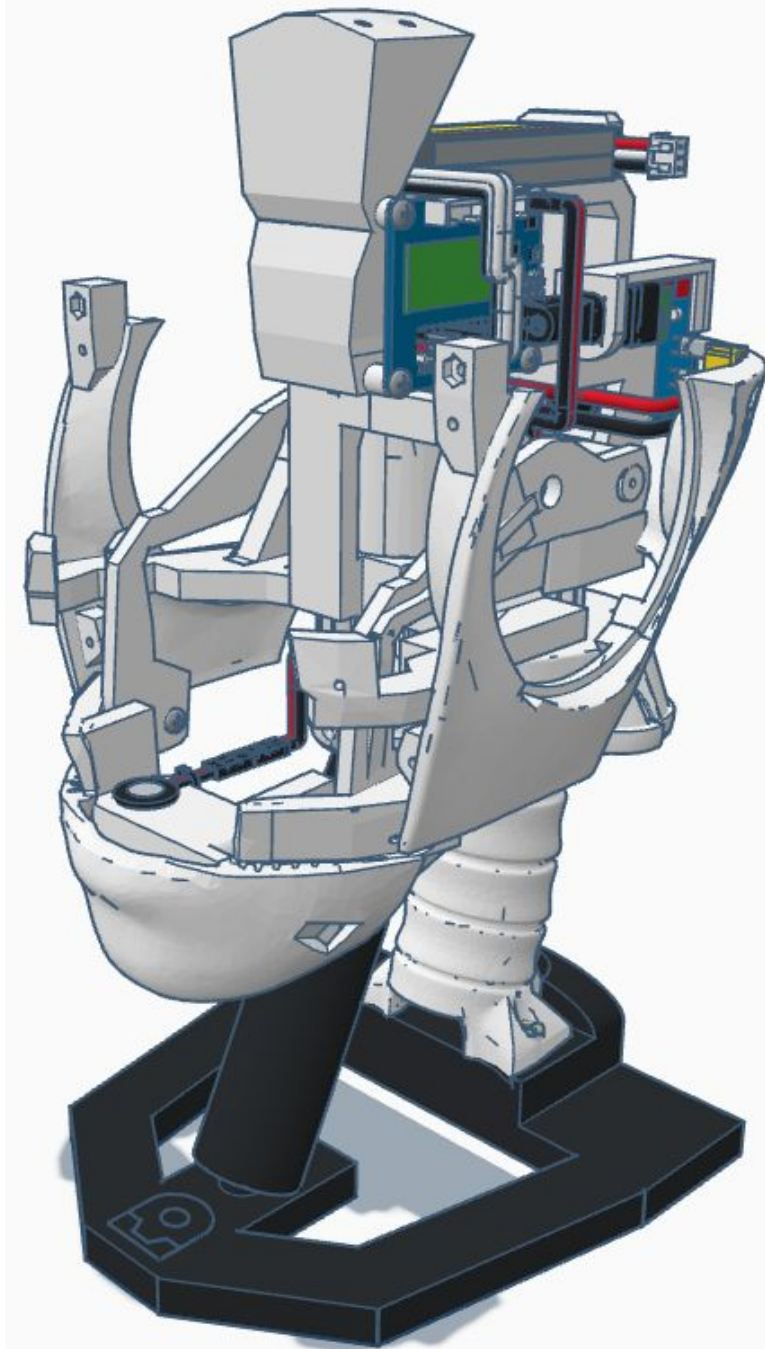
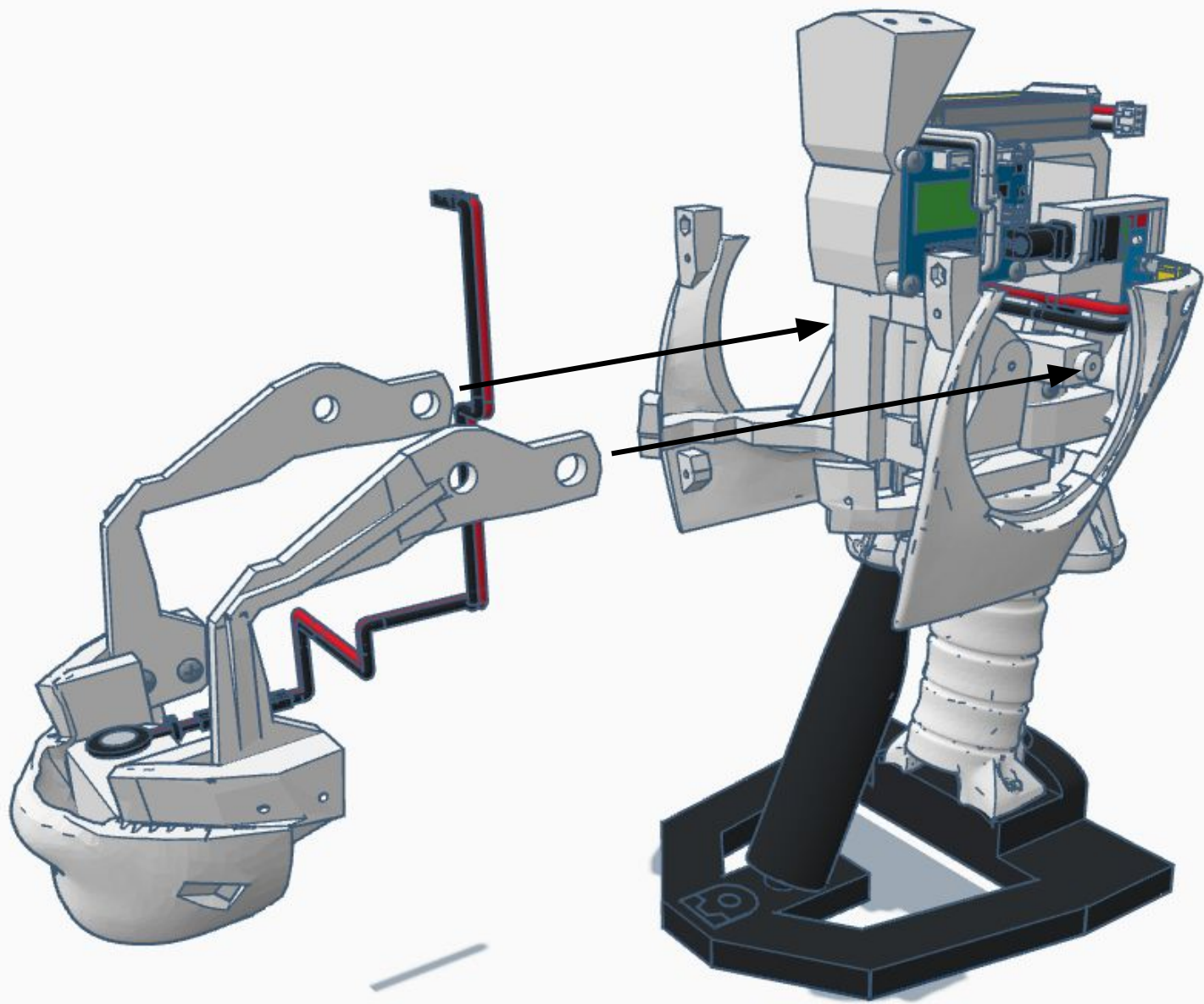




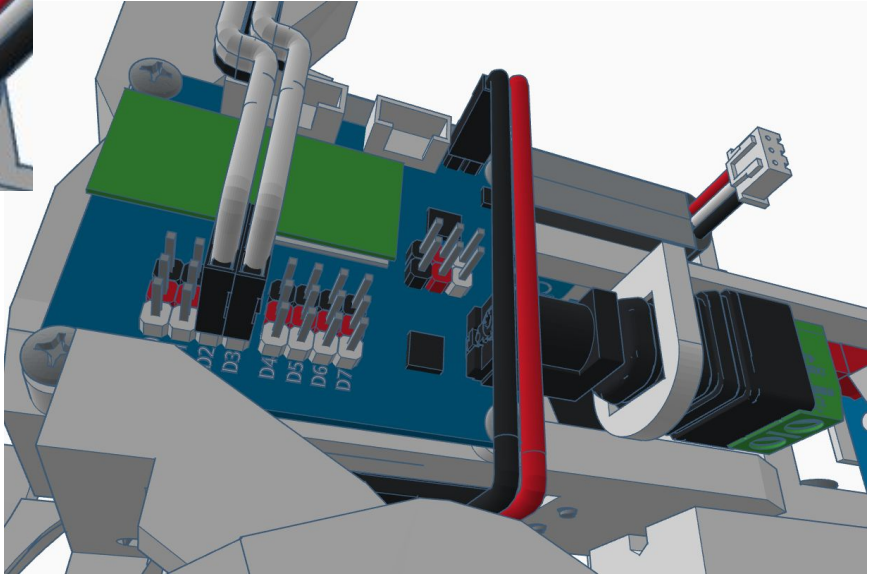
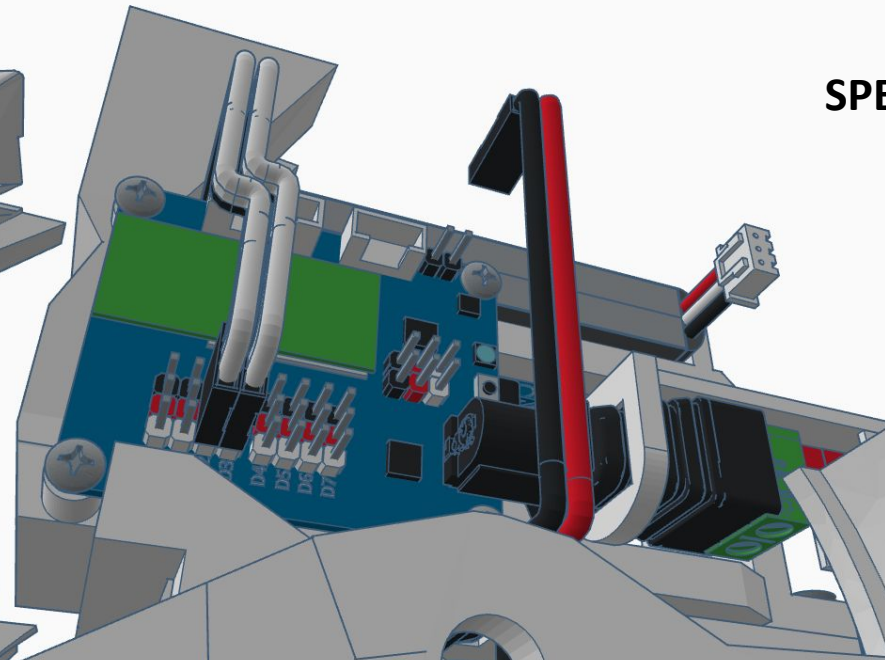




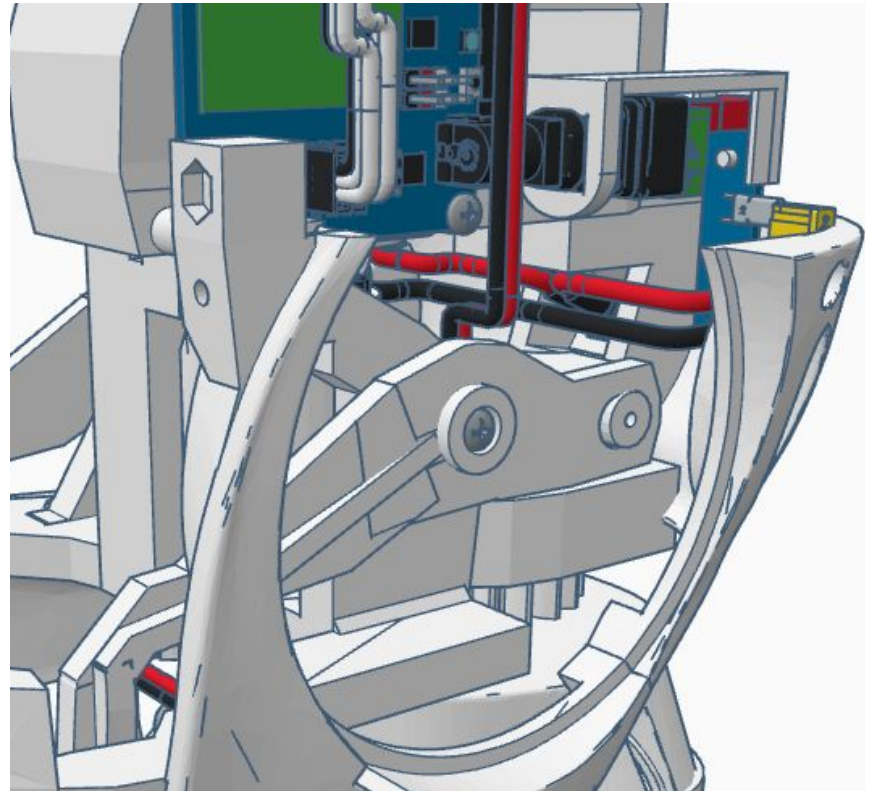
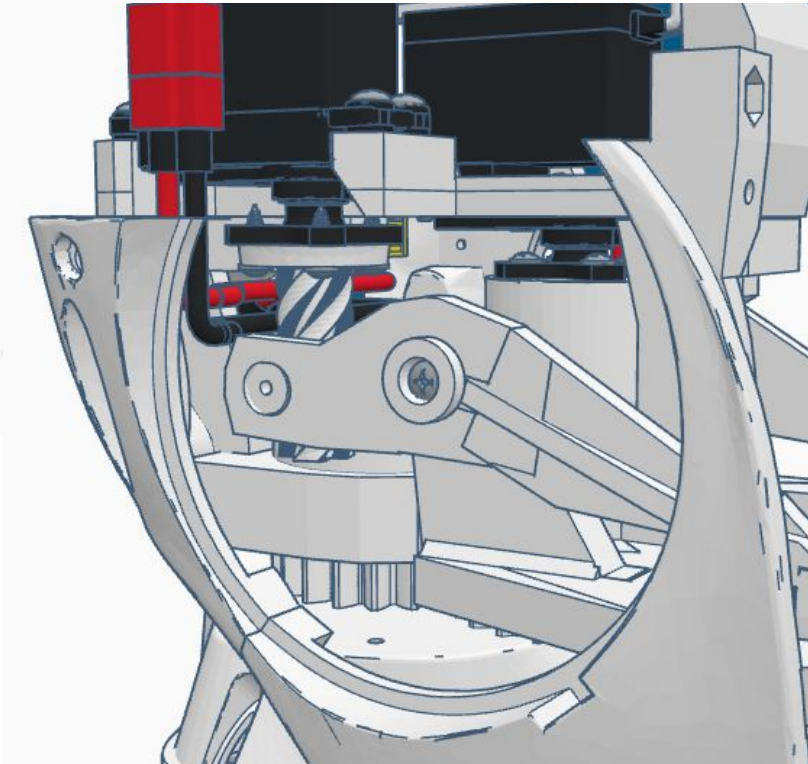
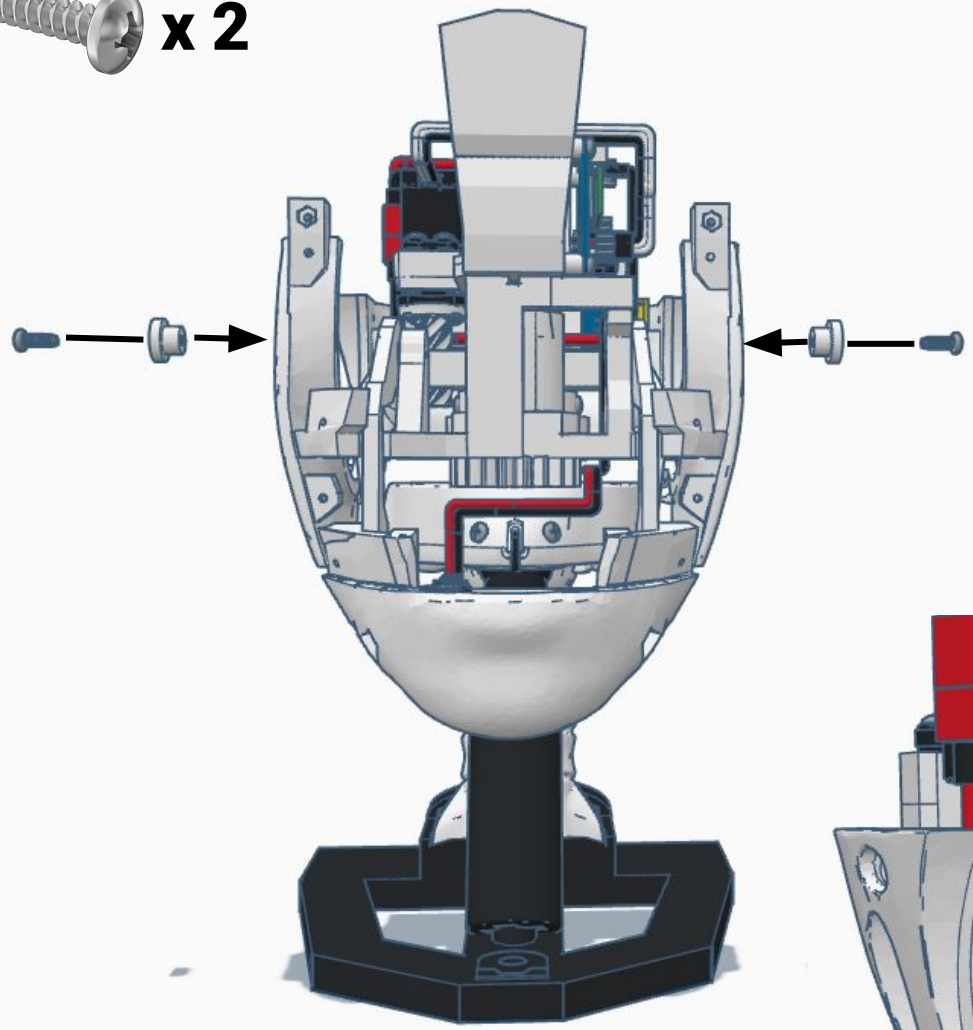




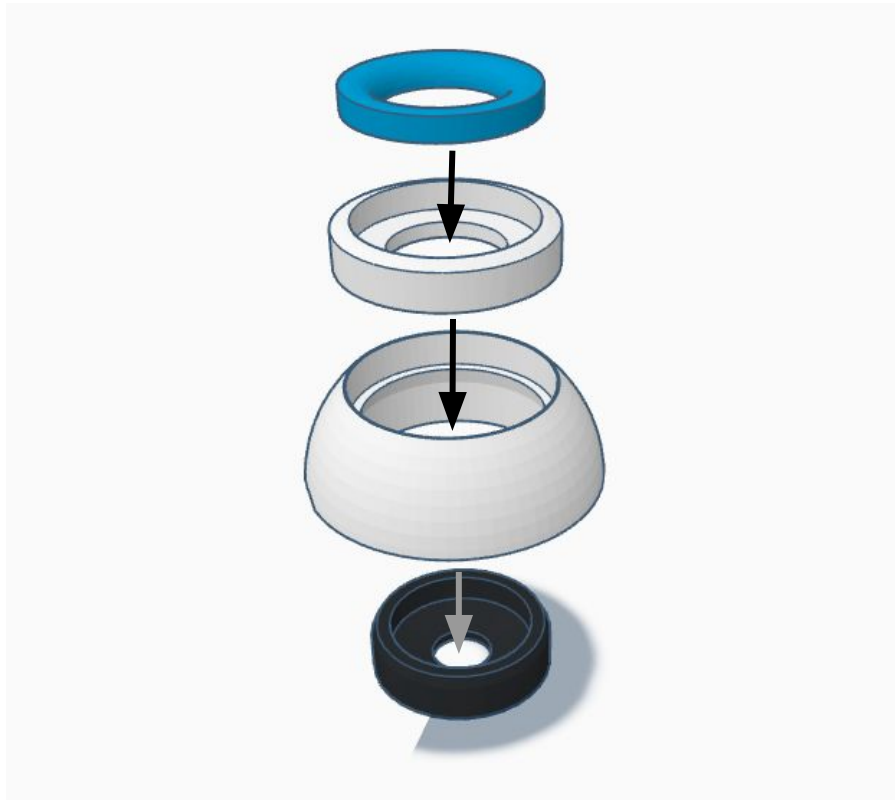
SPEAKER CABLE PLUGS INTO SPKR HEADER ON IOTINY



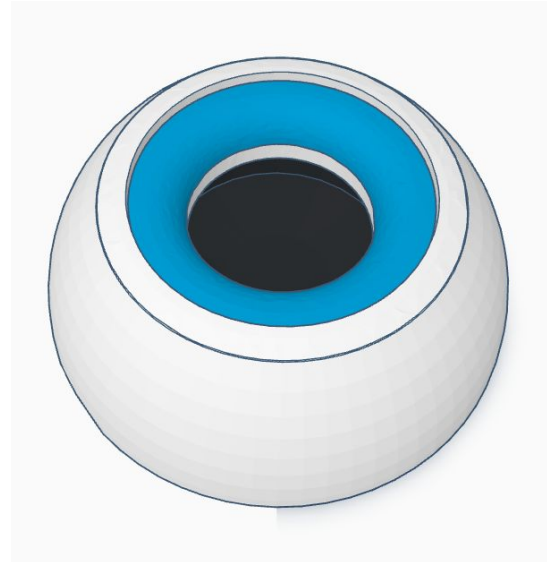
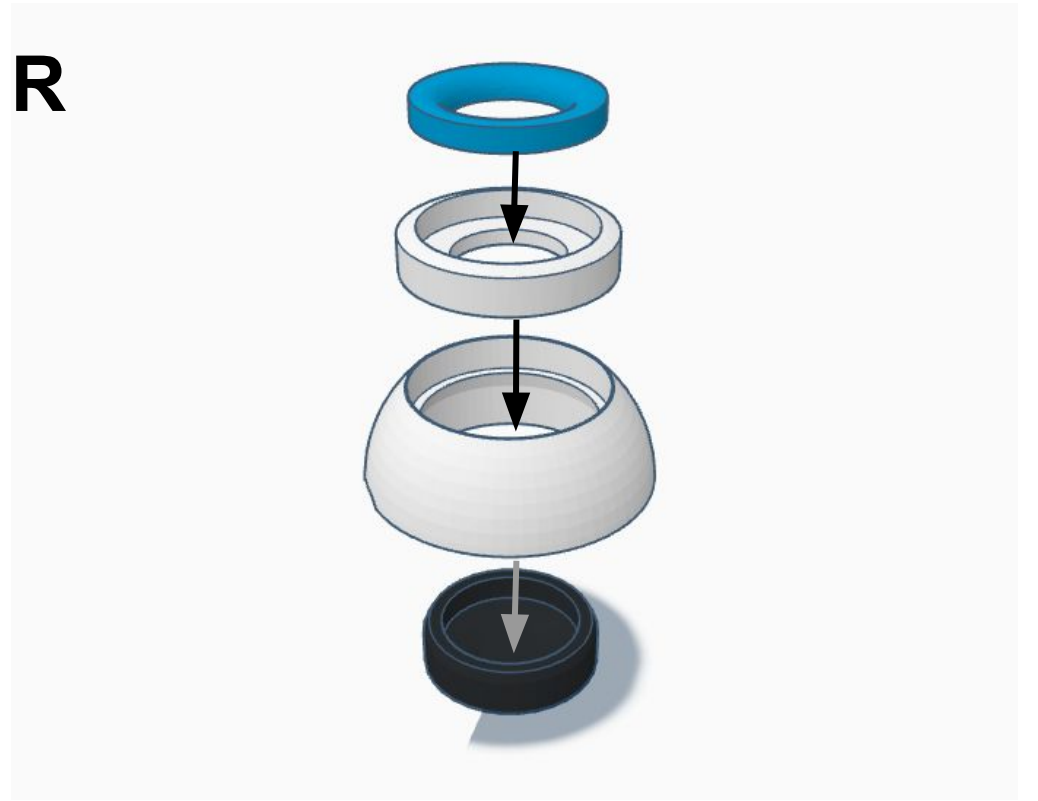
 x 2



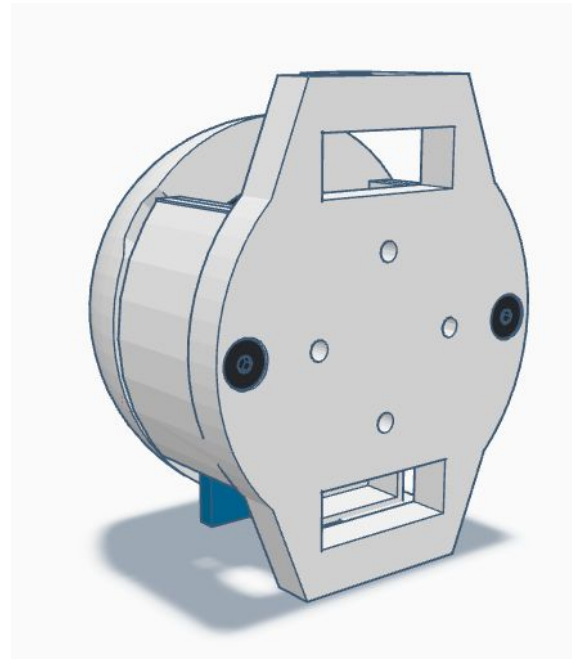
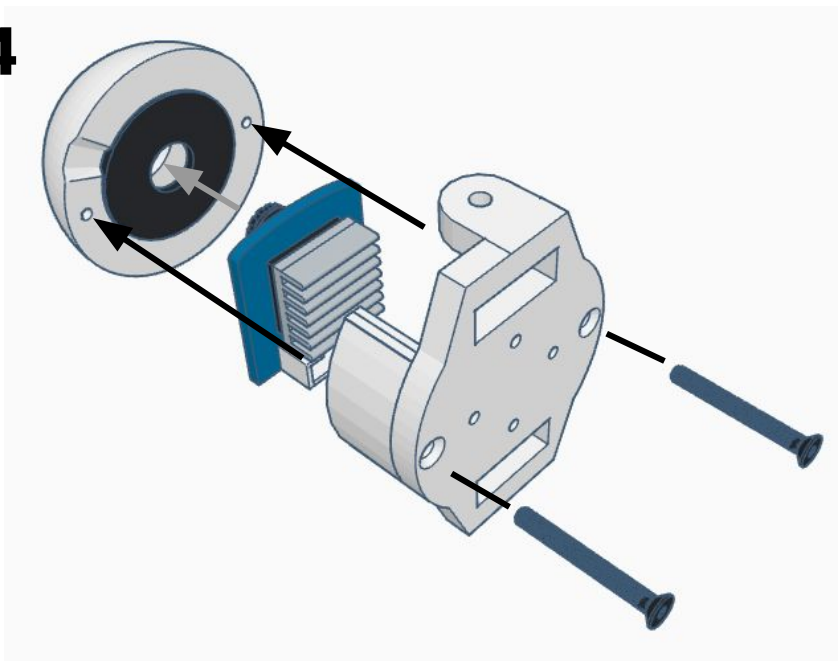
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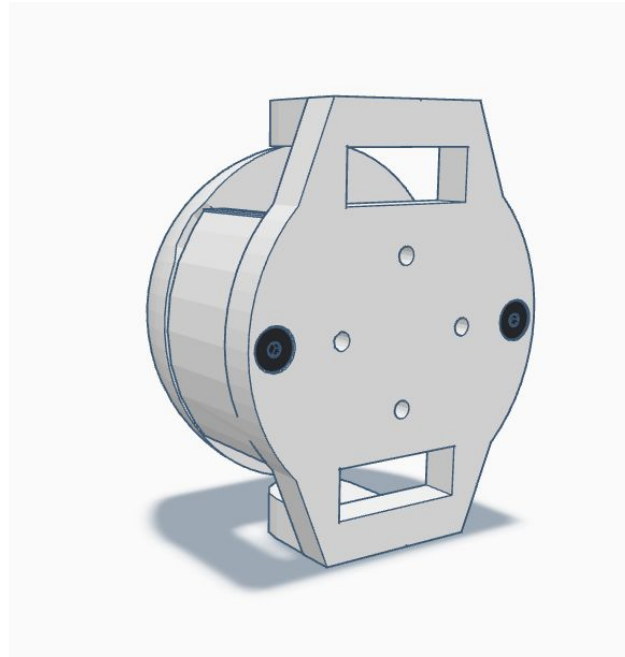
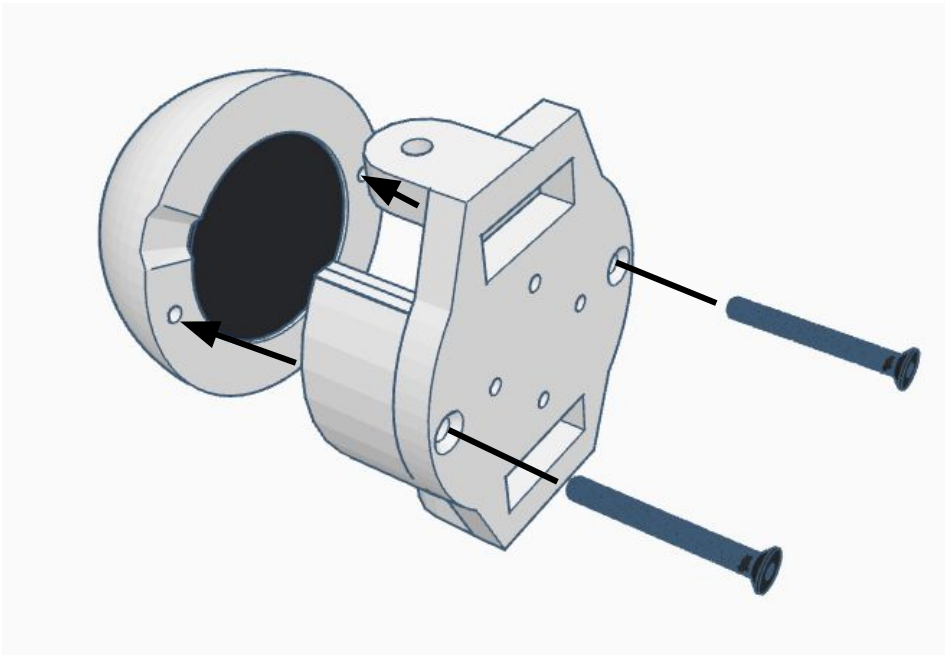


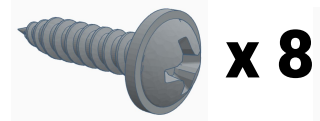
x 4



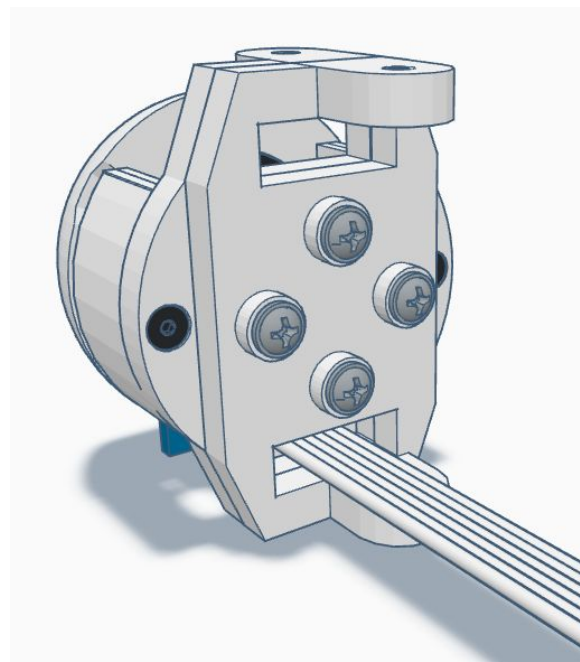
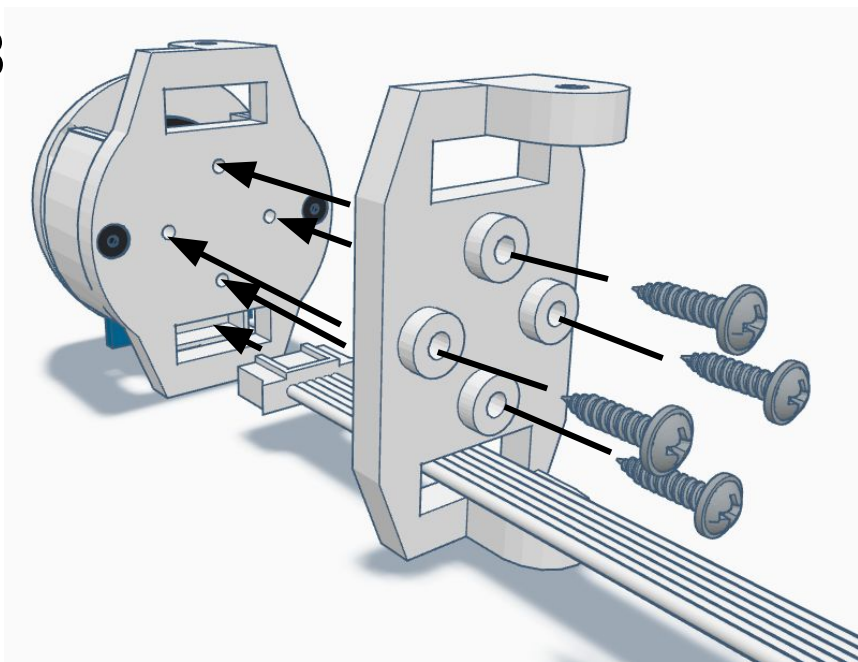
L

R

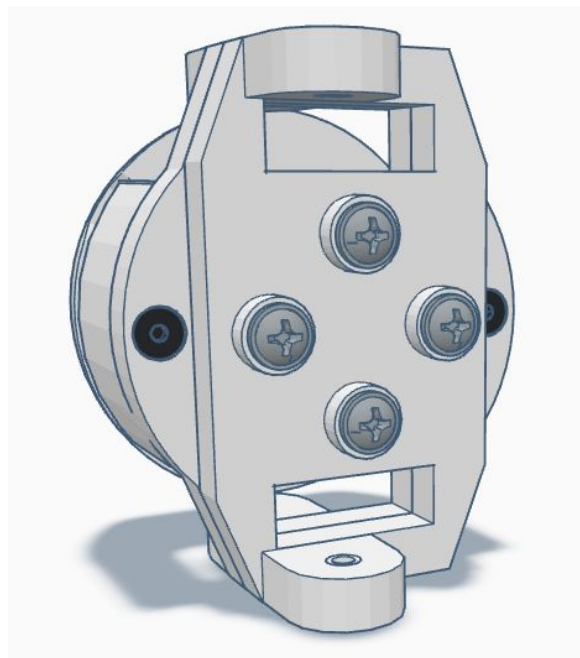
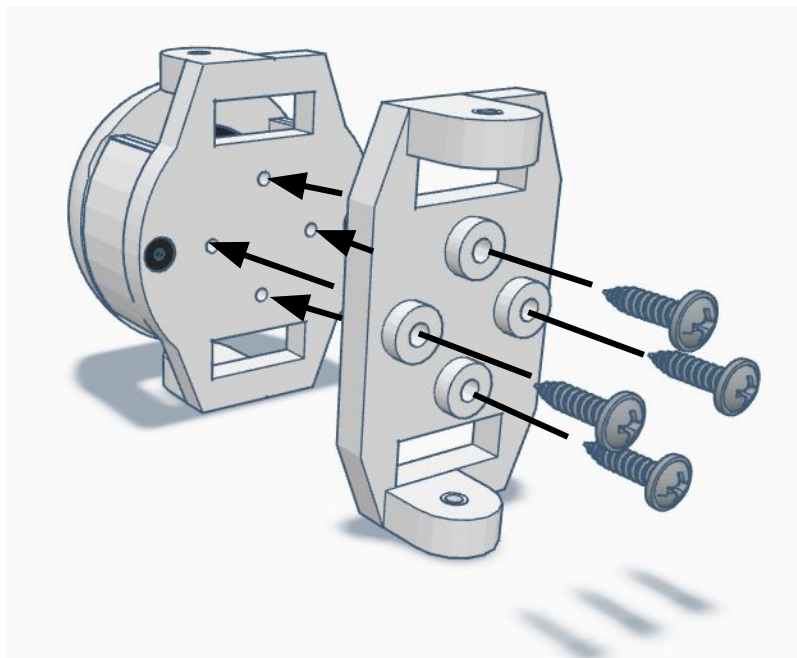


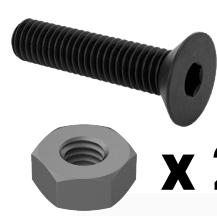


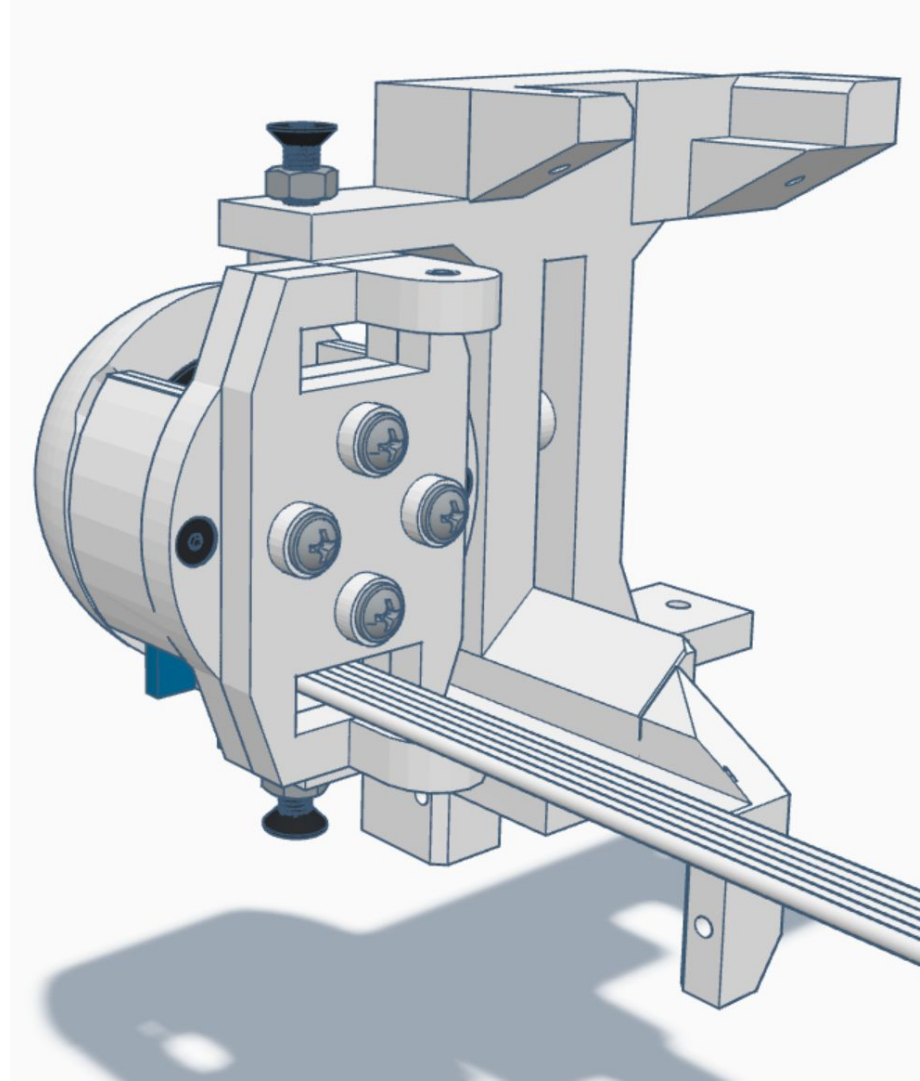
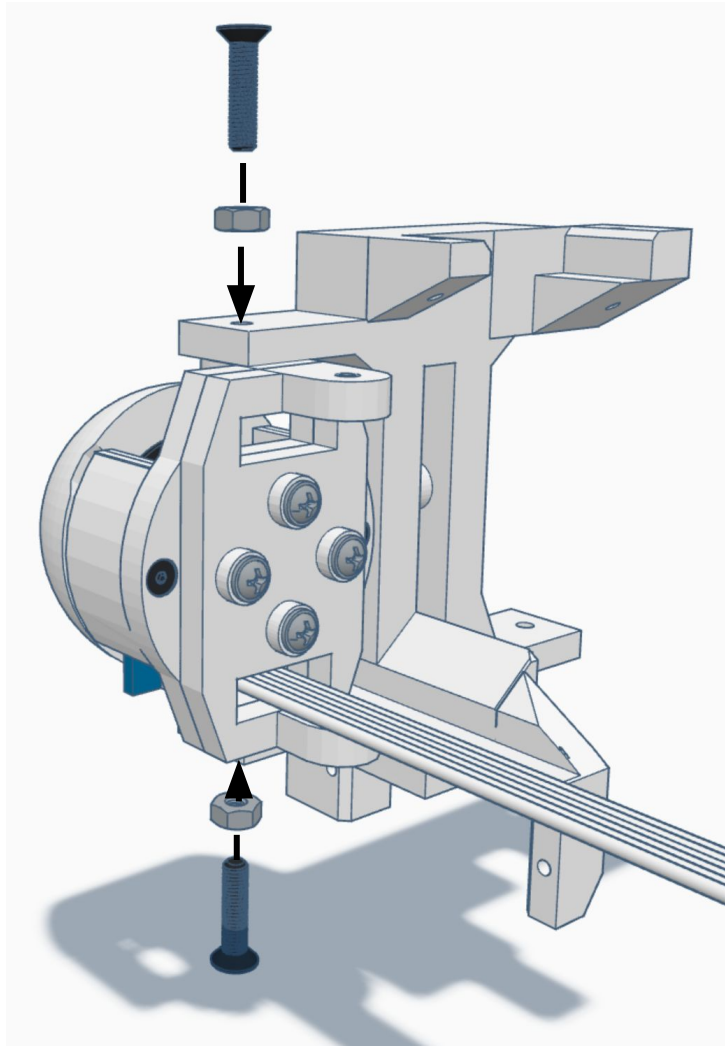
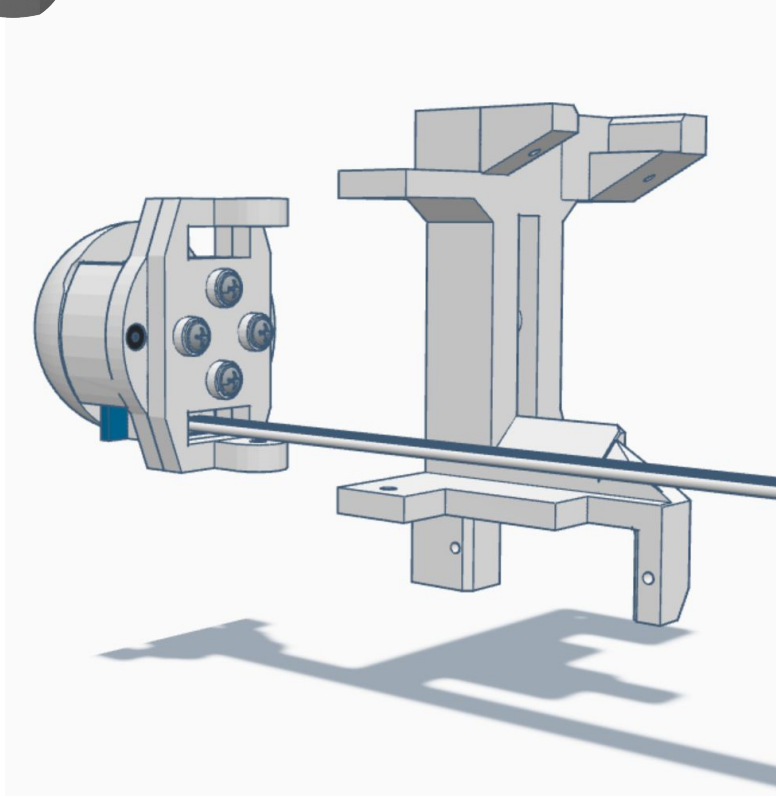
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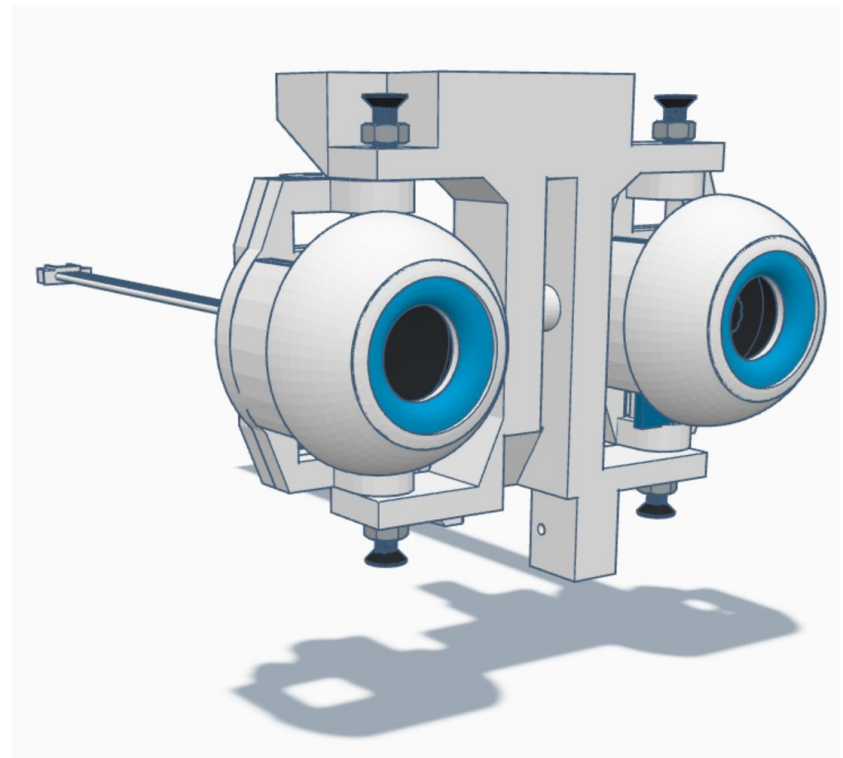
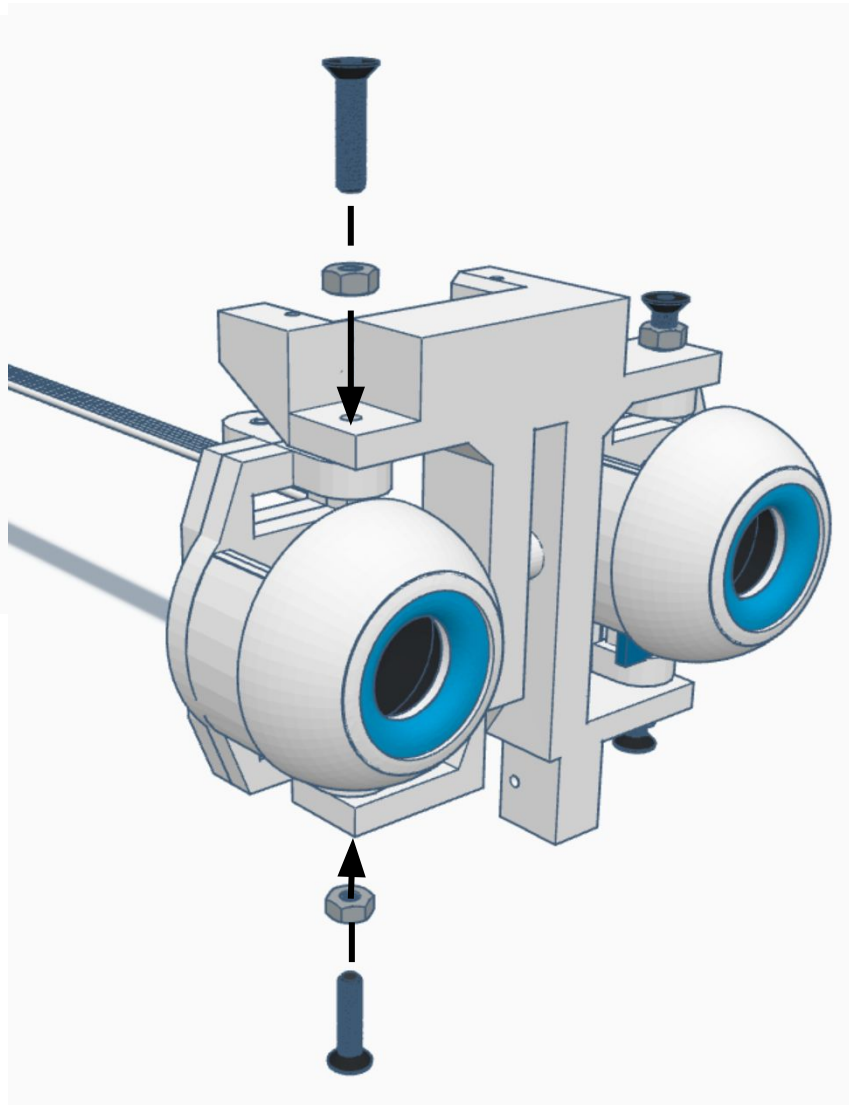
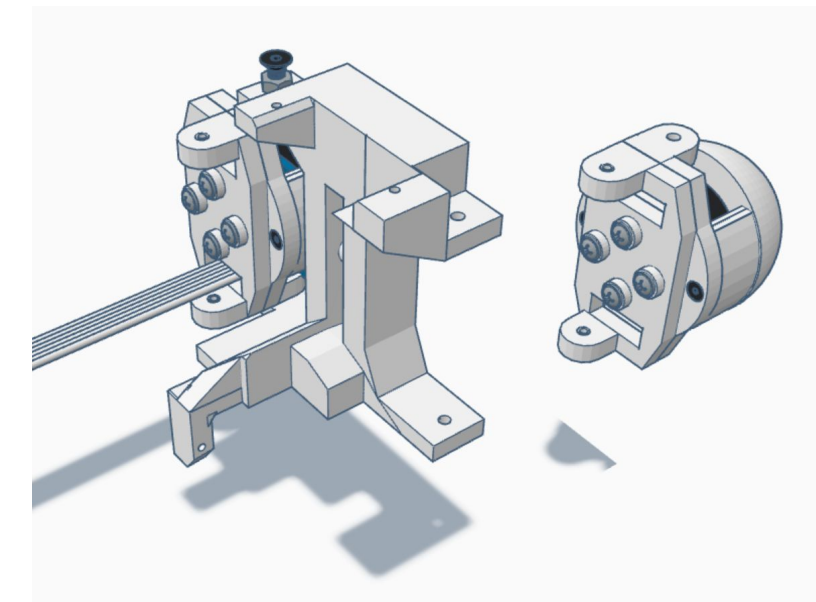


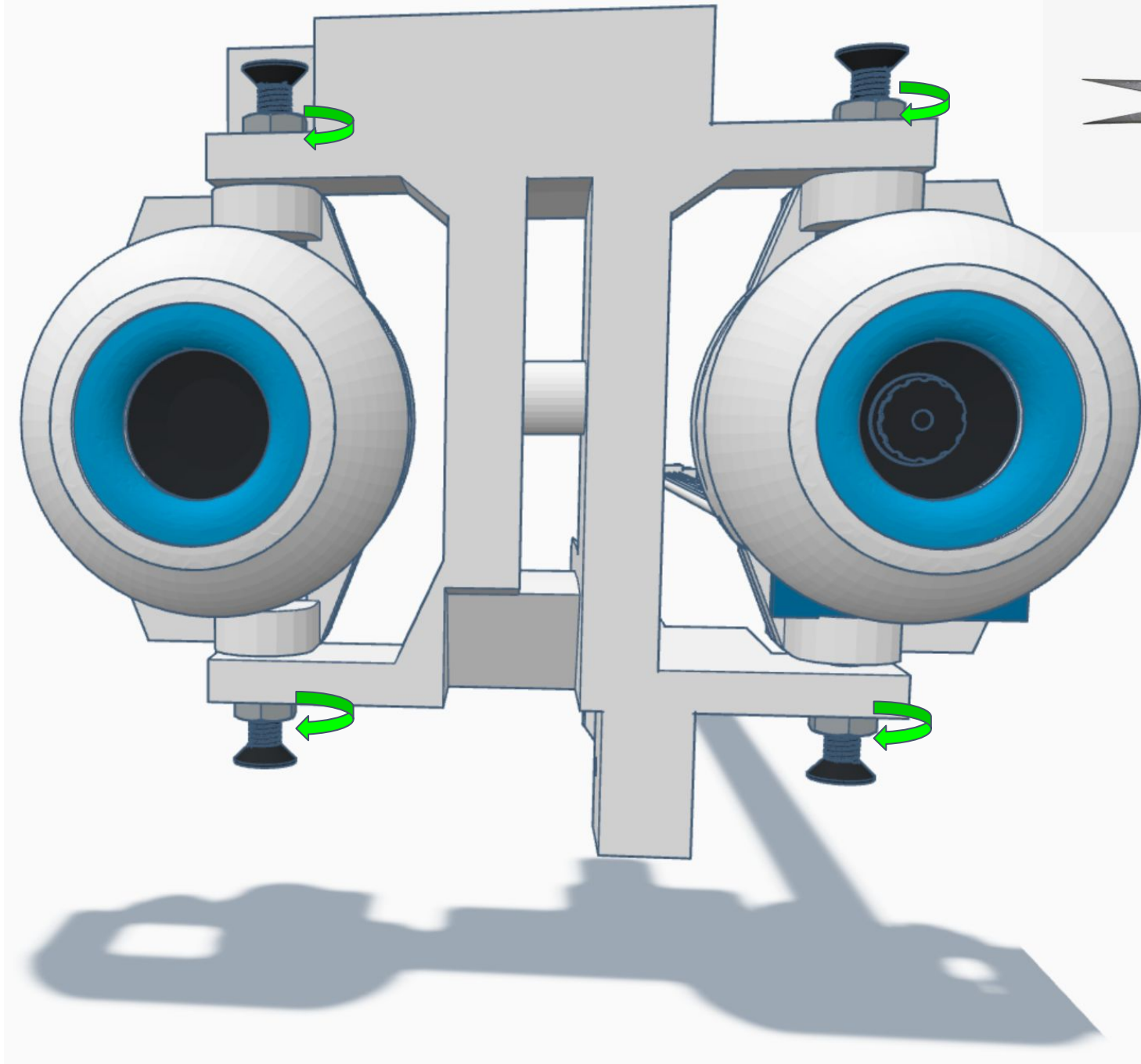
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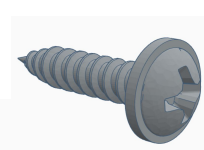


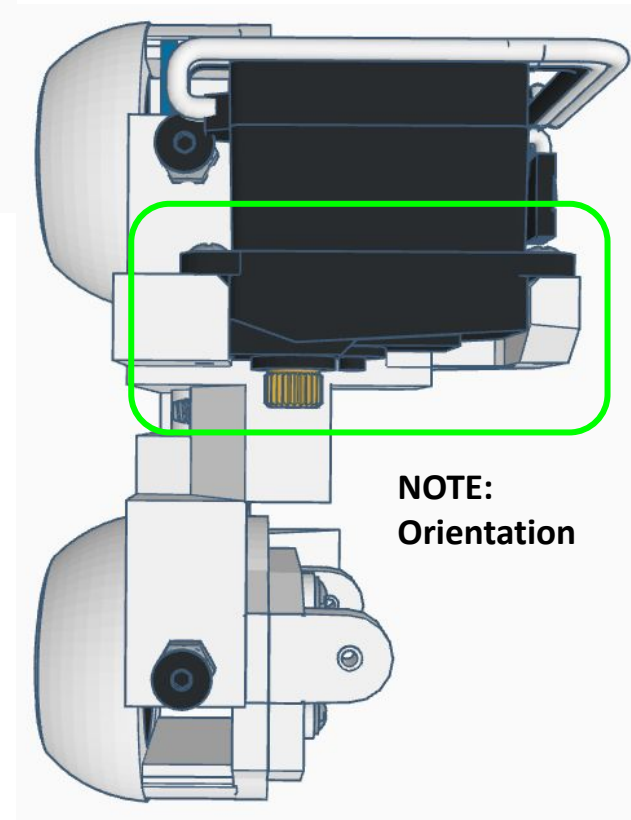
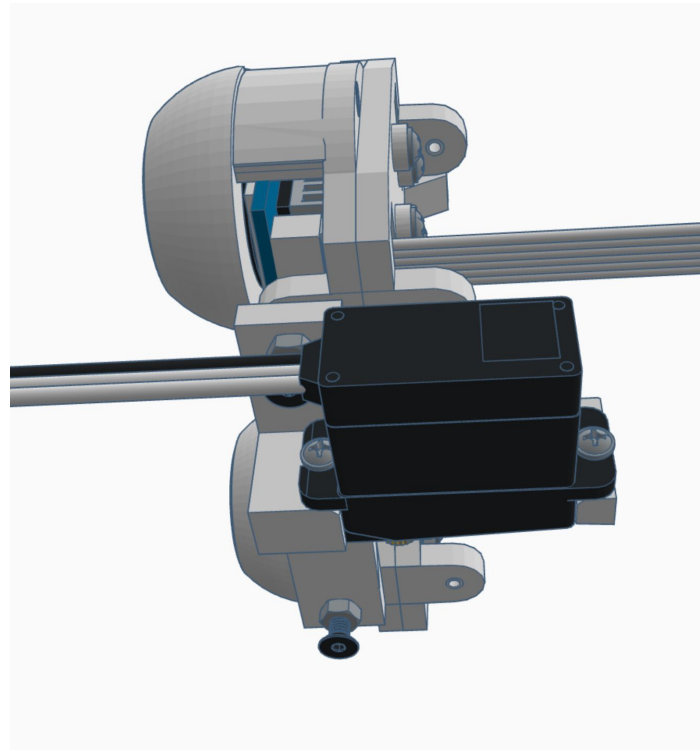
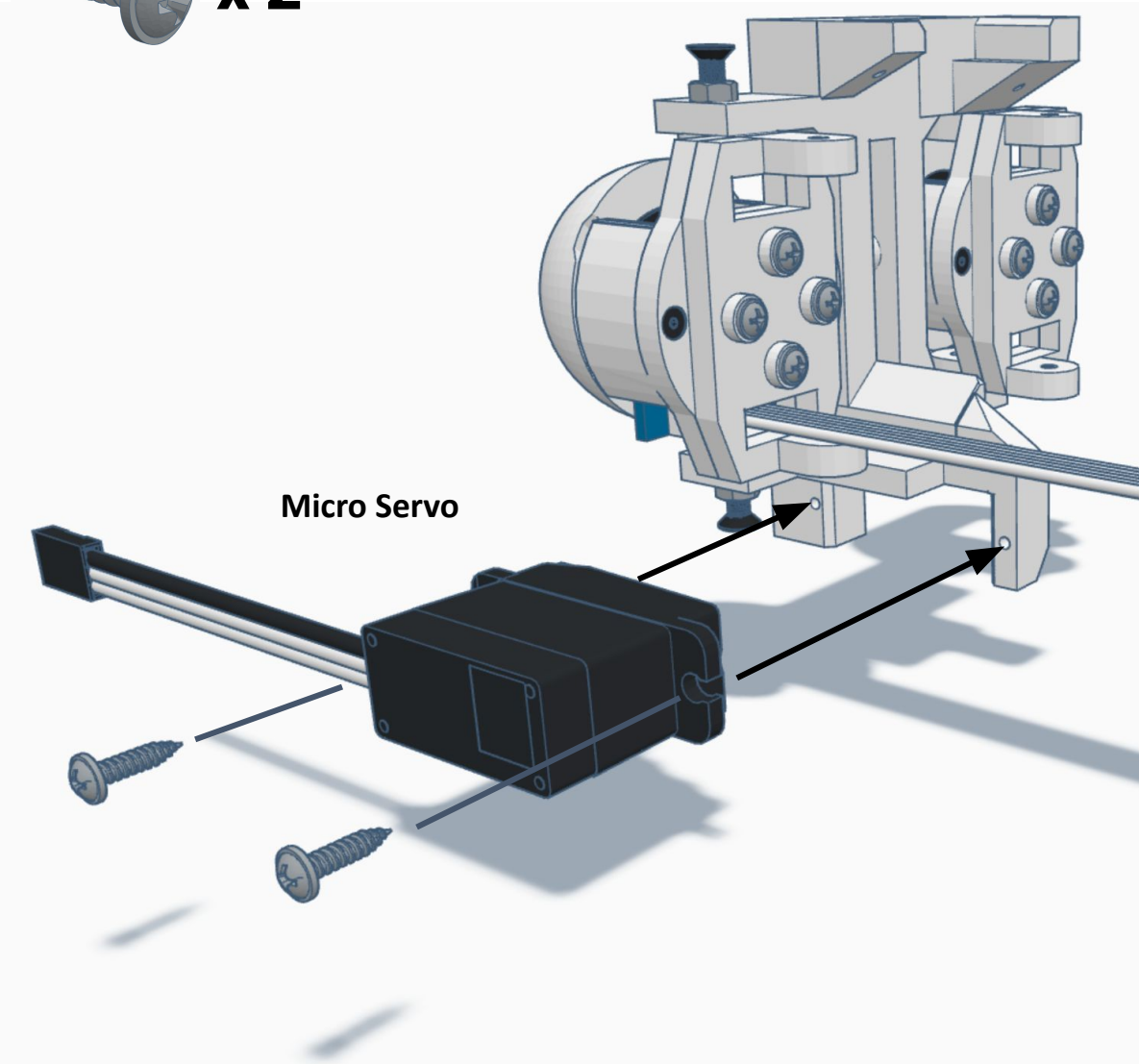
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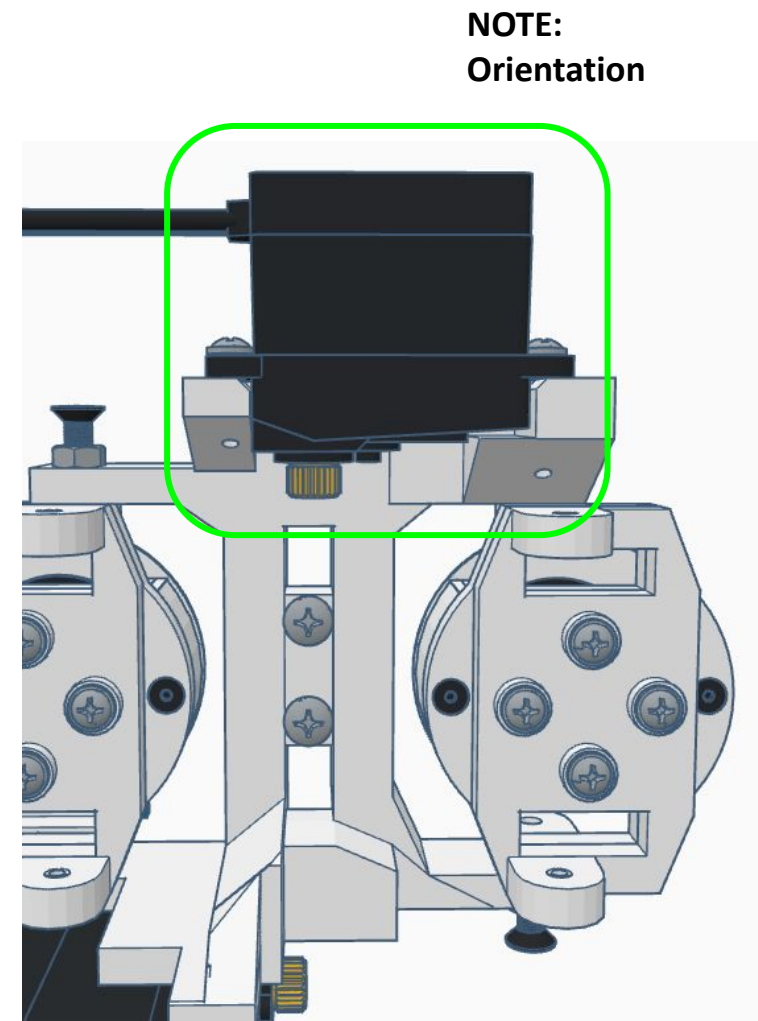
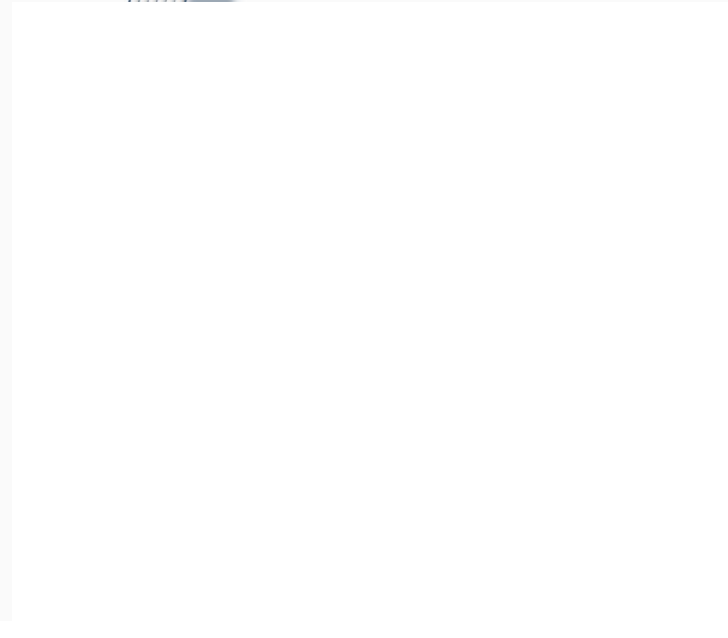
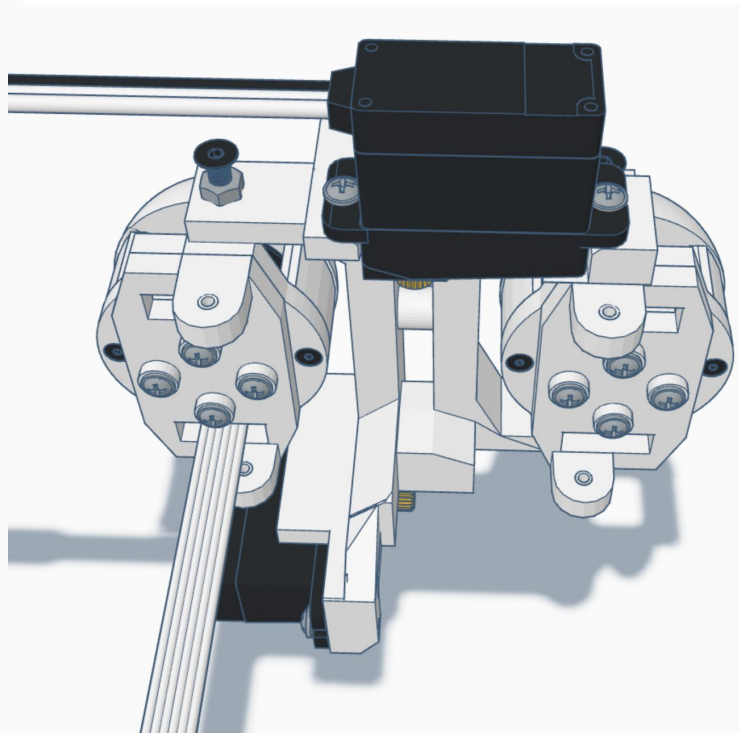
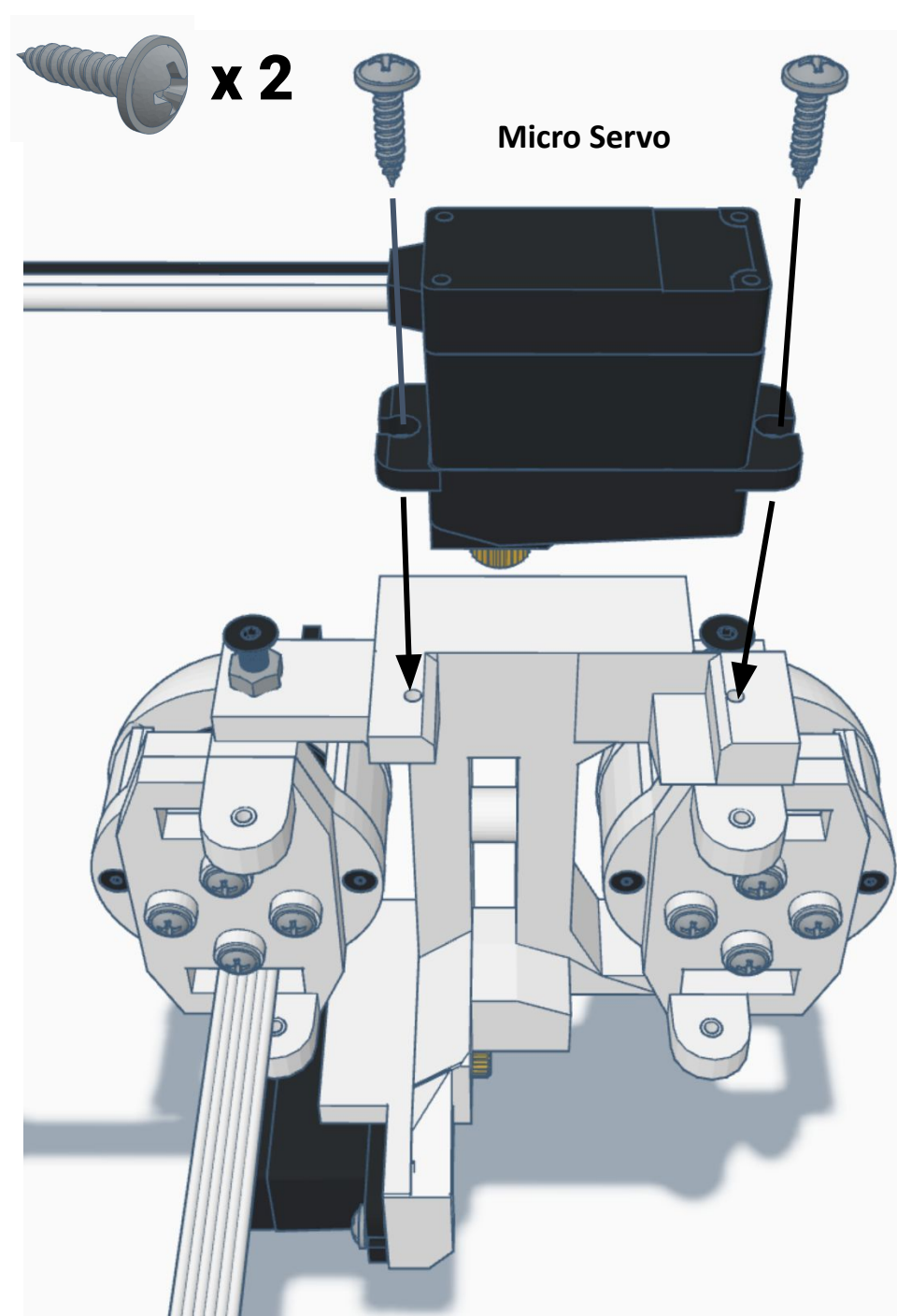
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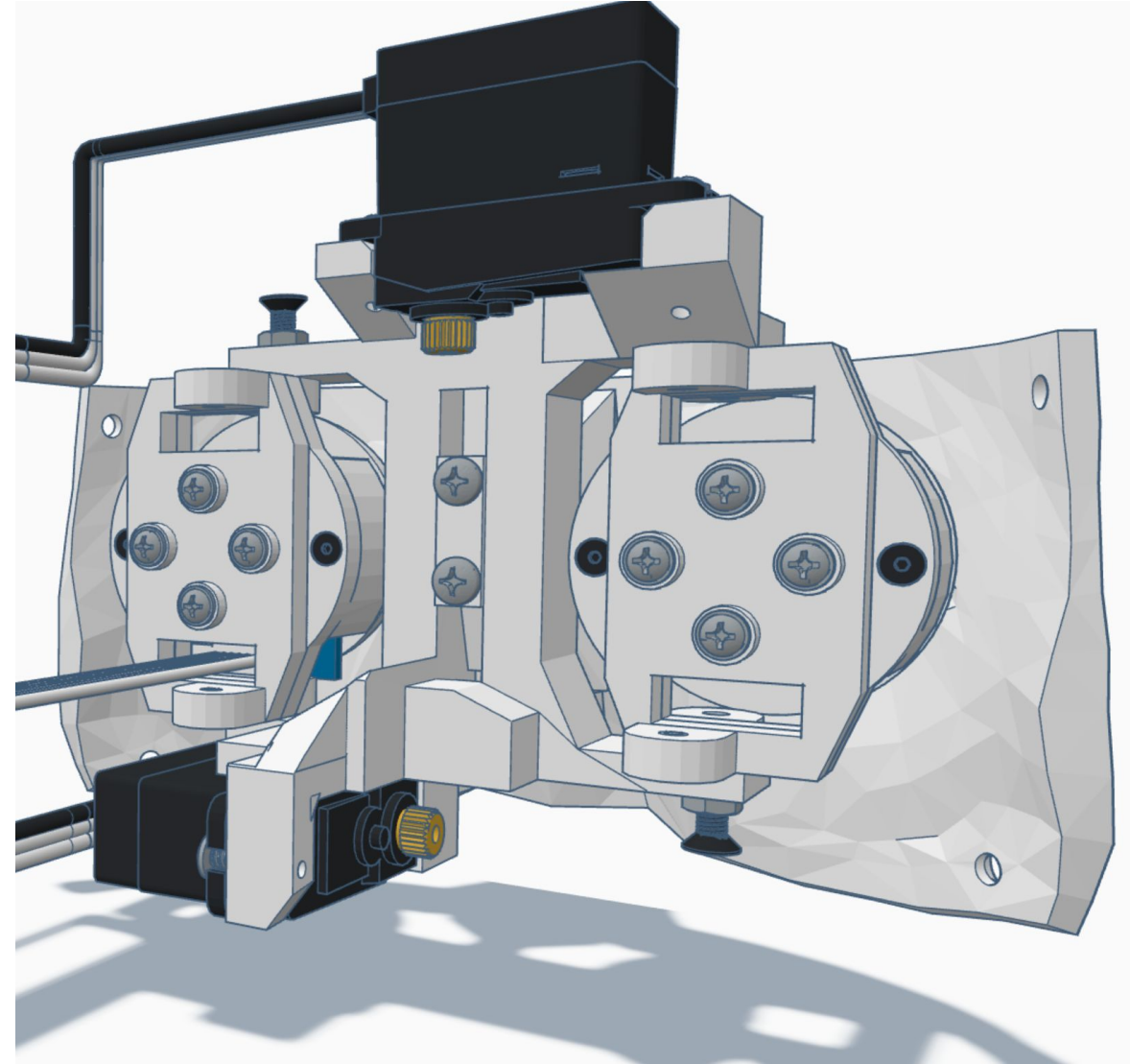
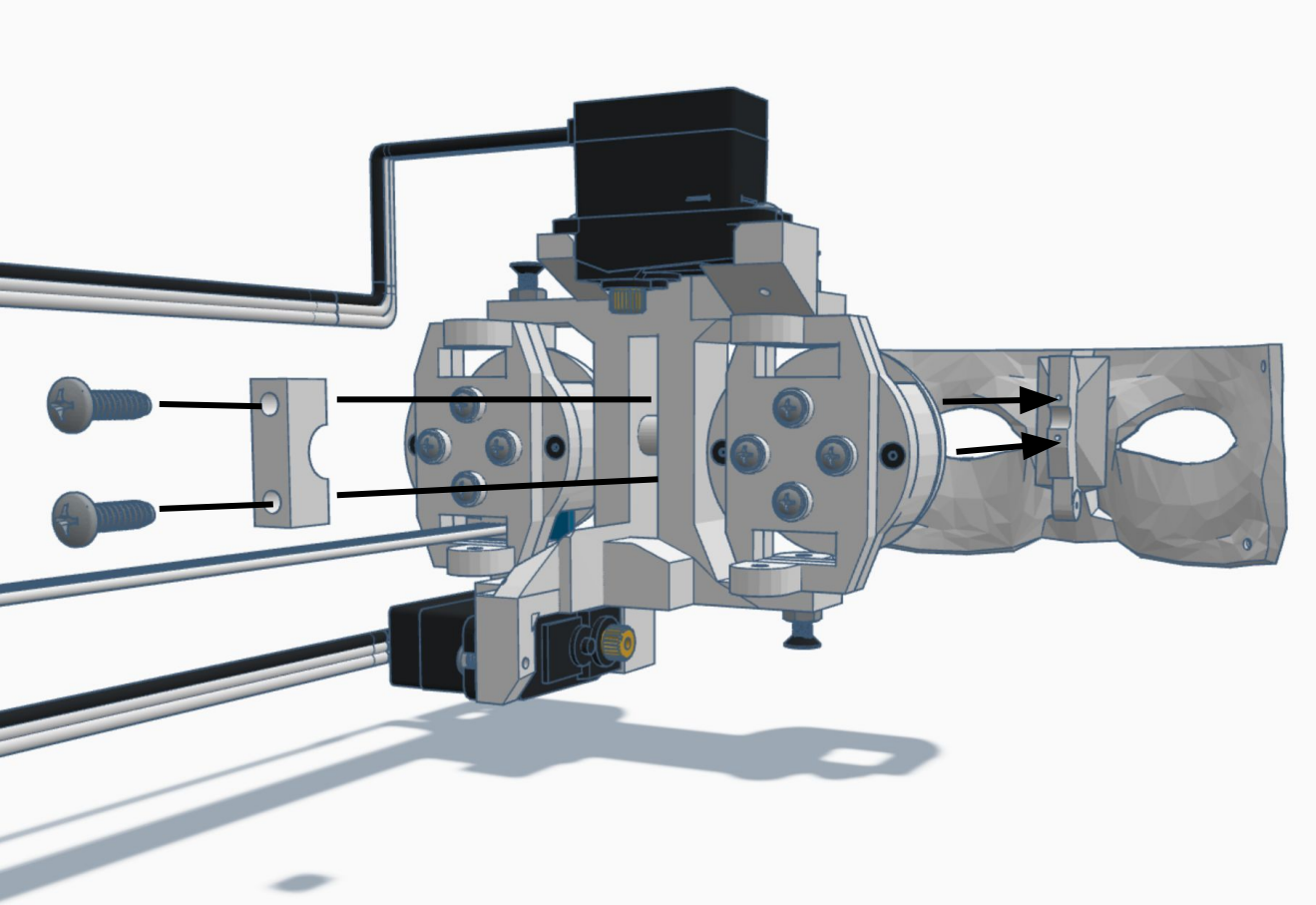


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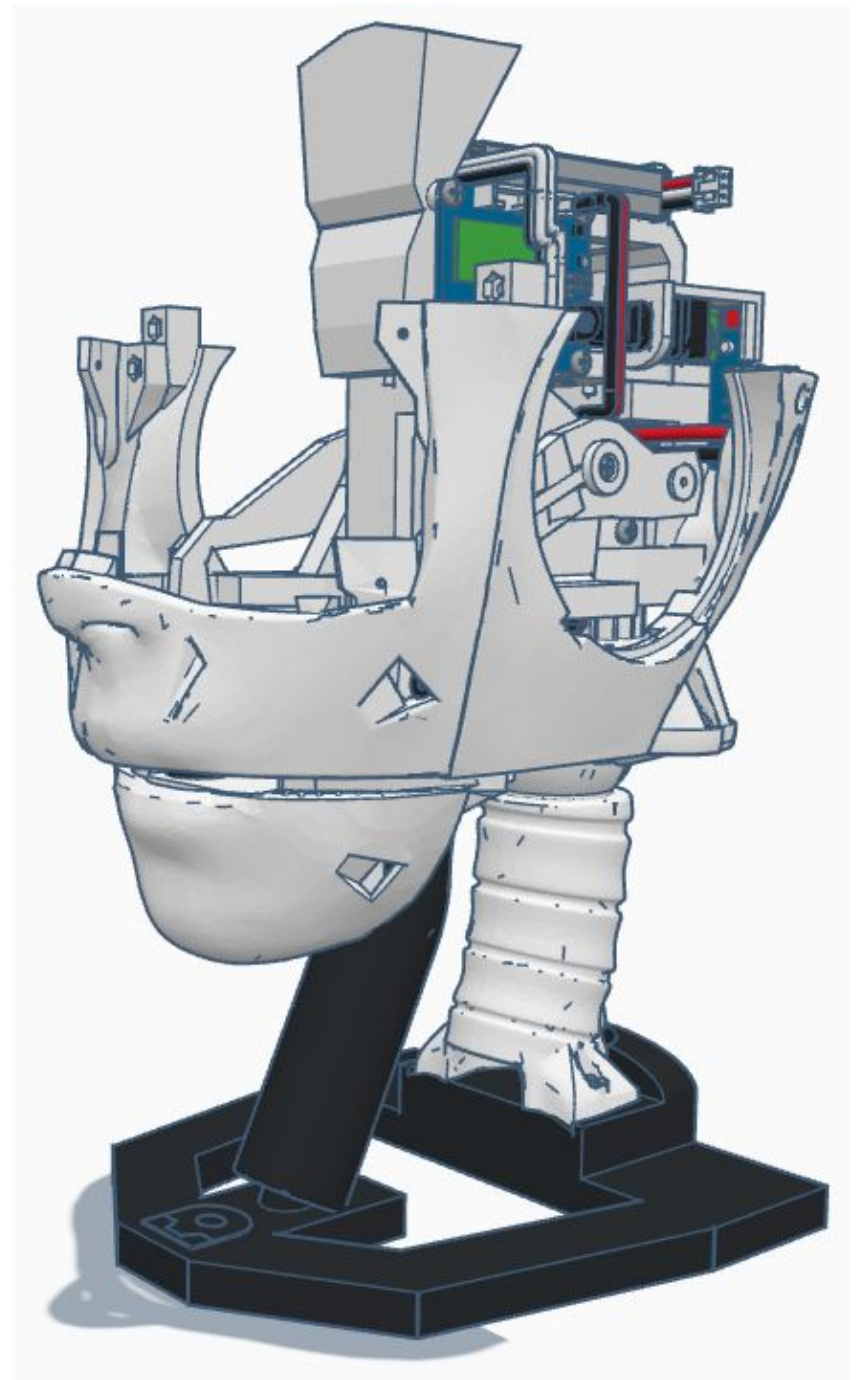
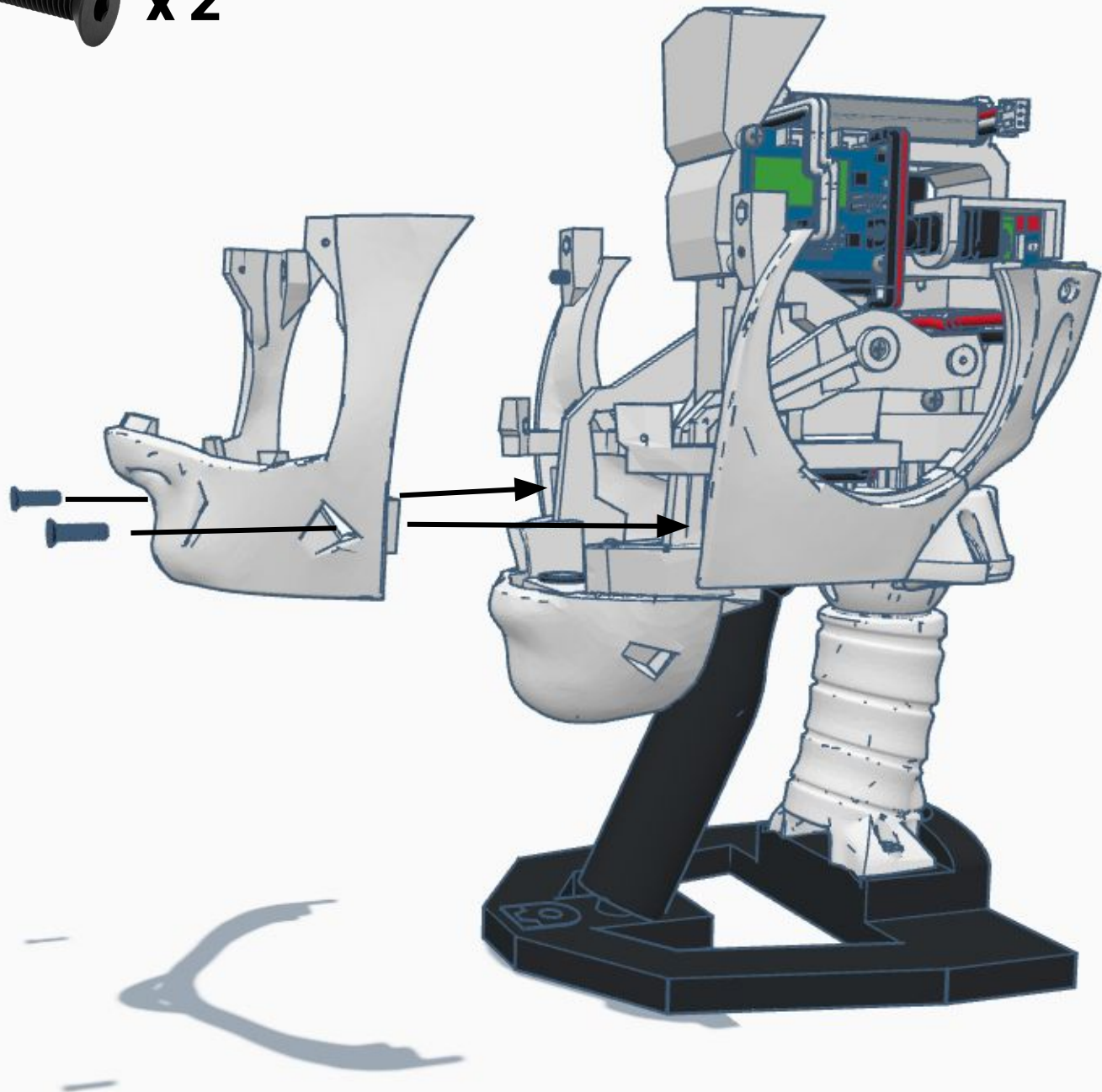




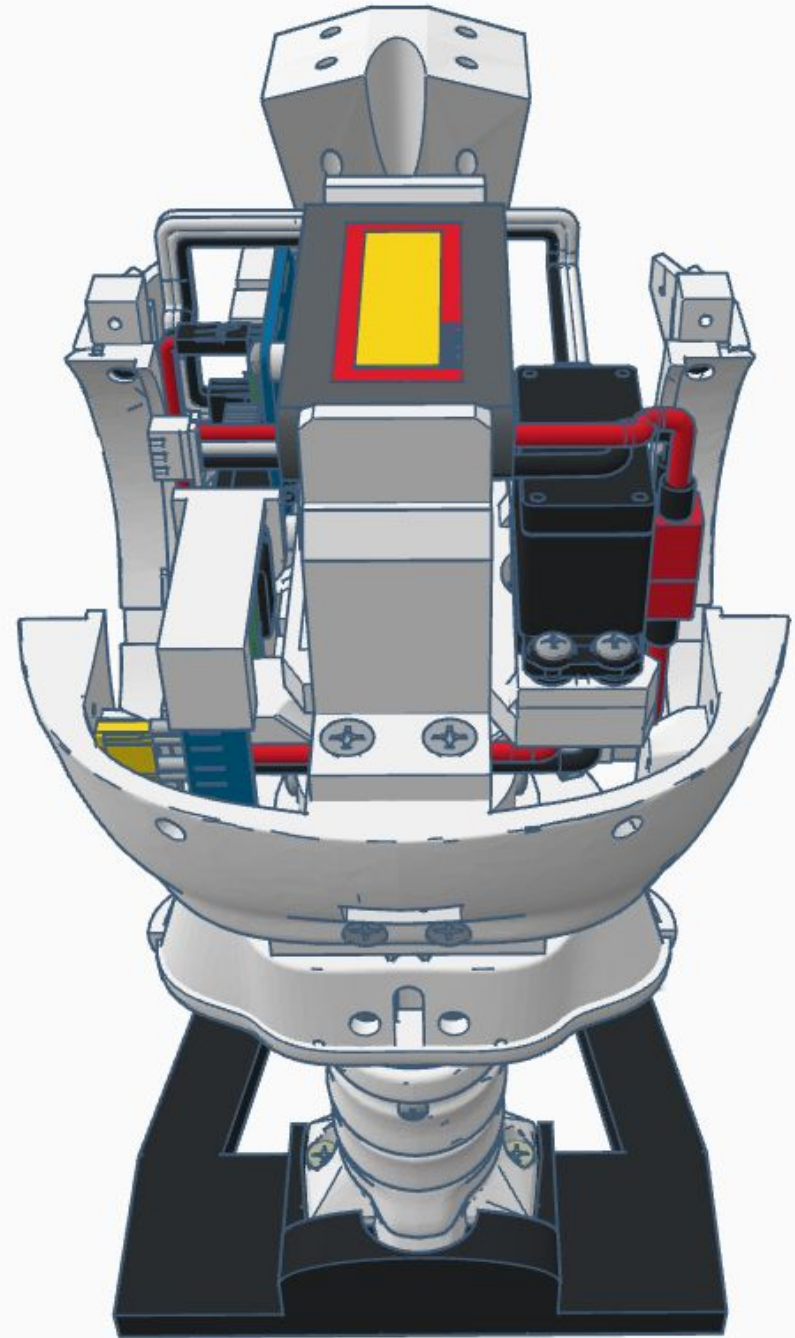
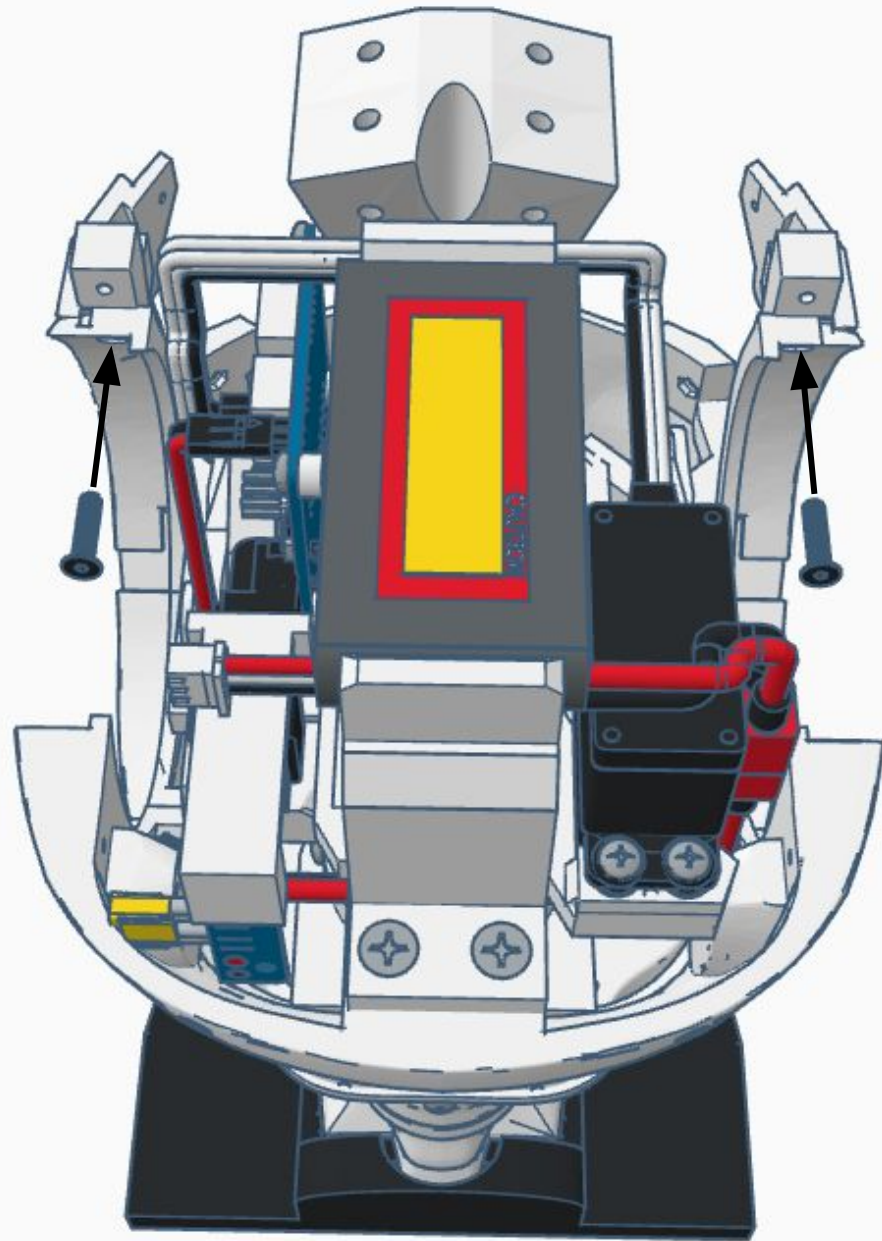
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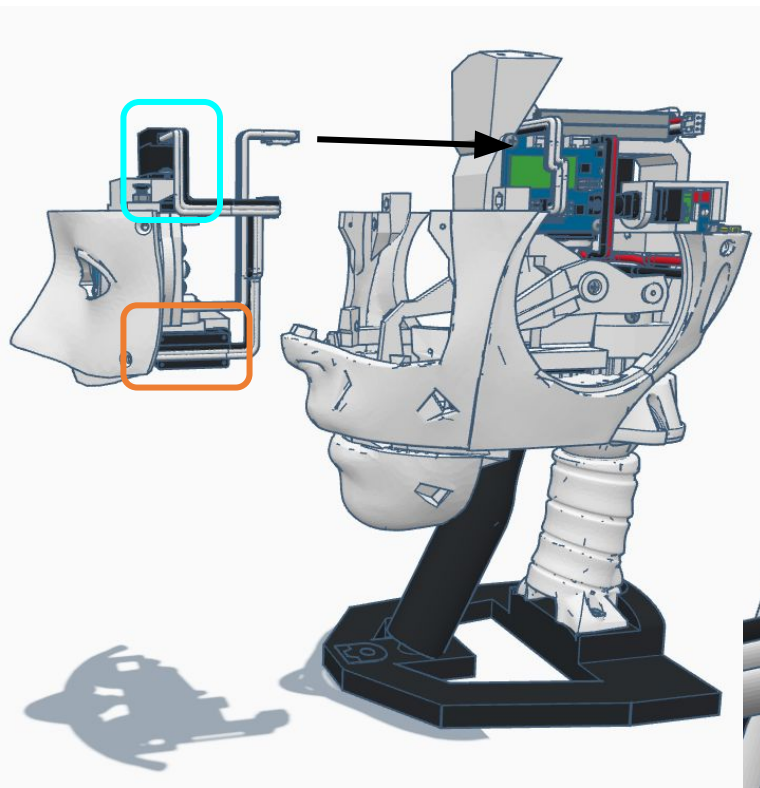


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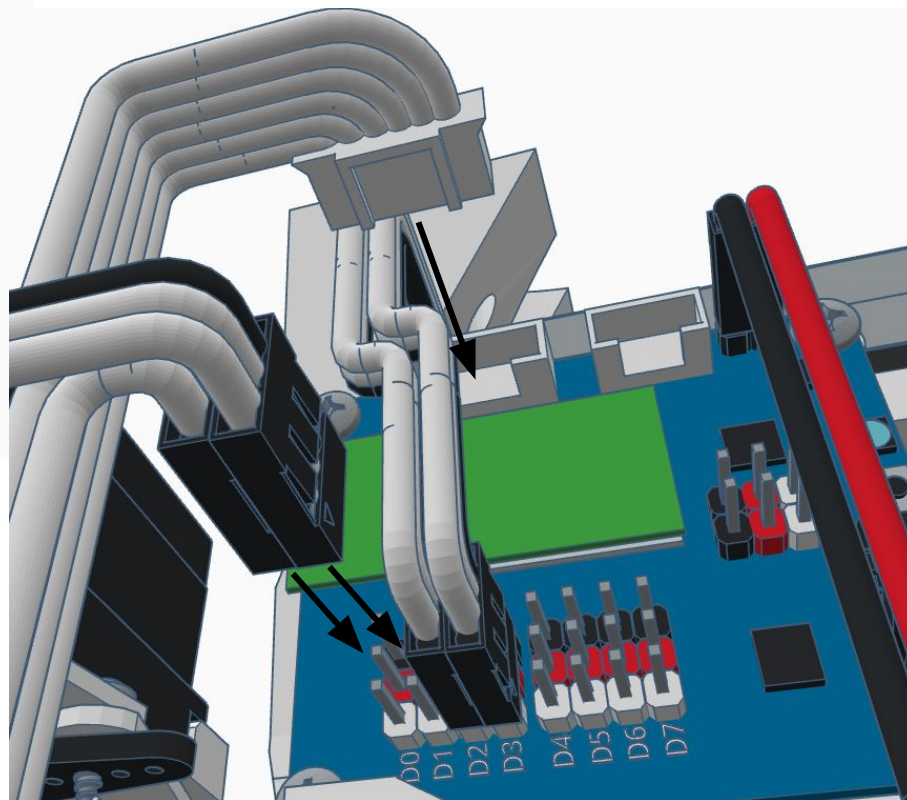


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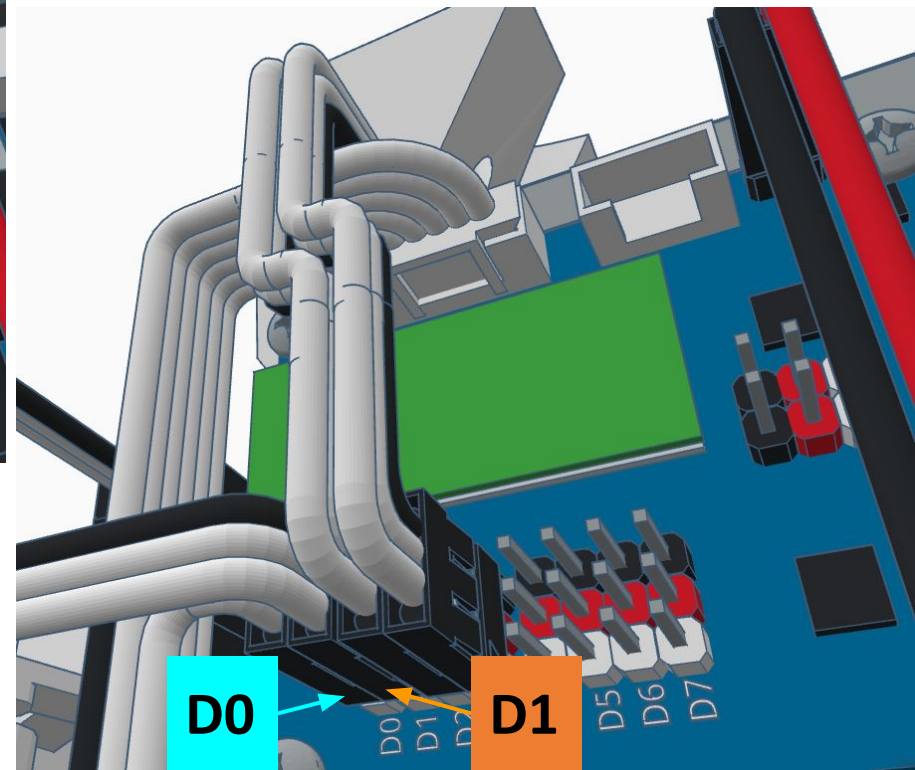


Camera Cable plugs into CAMERA port

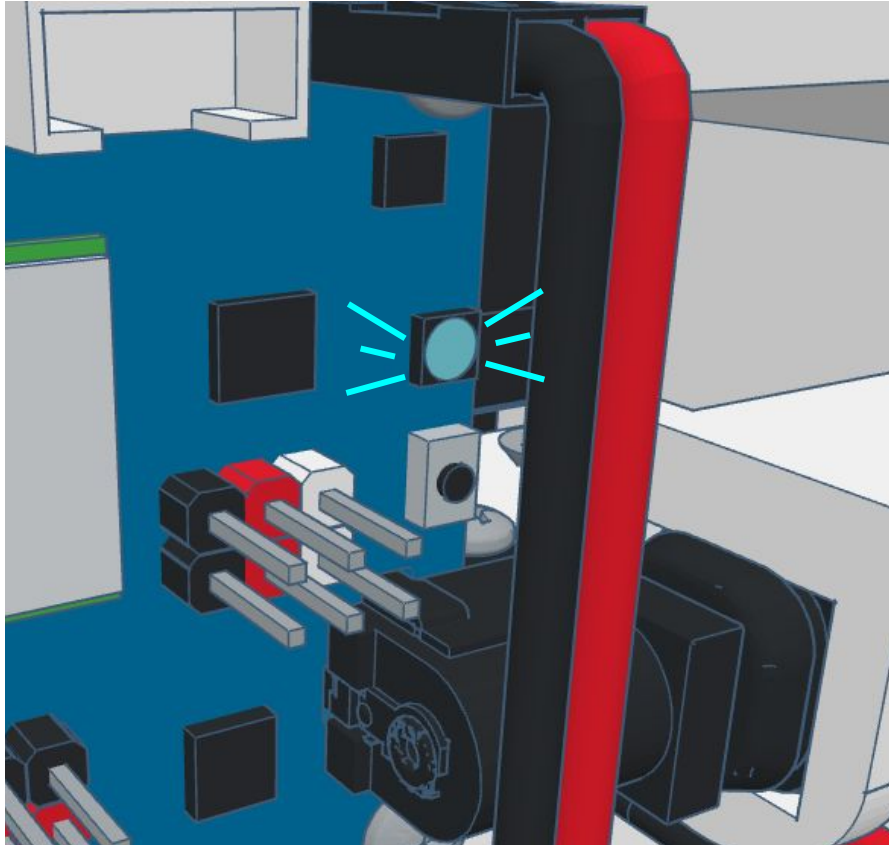


D0 - Eye Pan Servo

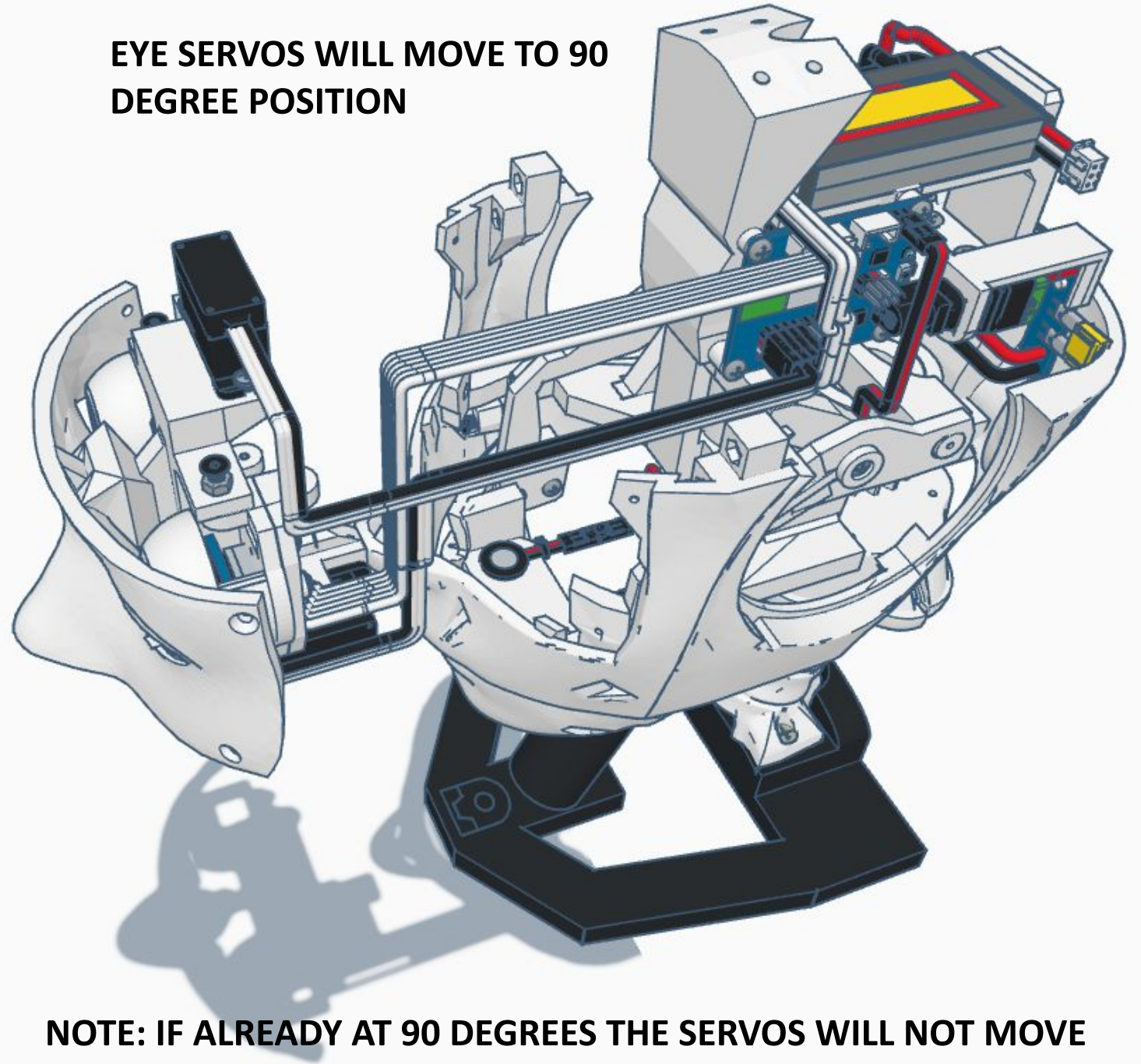
D1 - Eye Tilt Servo



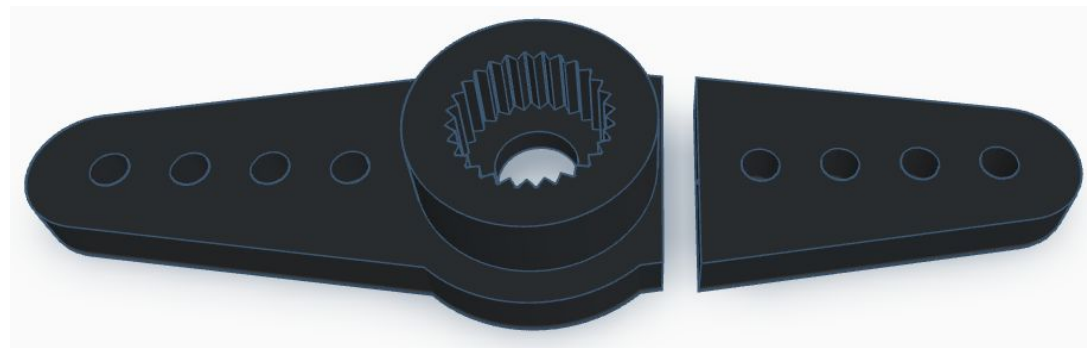
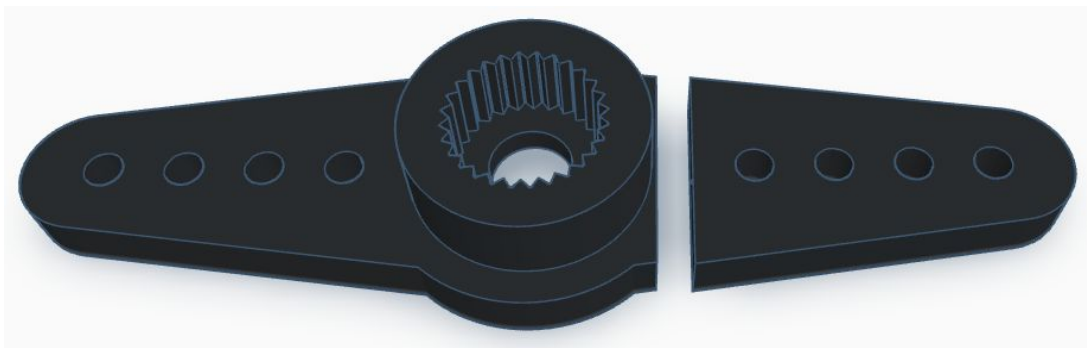
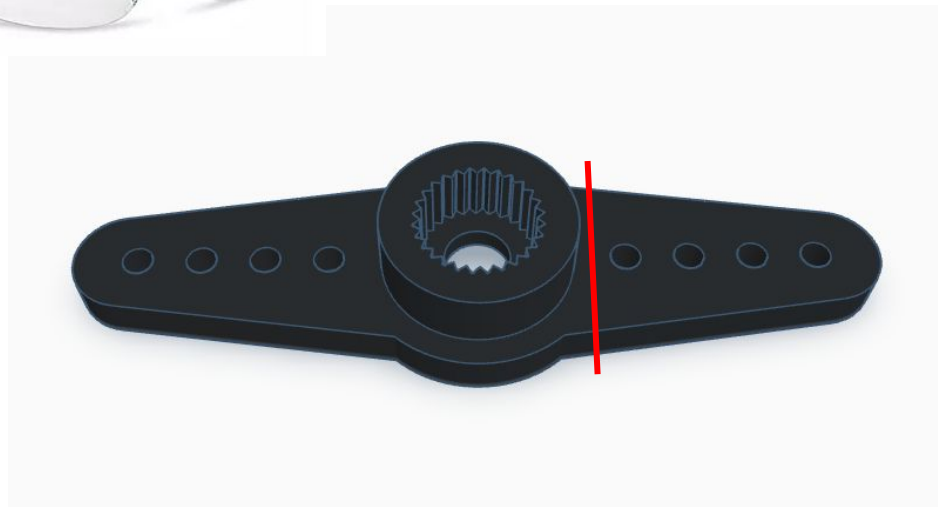
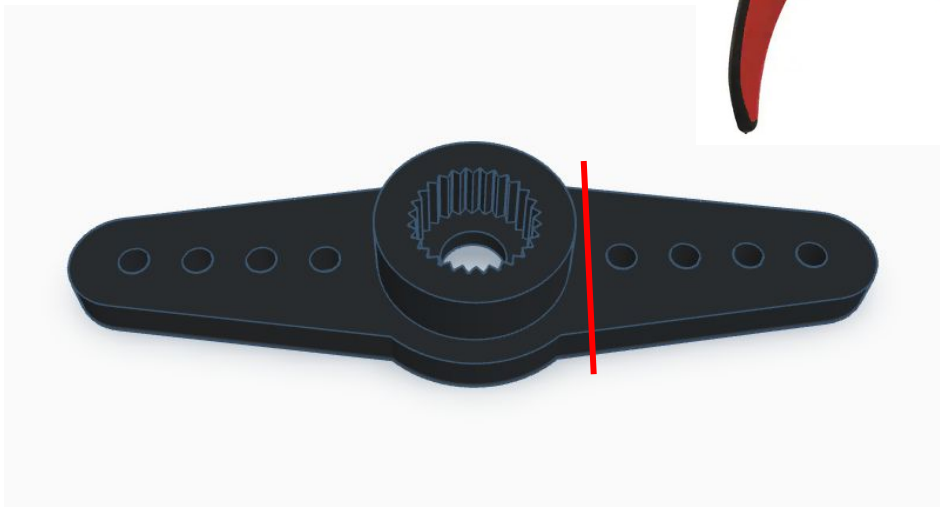
ENSURE THE IOTINY LED IS STILL FLASHING BLUE



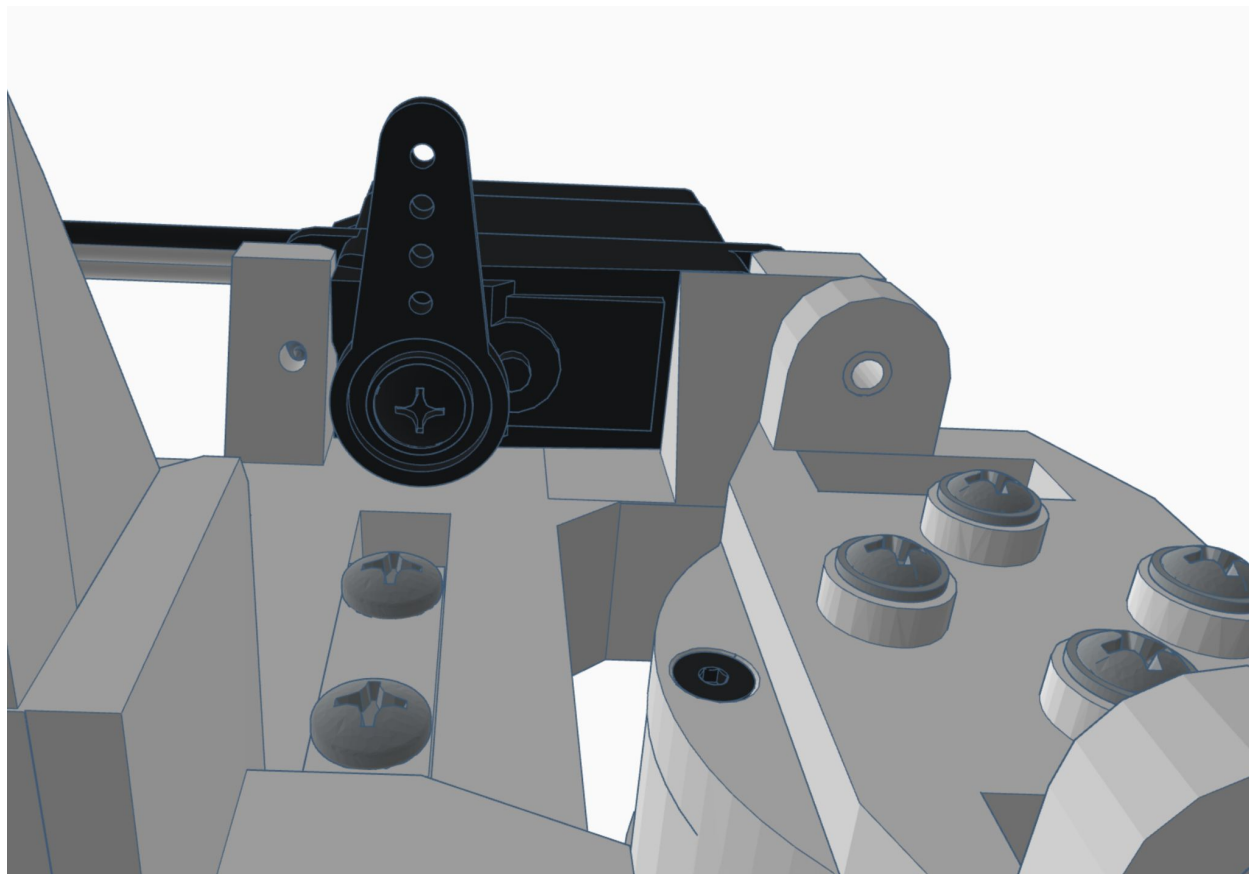
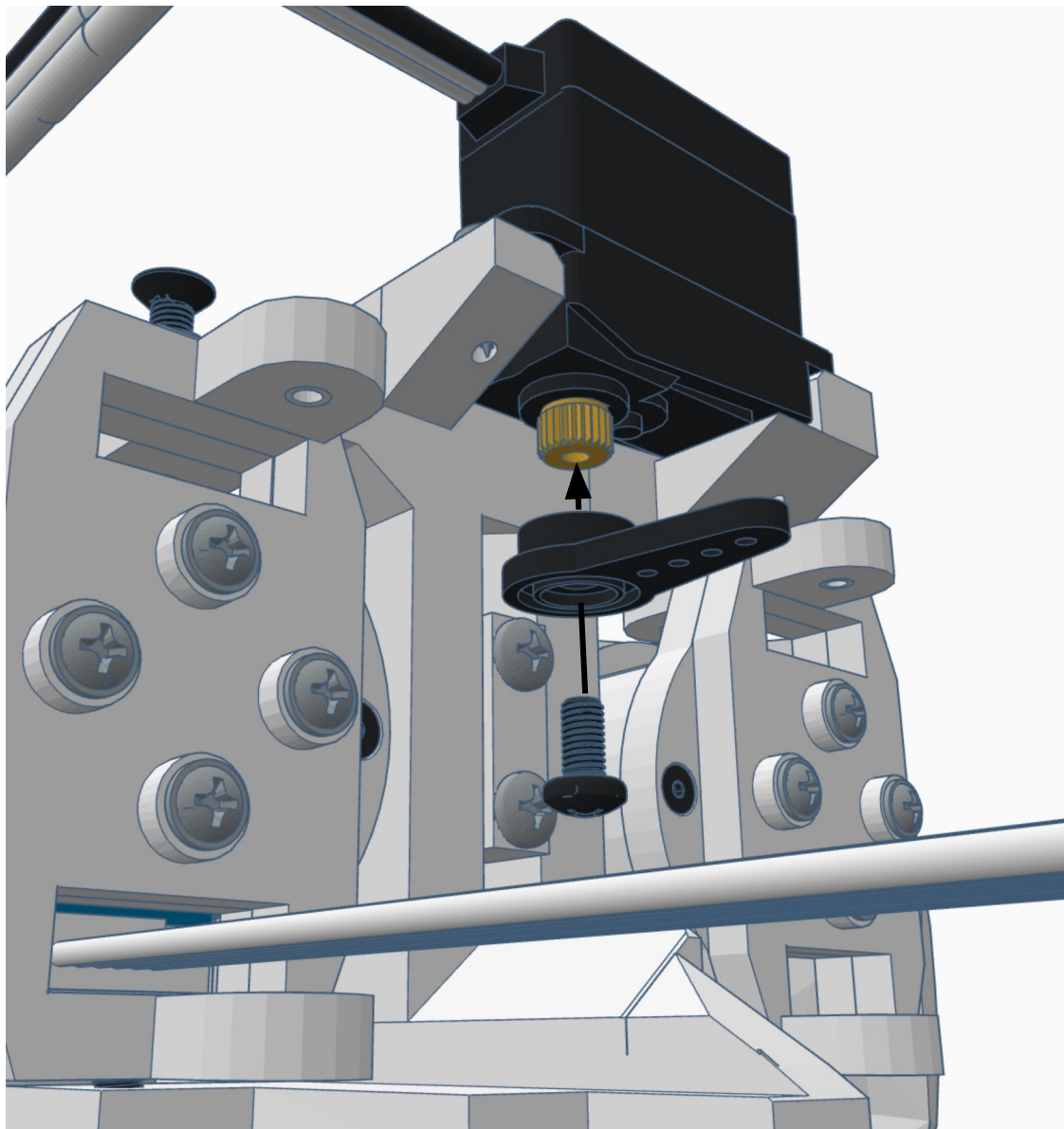
EYE SERVOS WILL MOVE TO 90 DEGREE POSITION



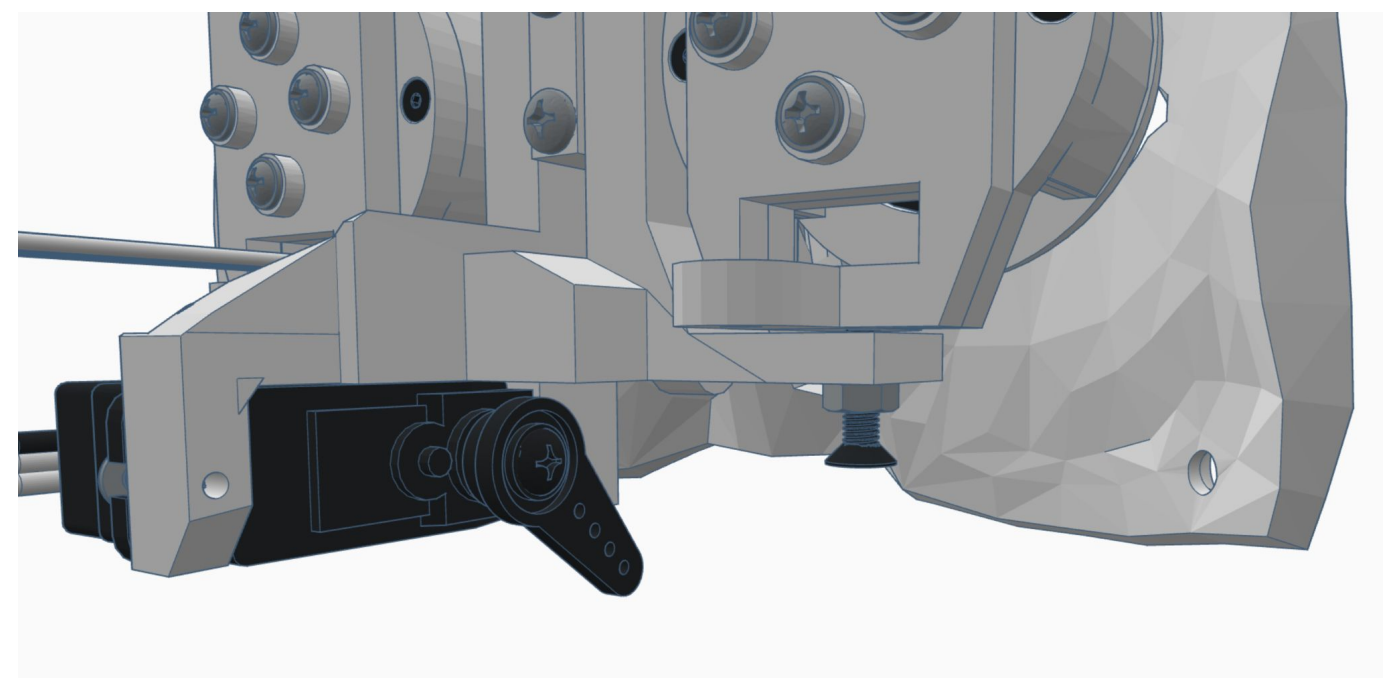
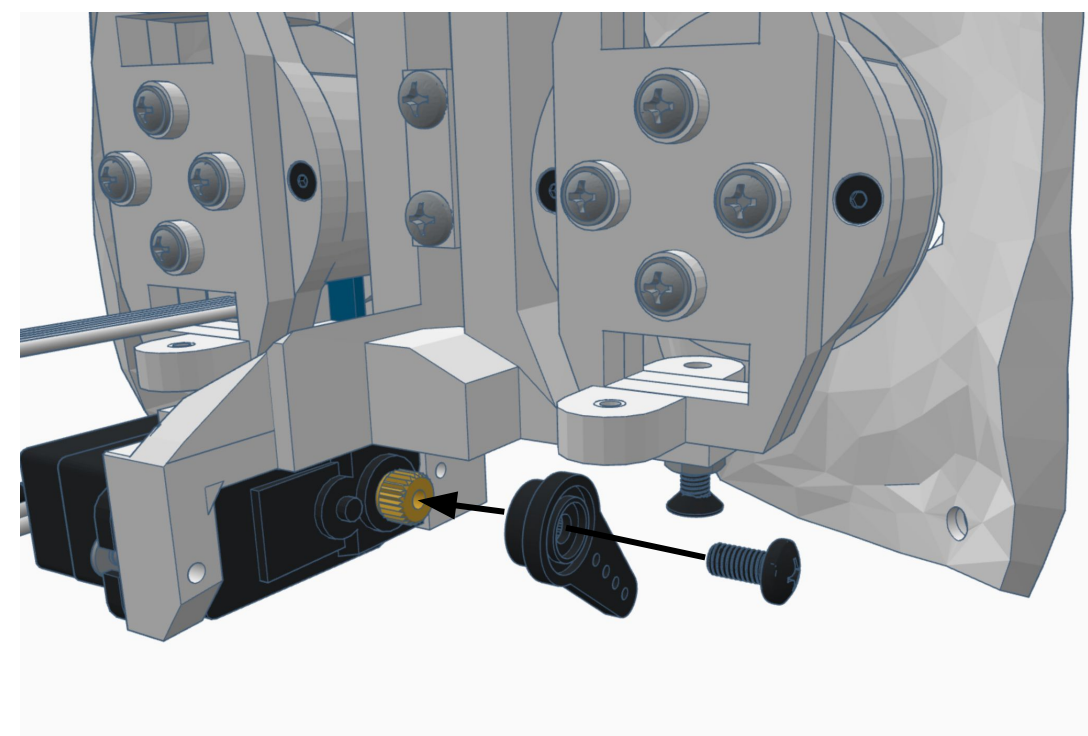
NOTE: IF ALREADY AT 90 DEGREES THE SERVOS WILL NOT MOVE

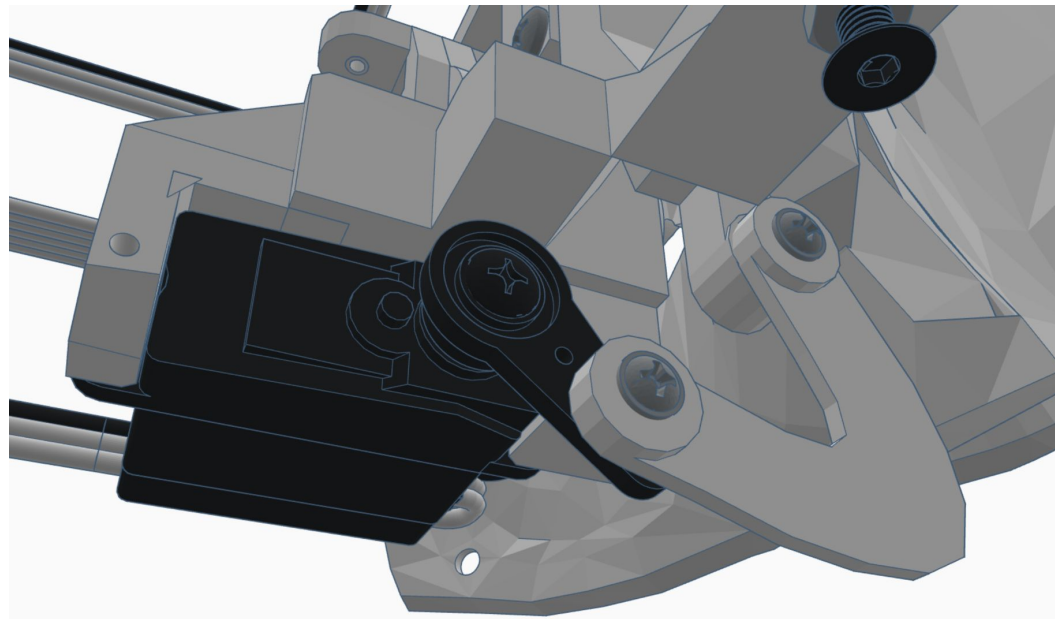
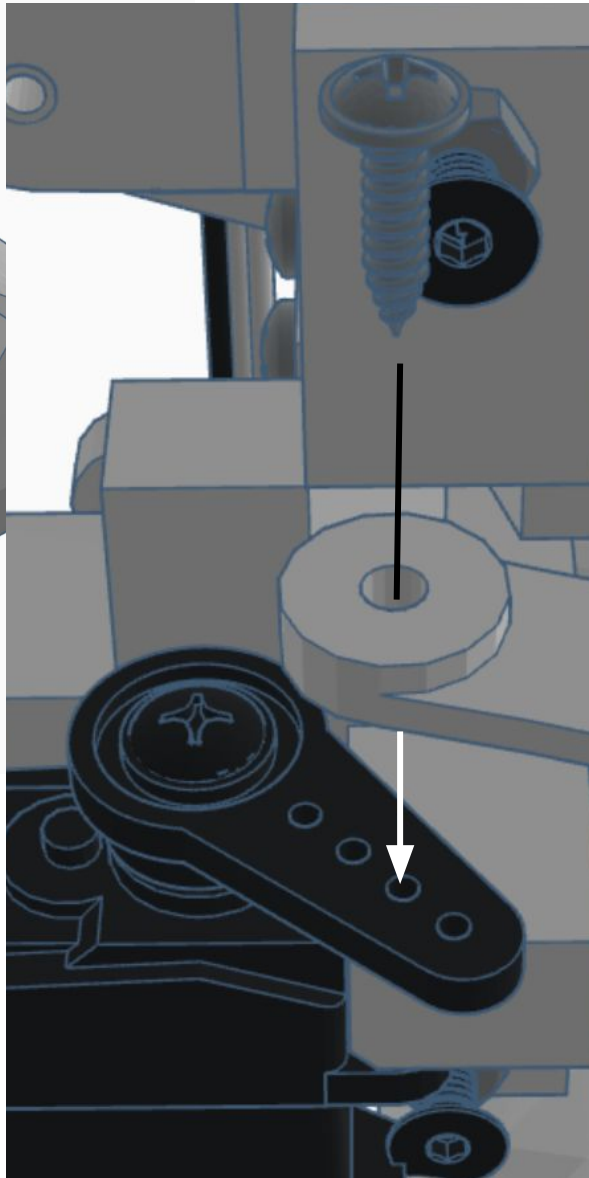
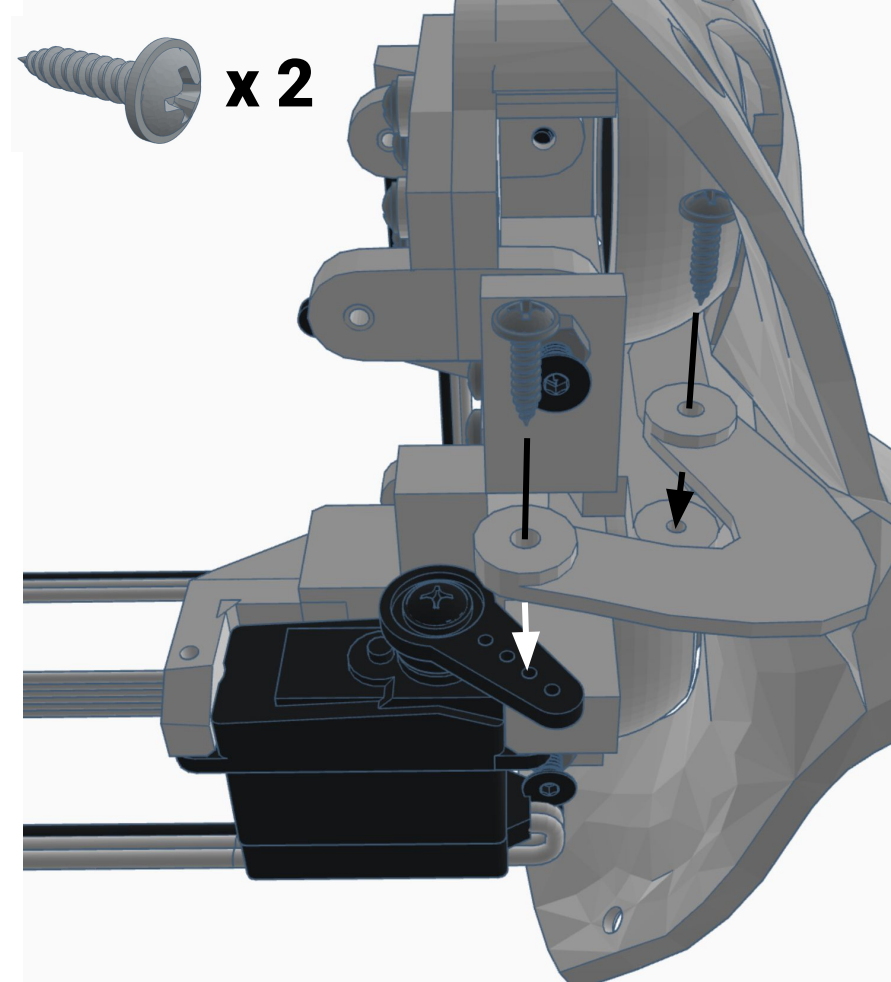


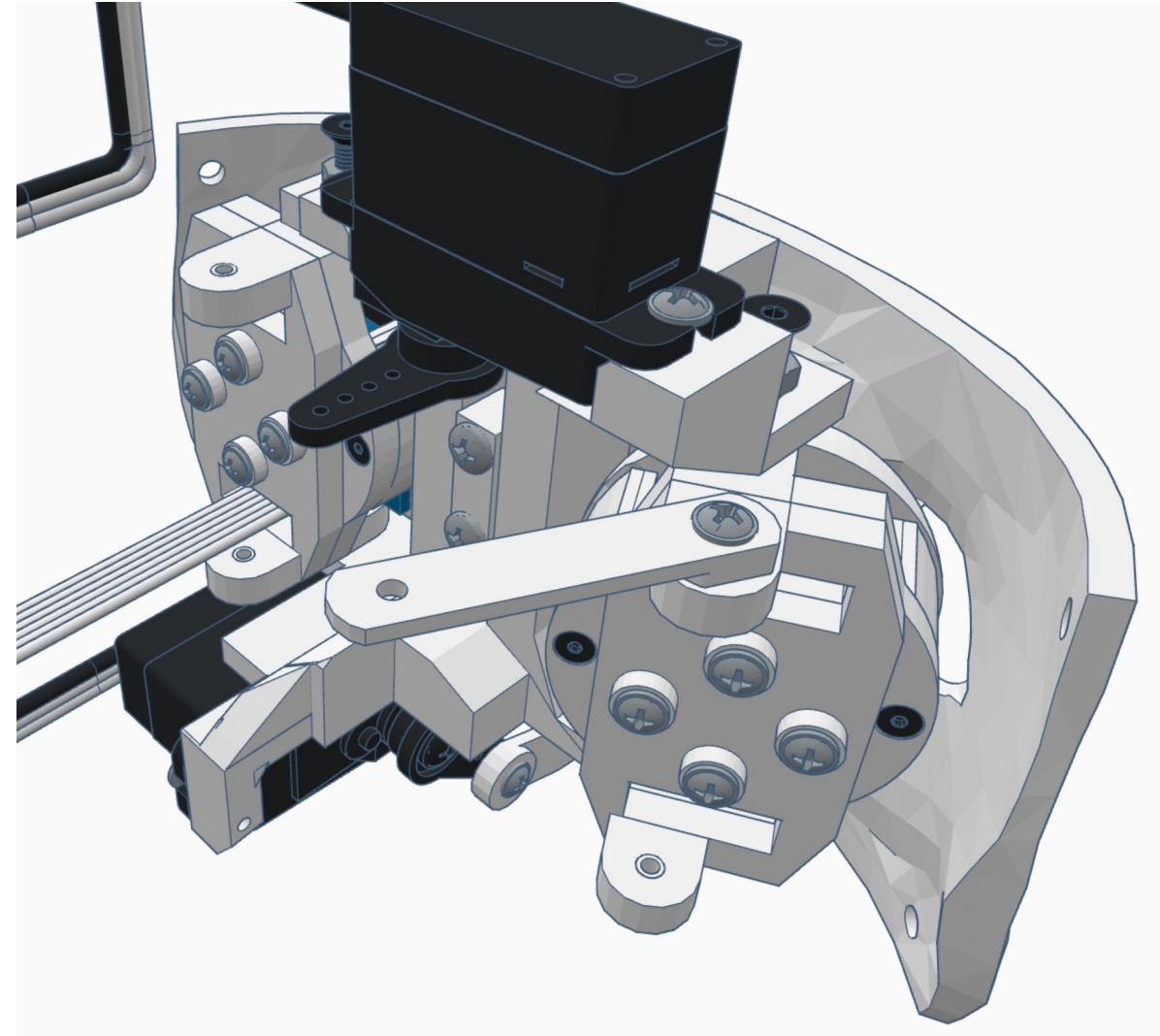
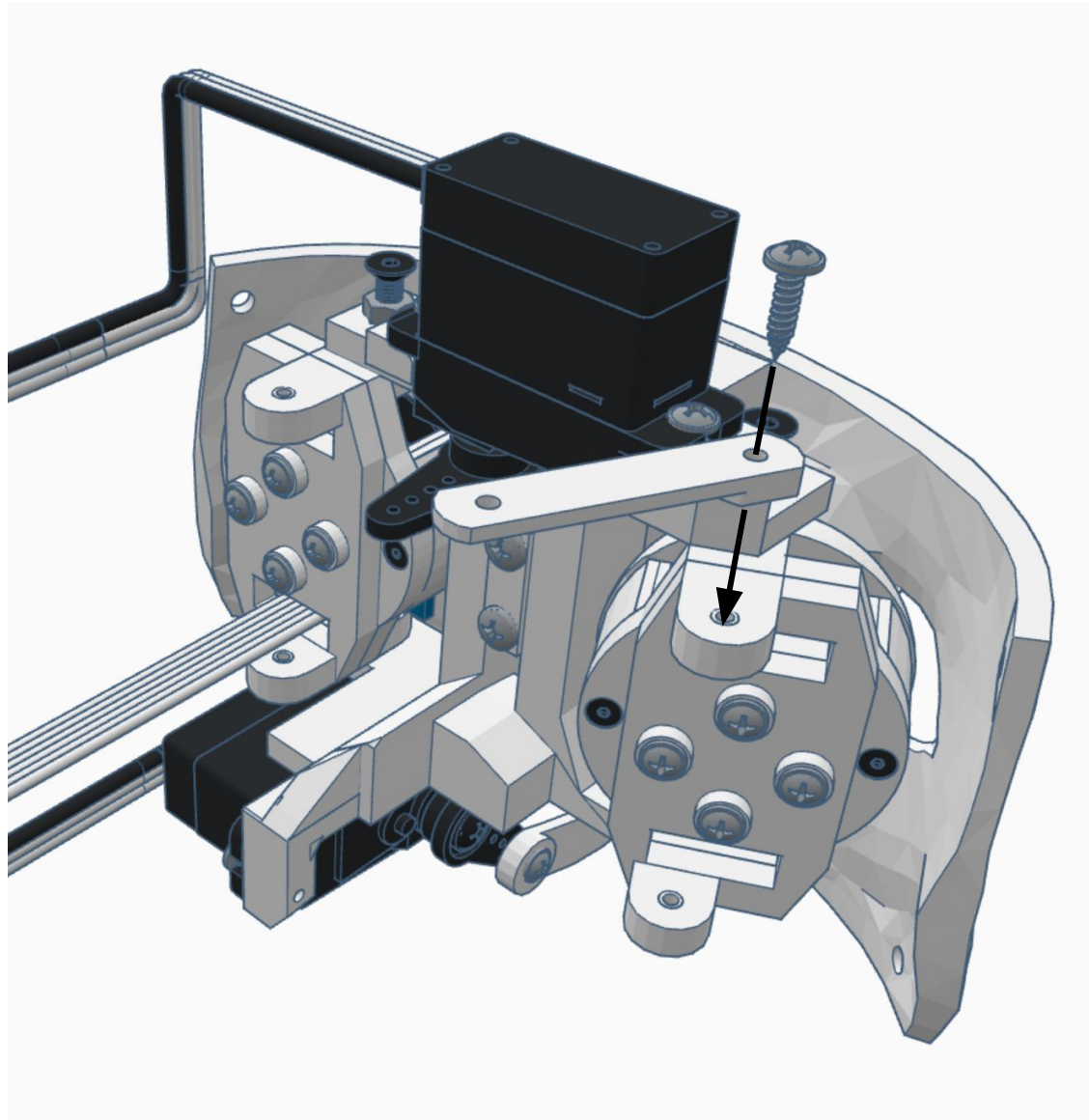
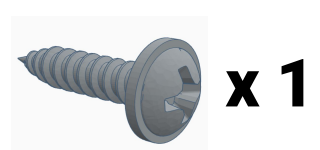
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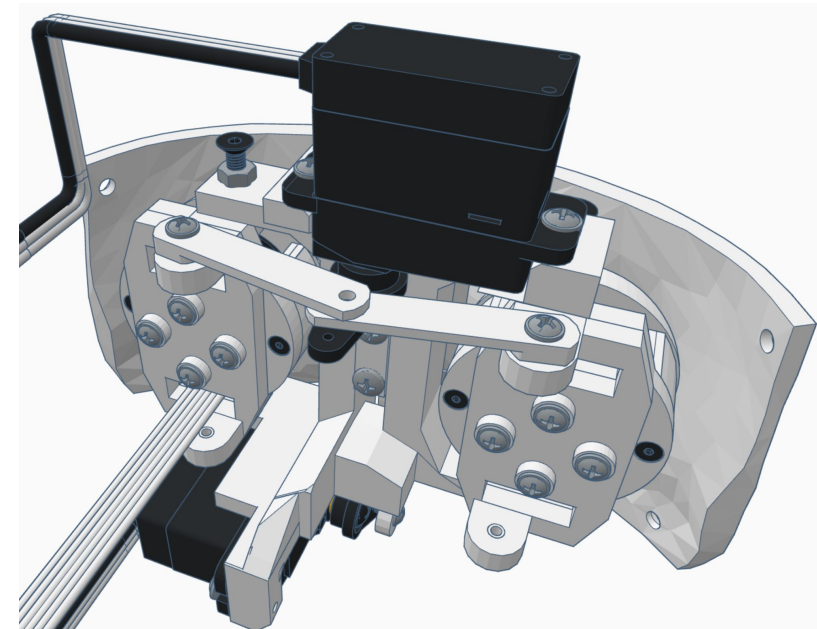
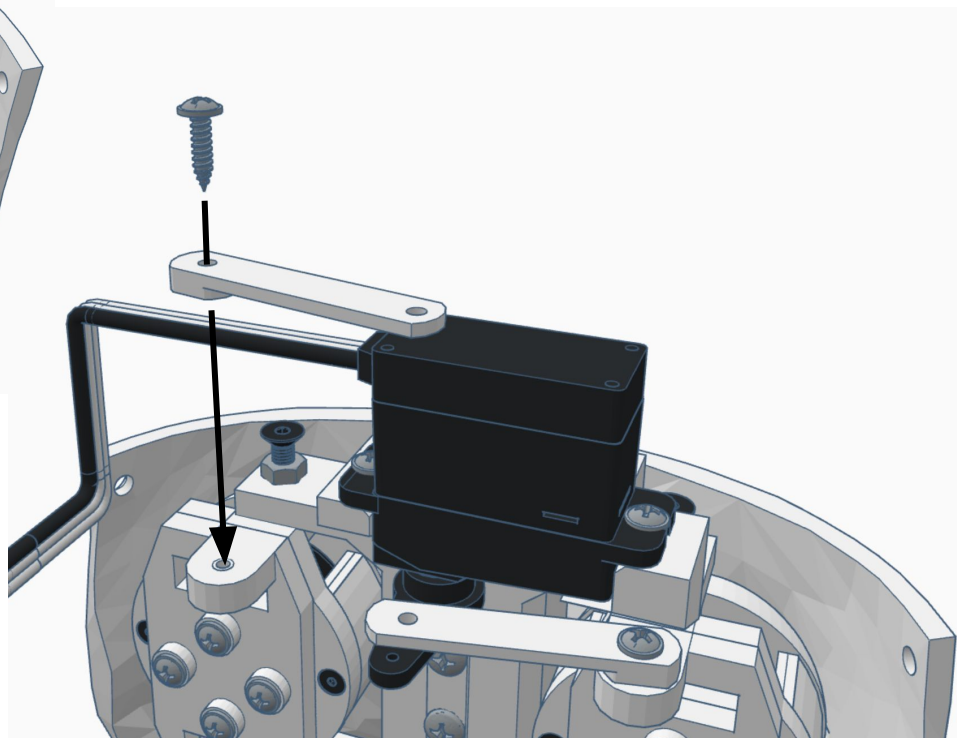
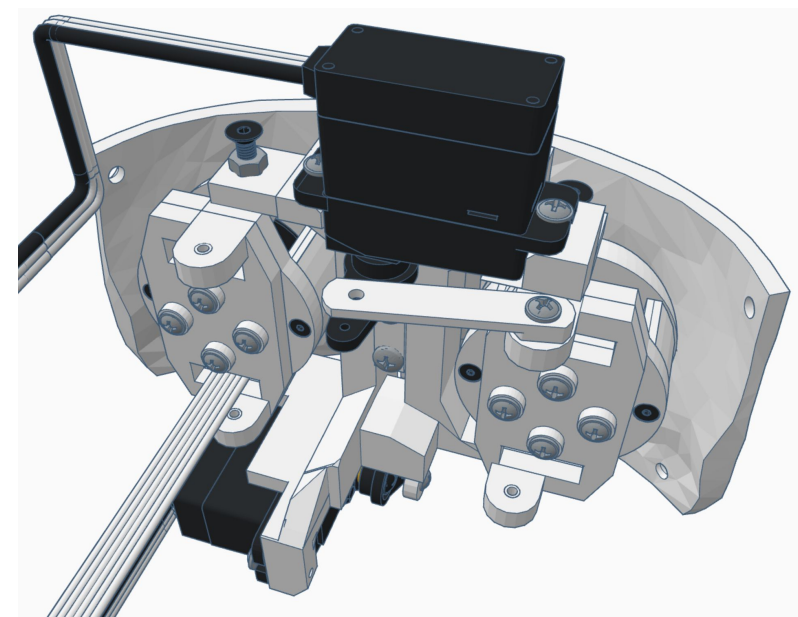
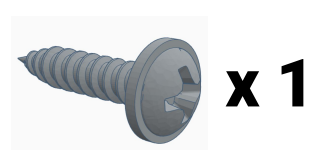


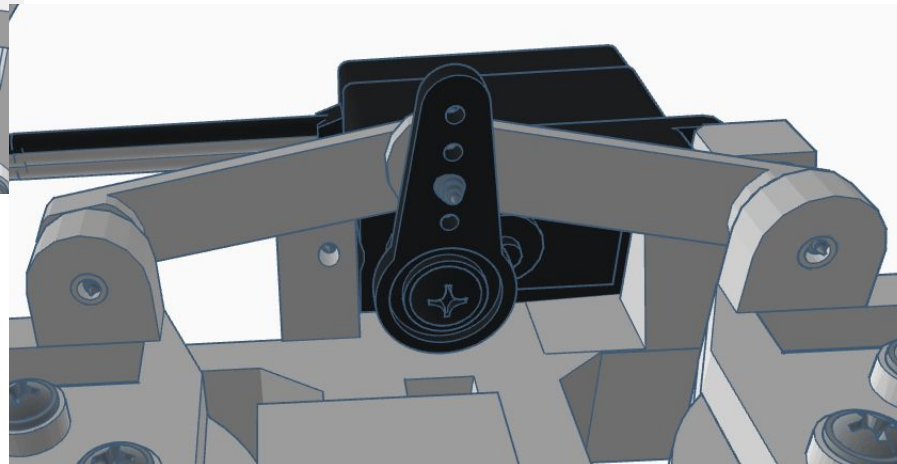
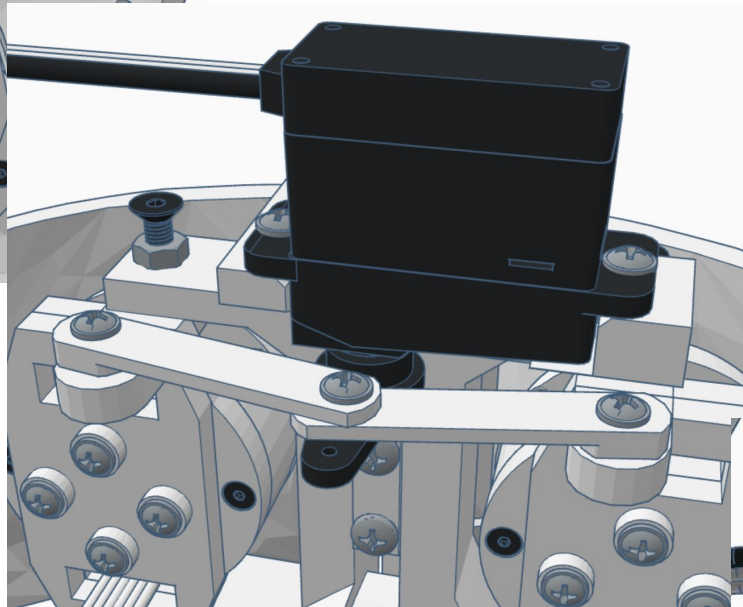
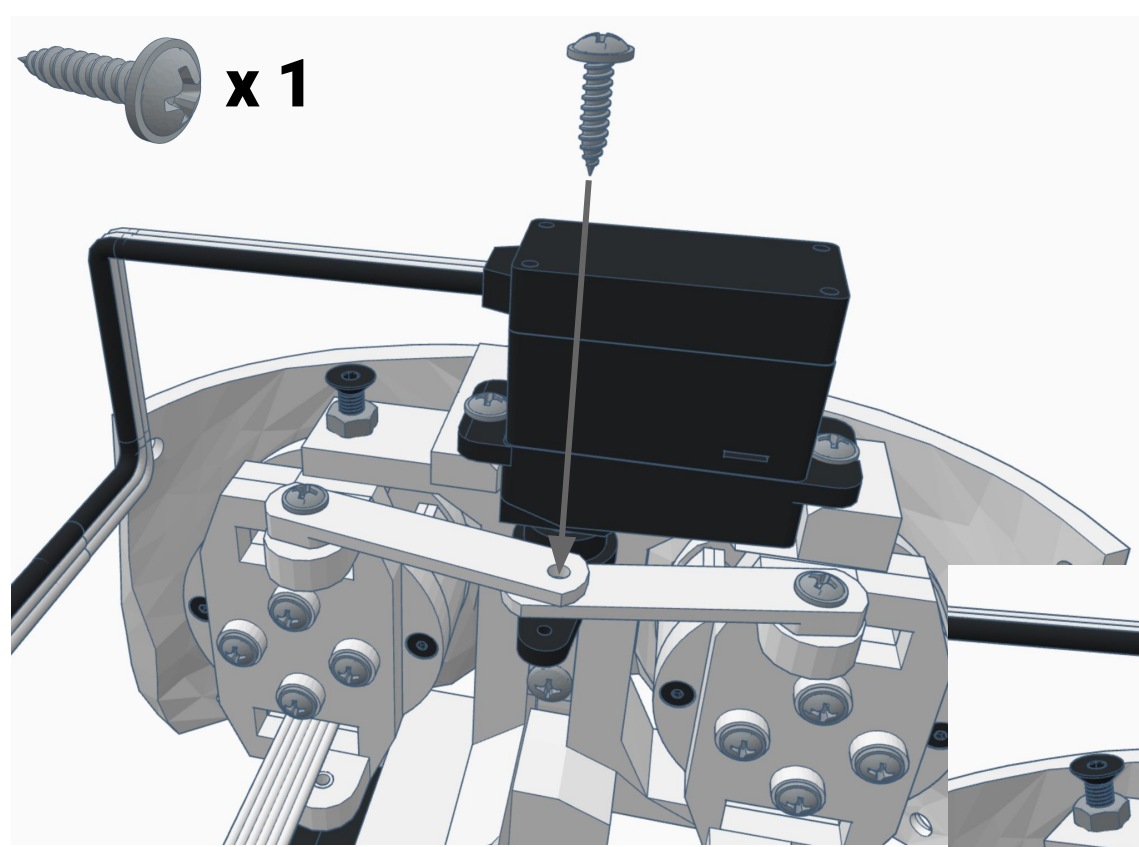
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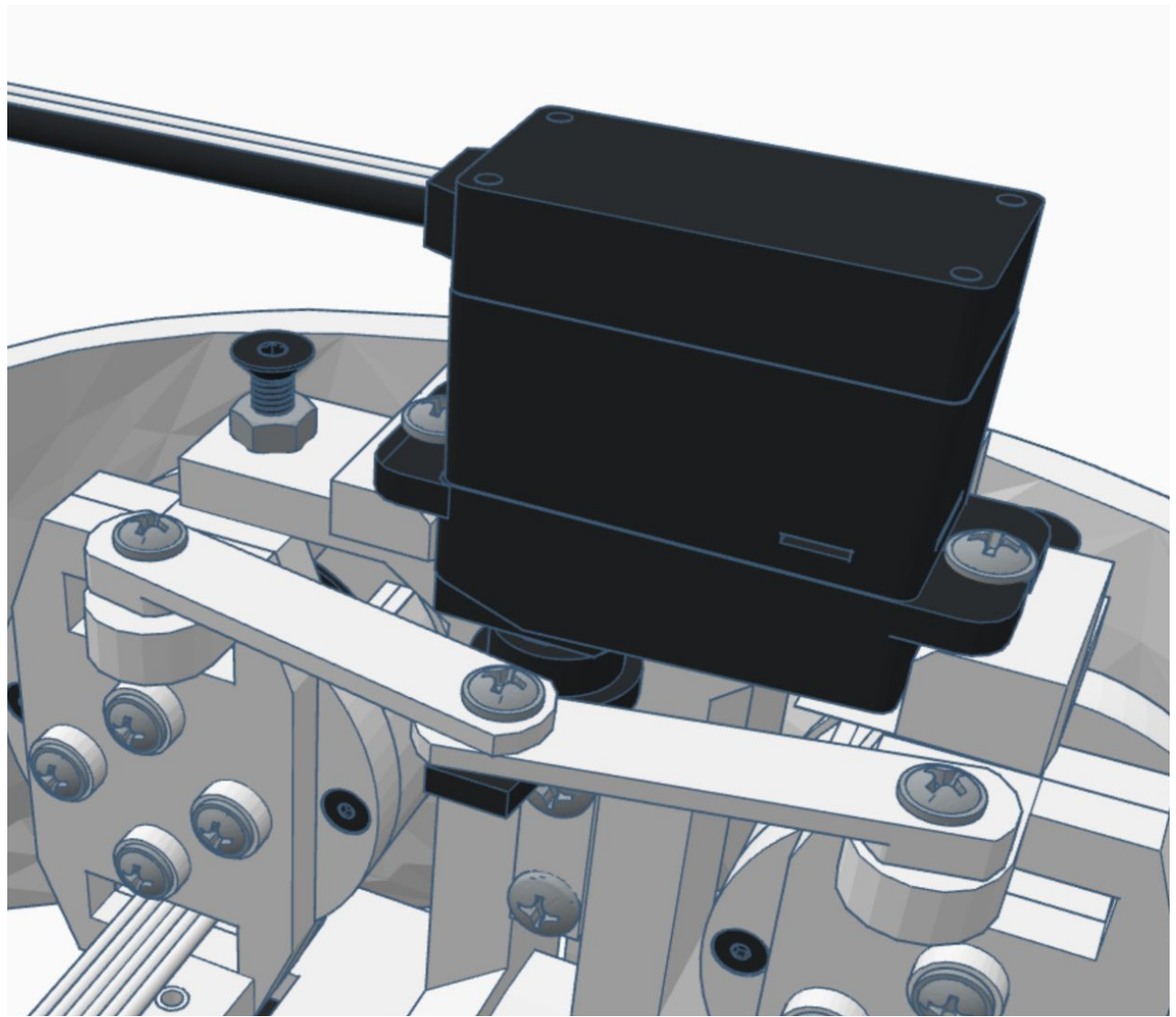
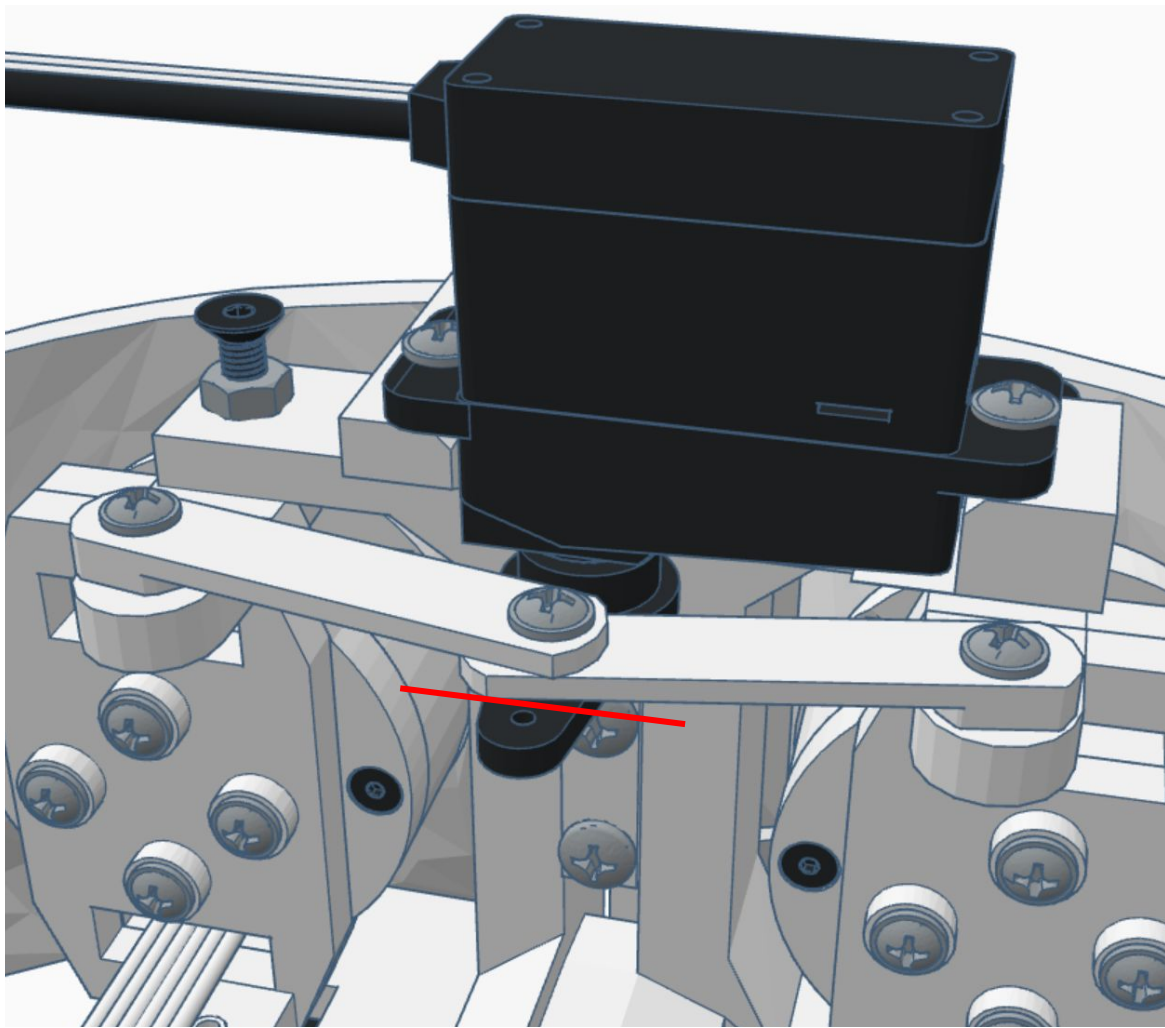


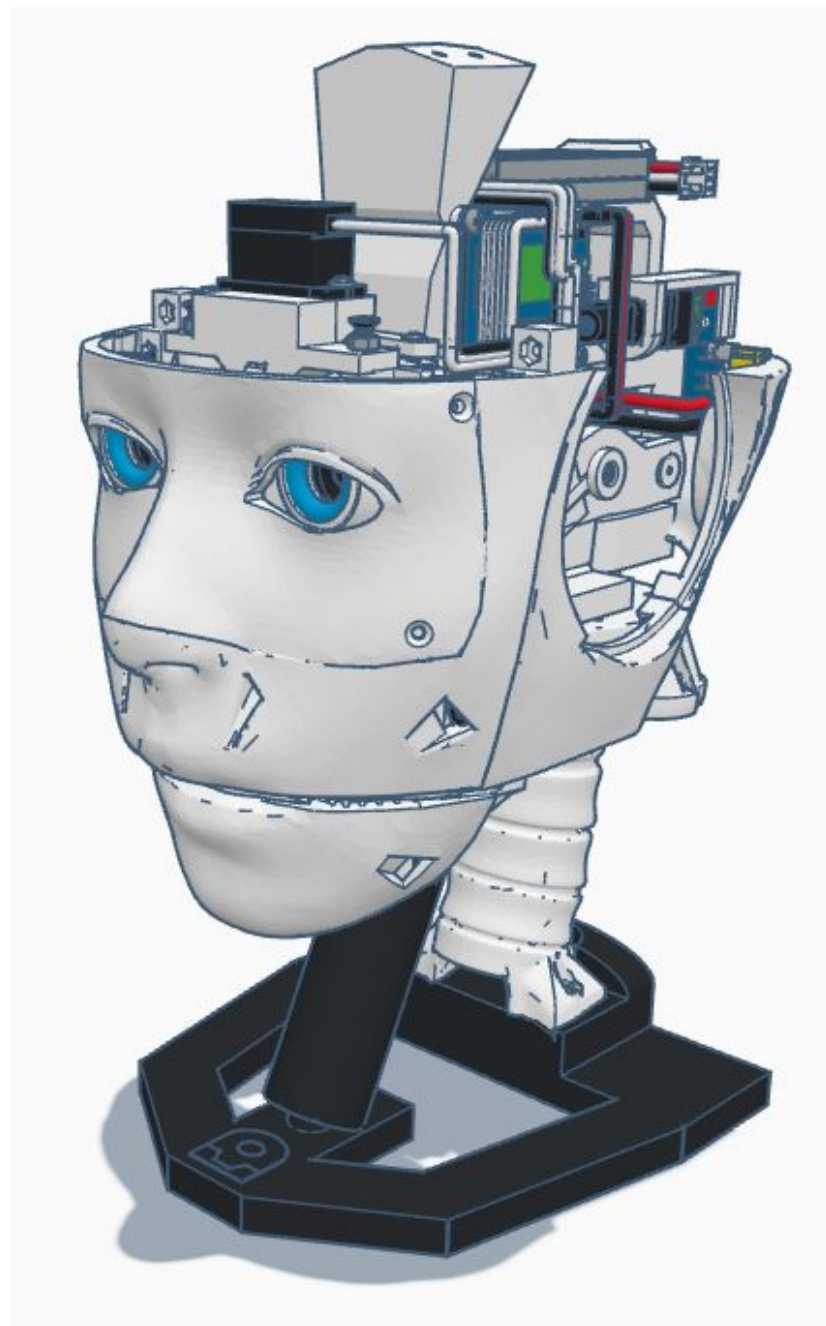
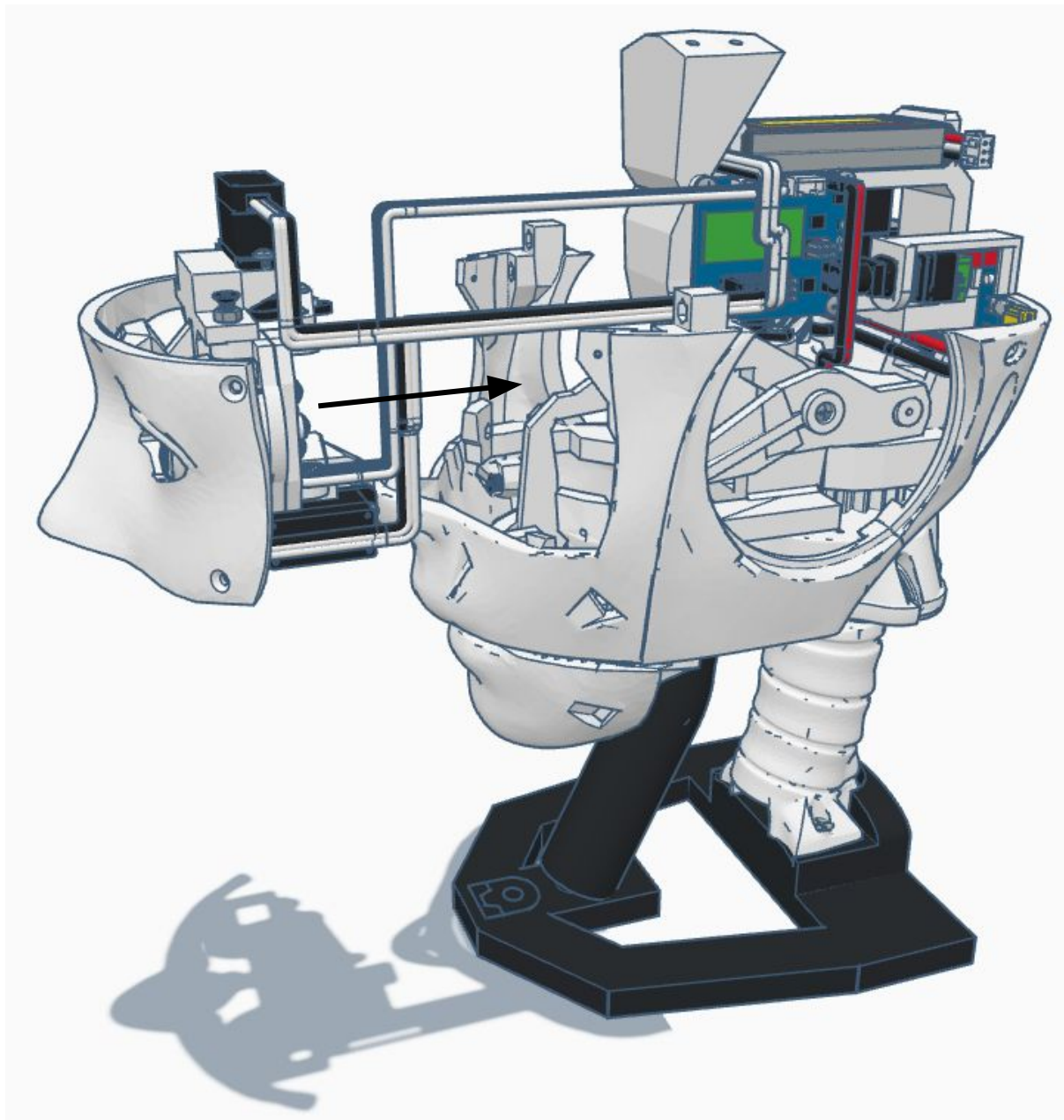




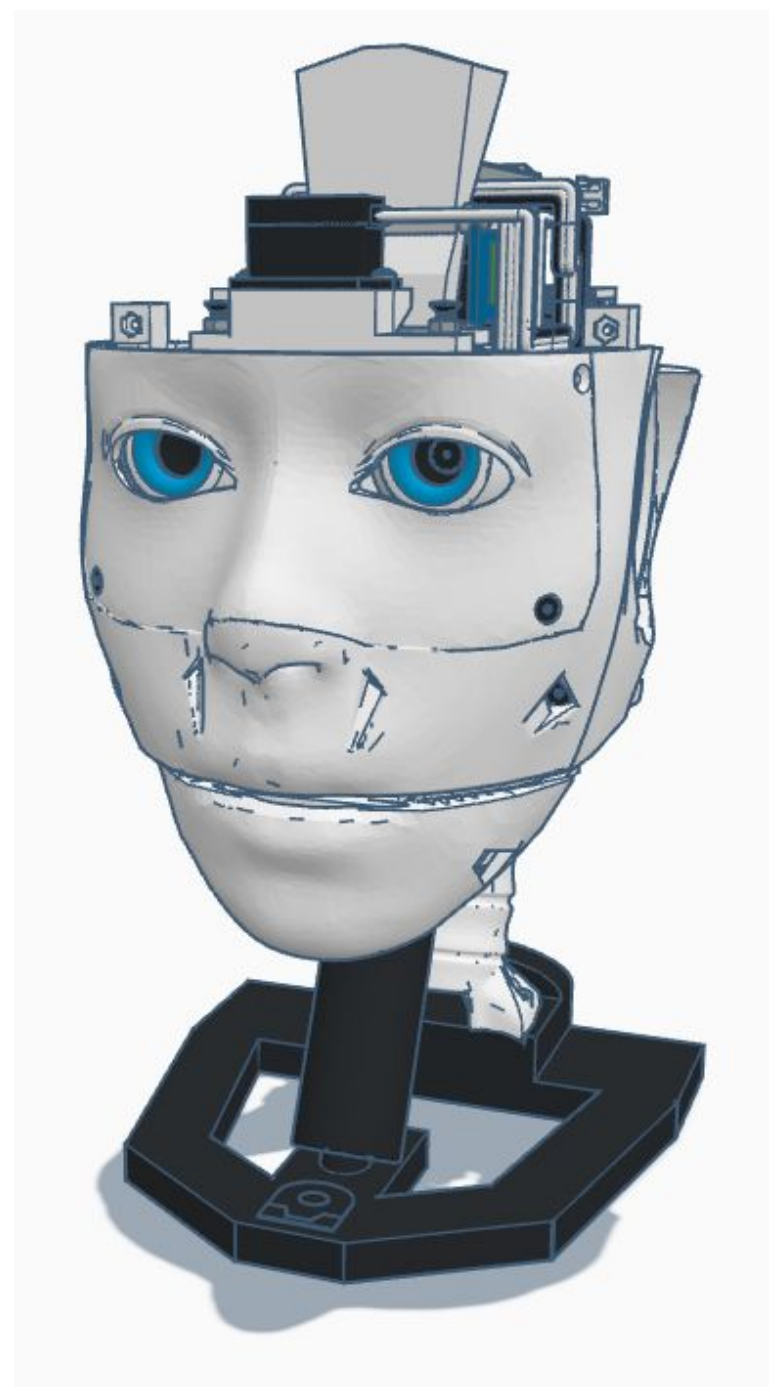
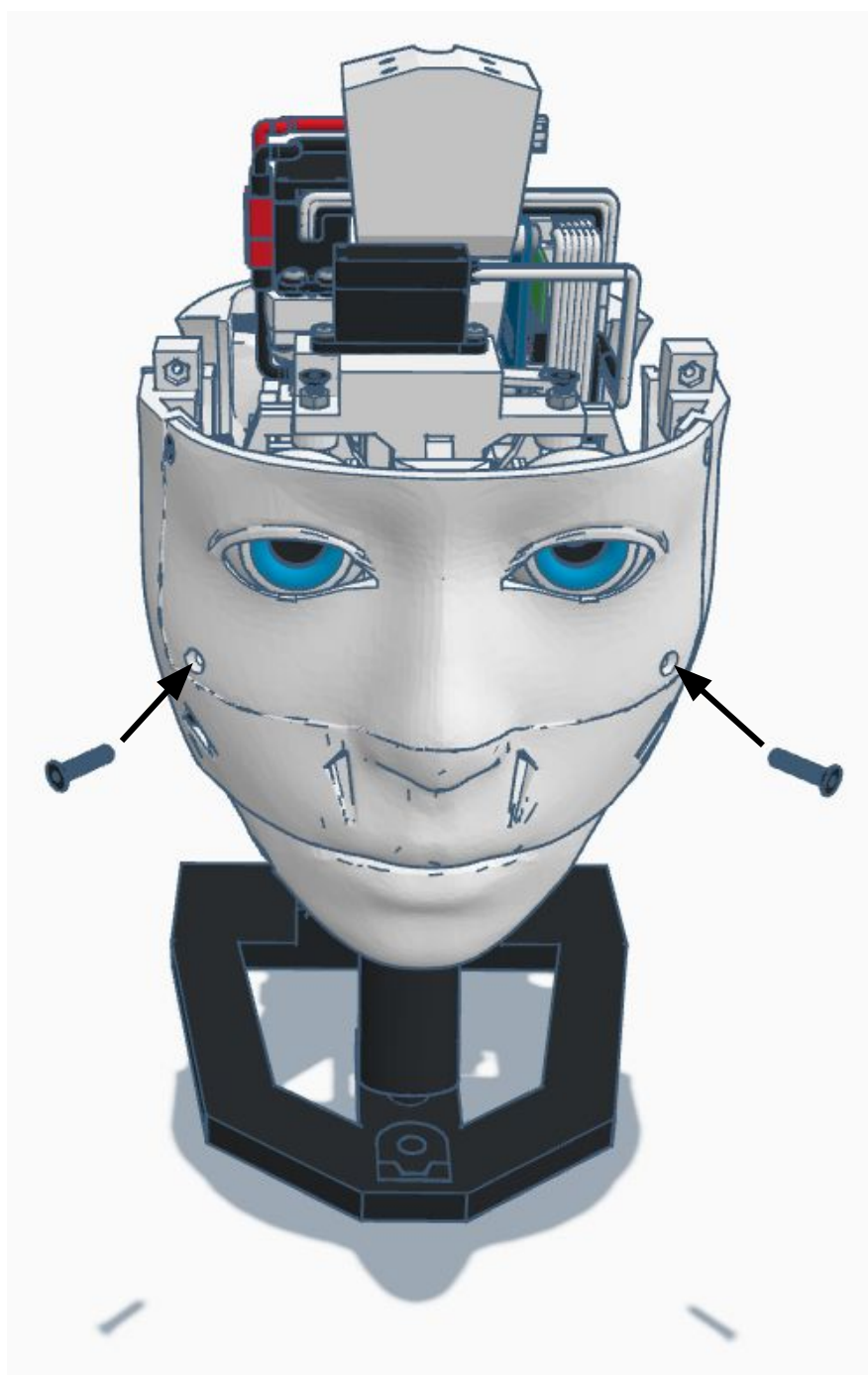


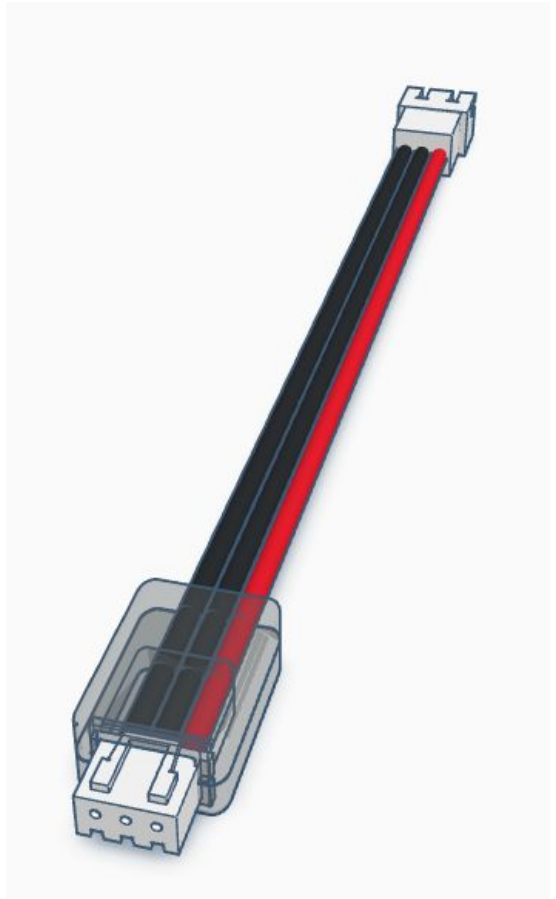
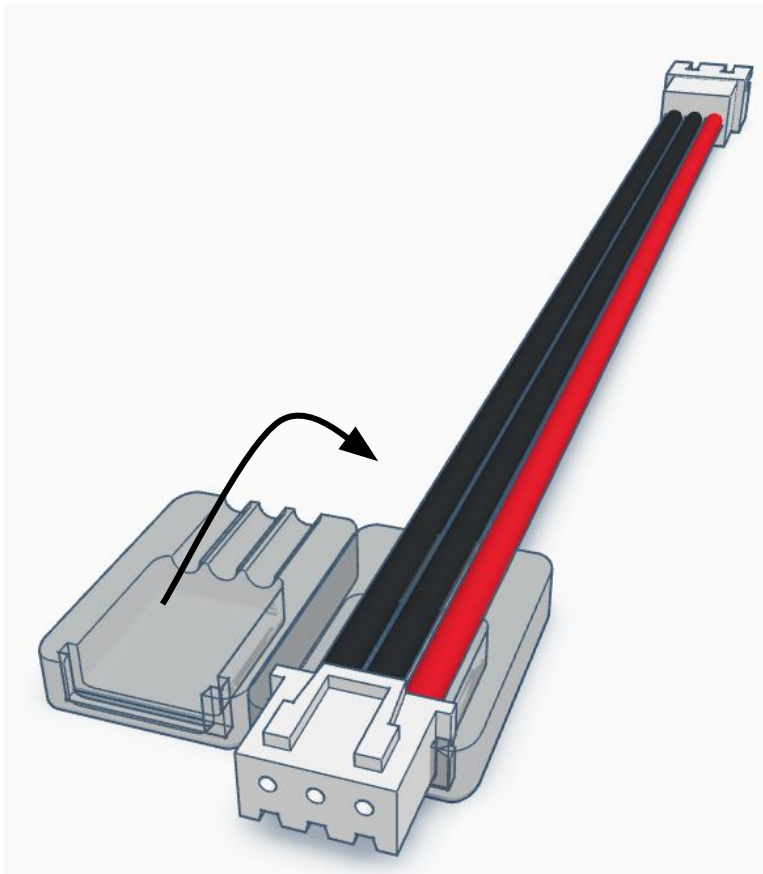
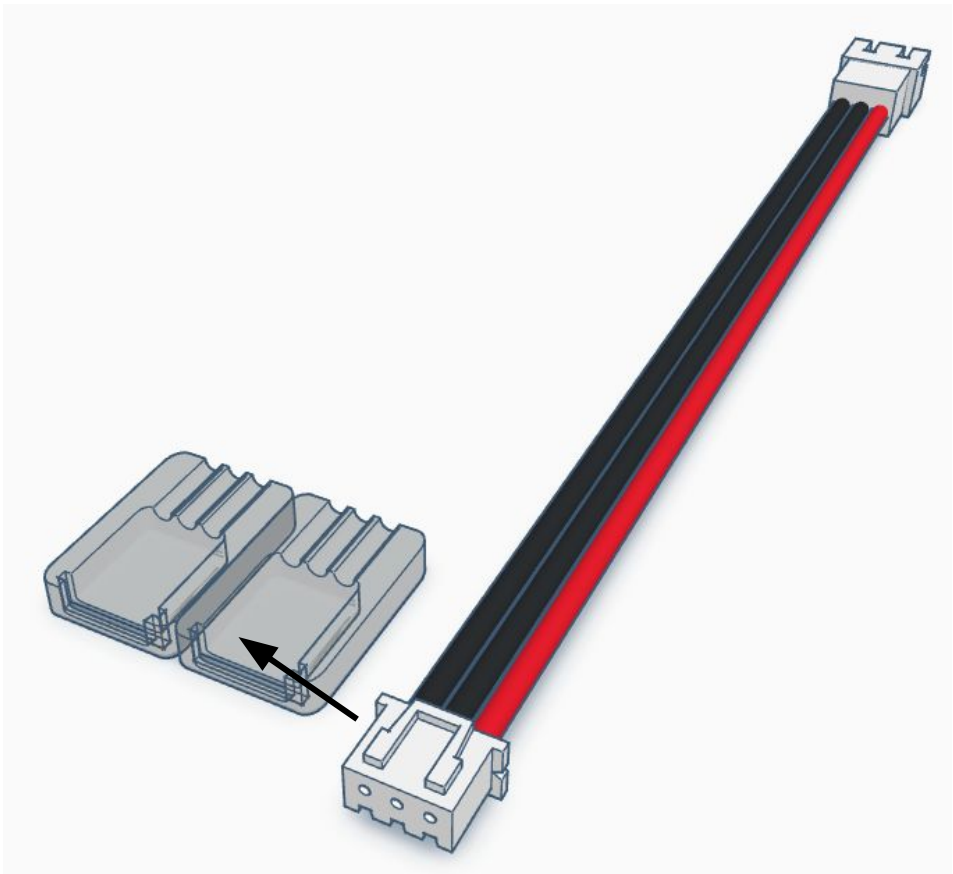
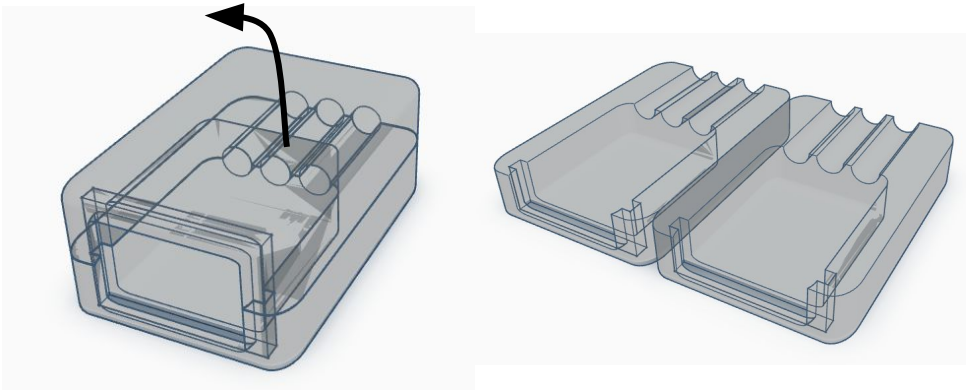


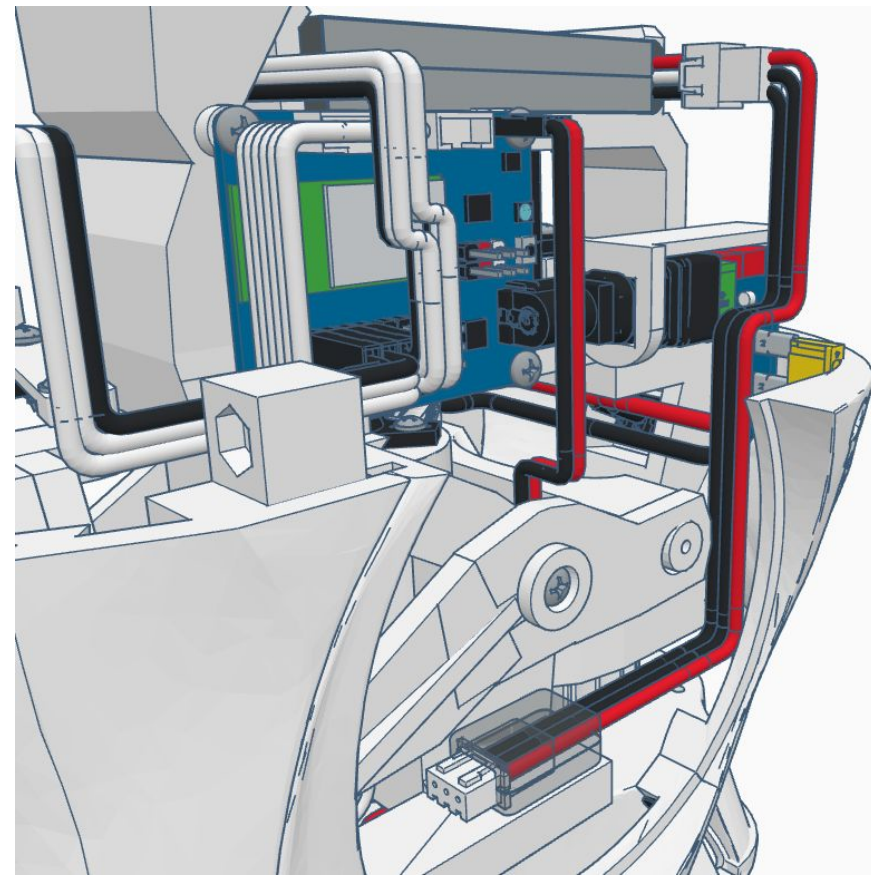
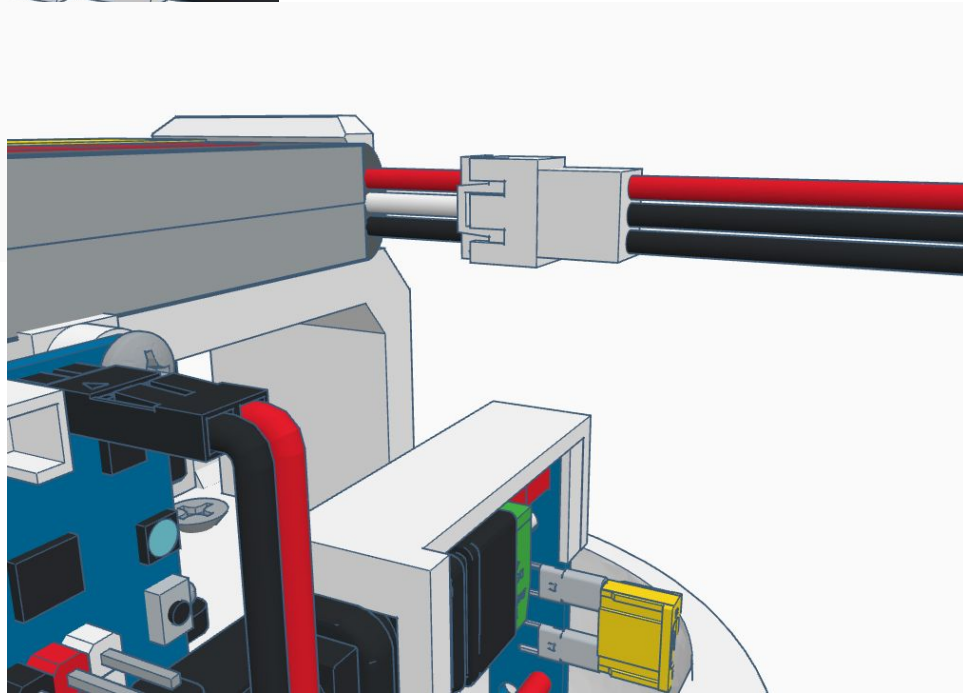
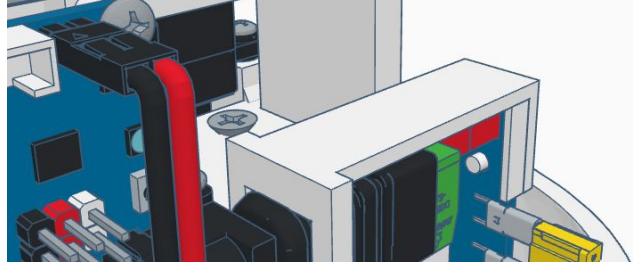
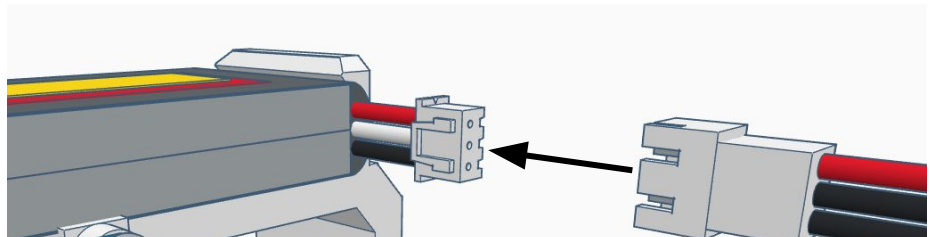




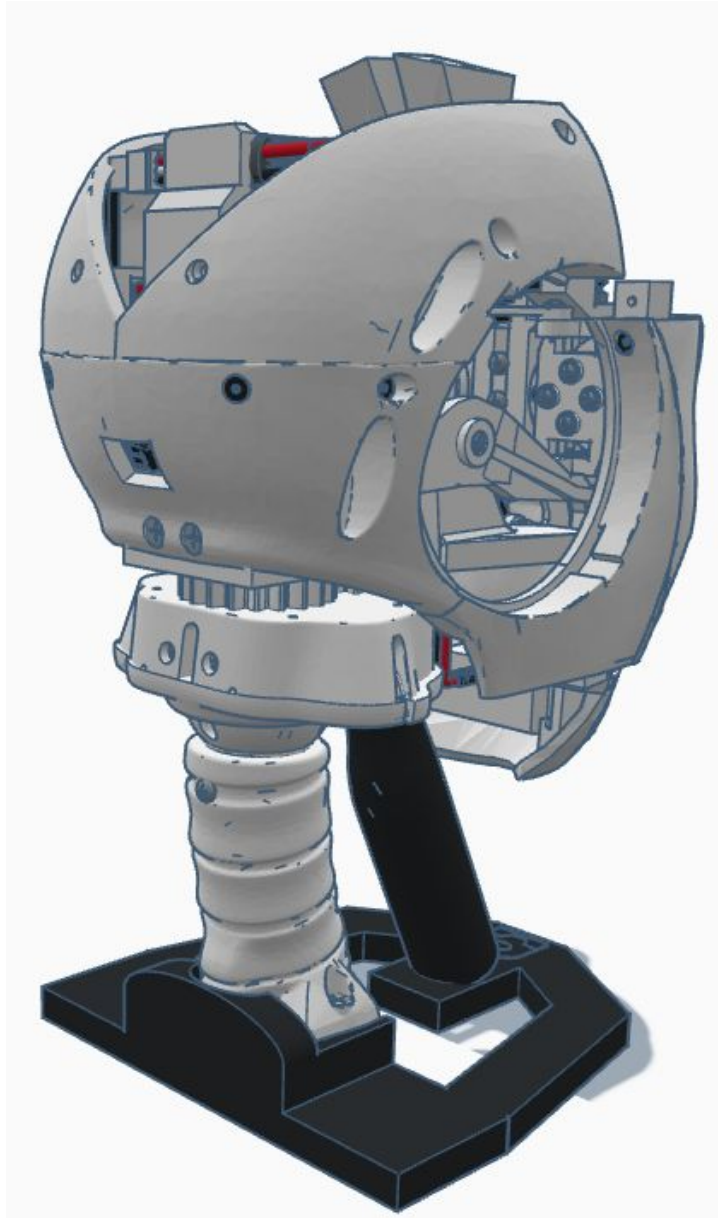
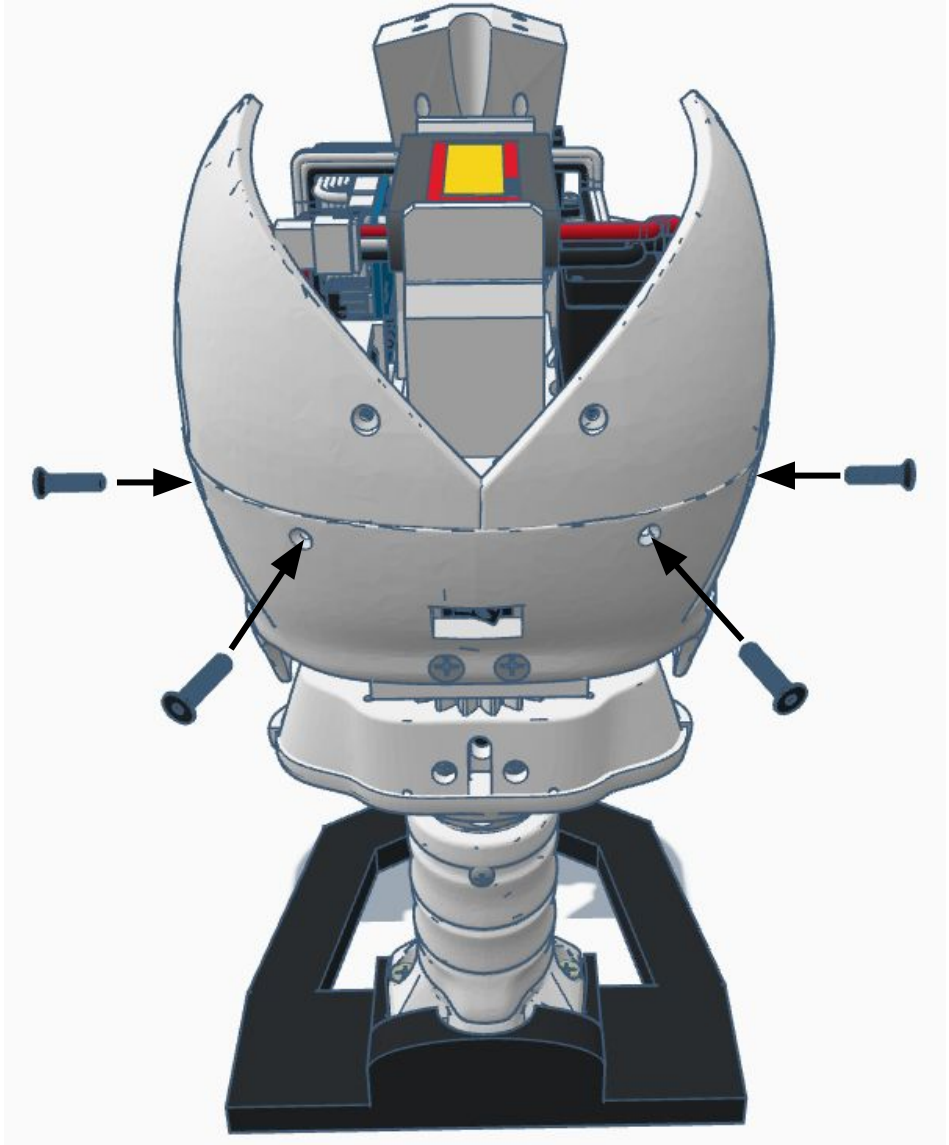
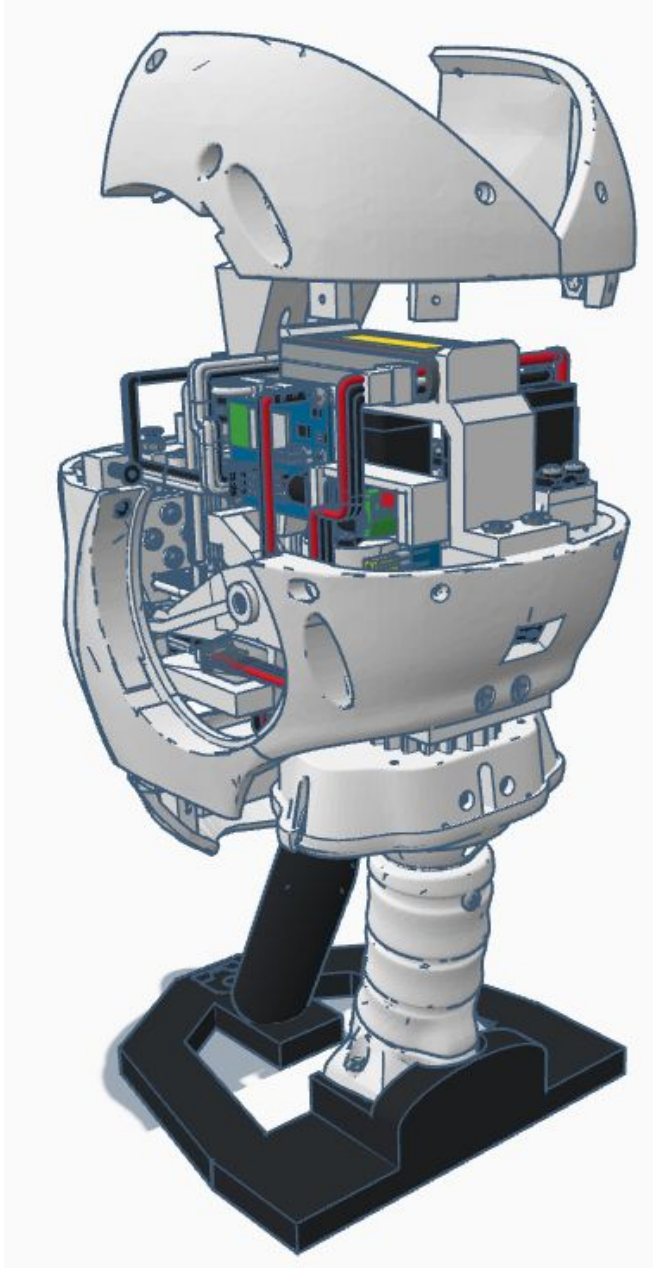
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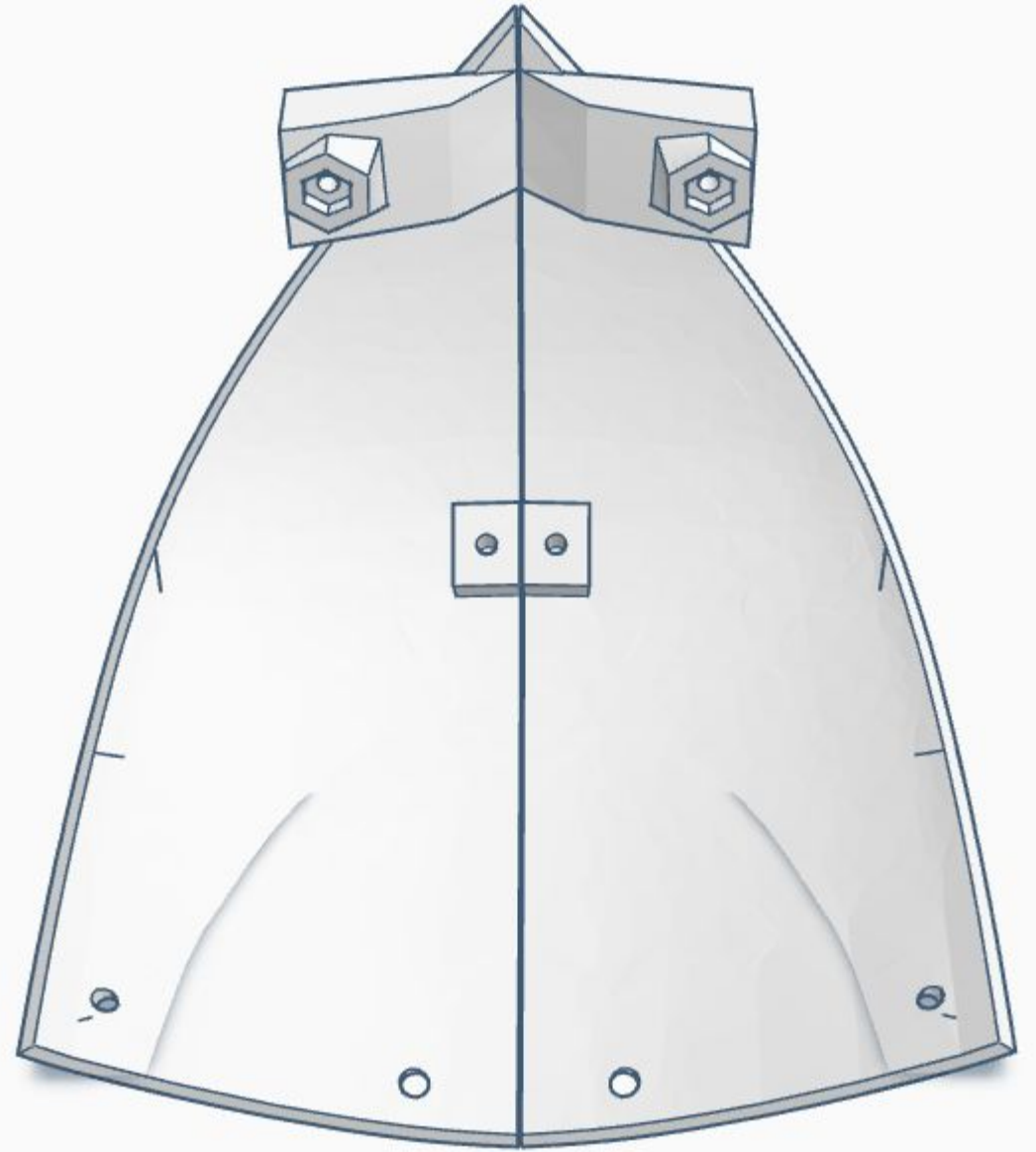
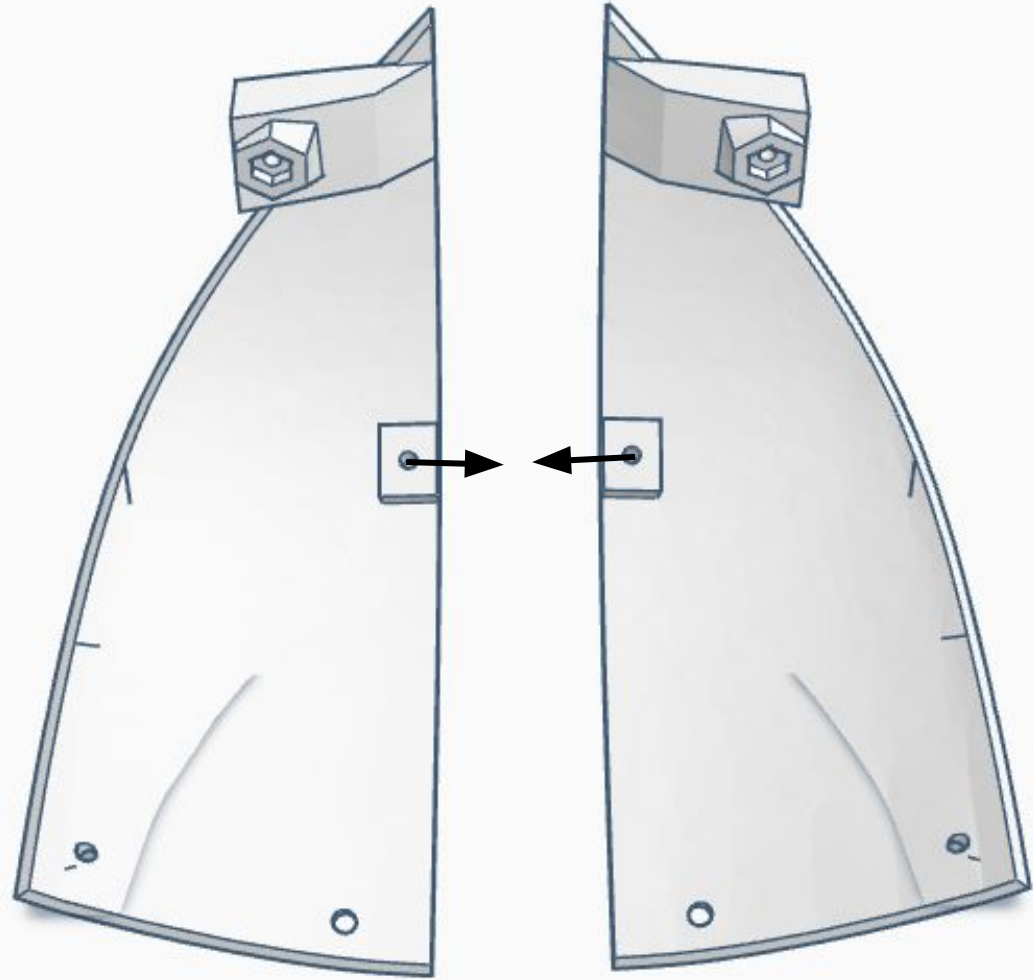




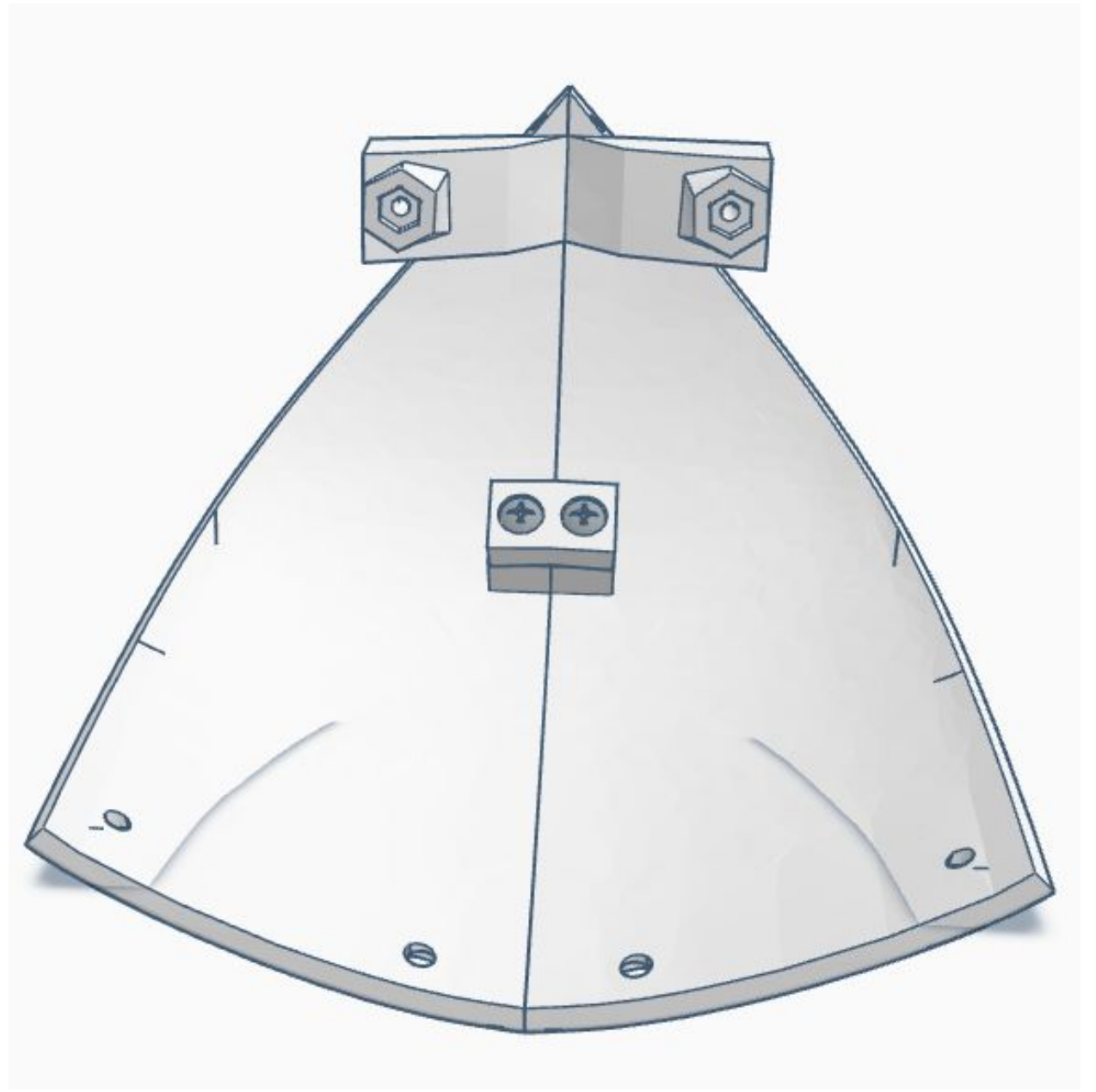
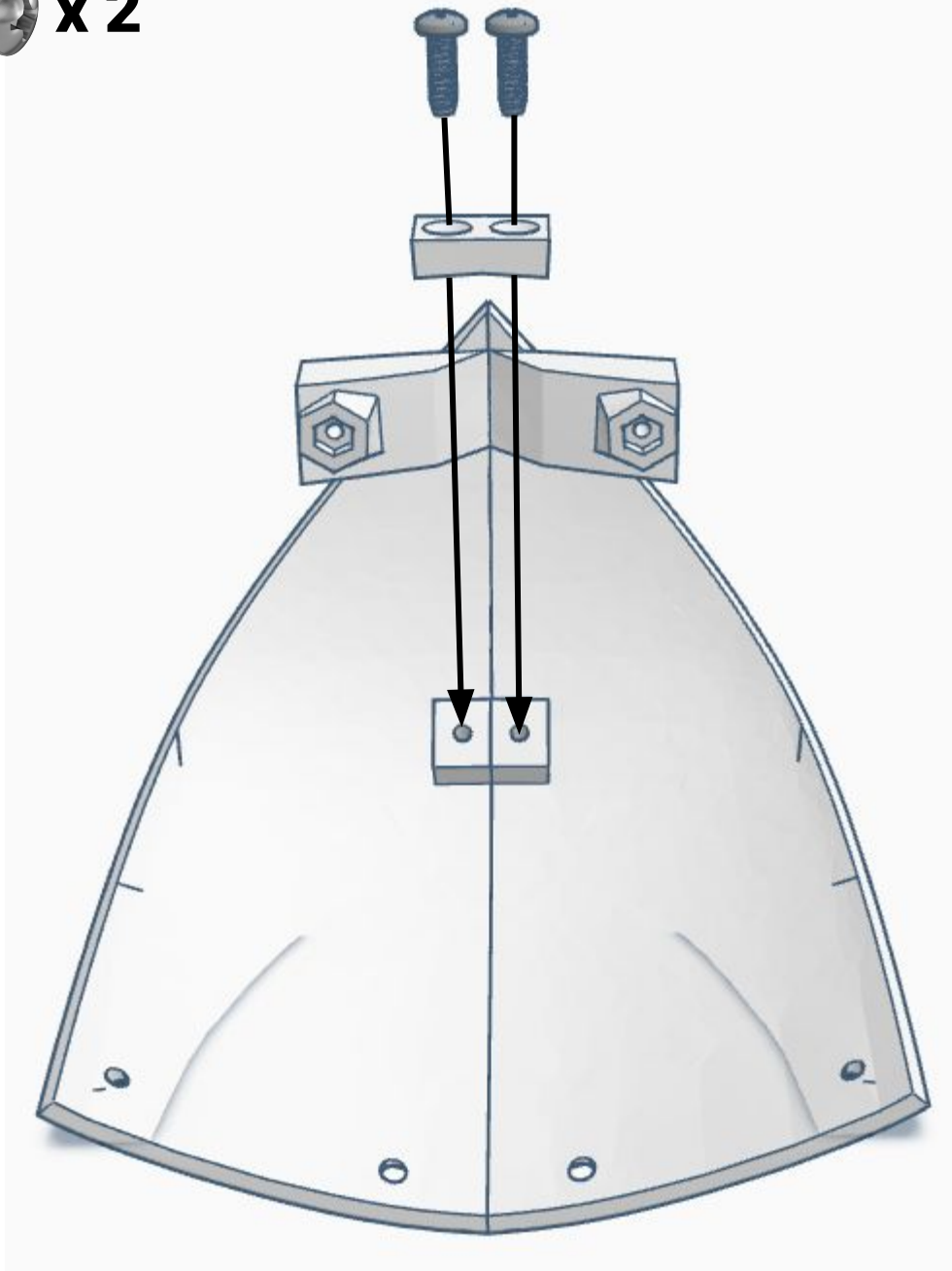


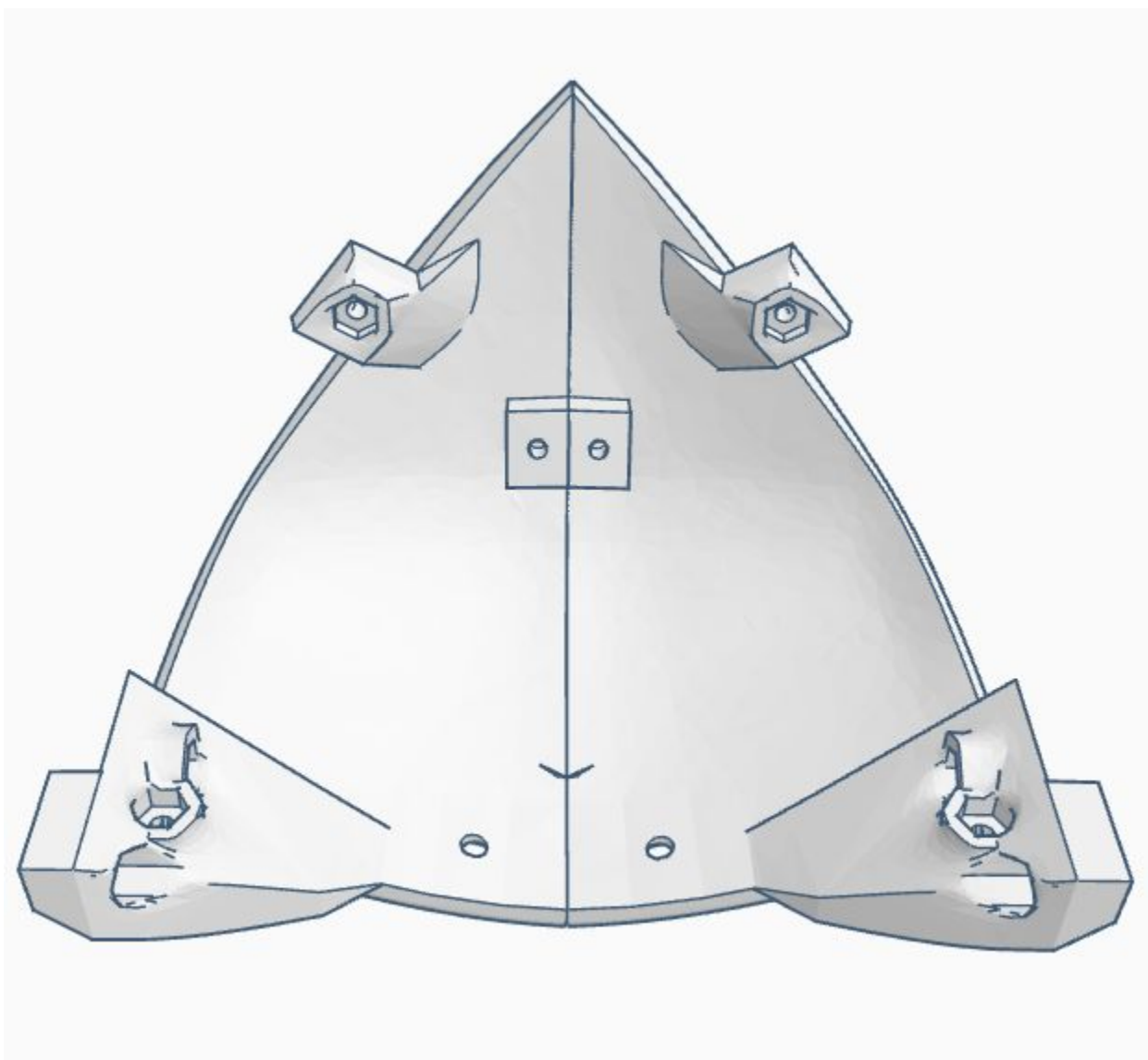
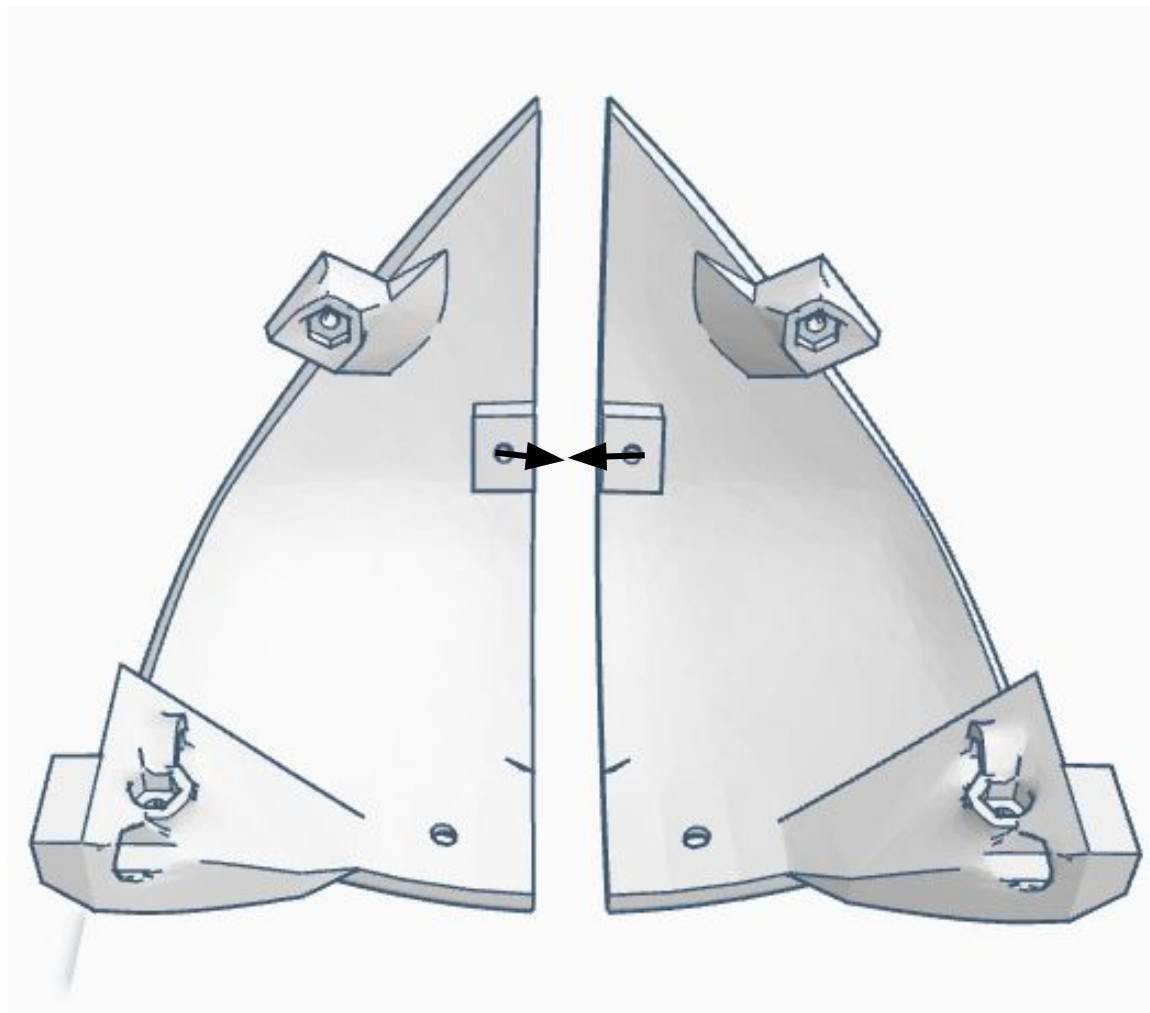
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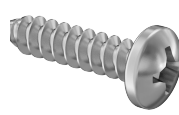


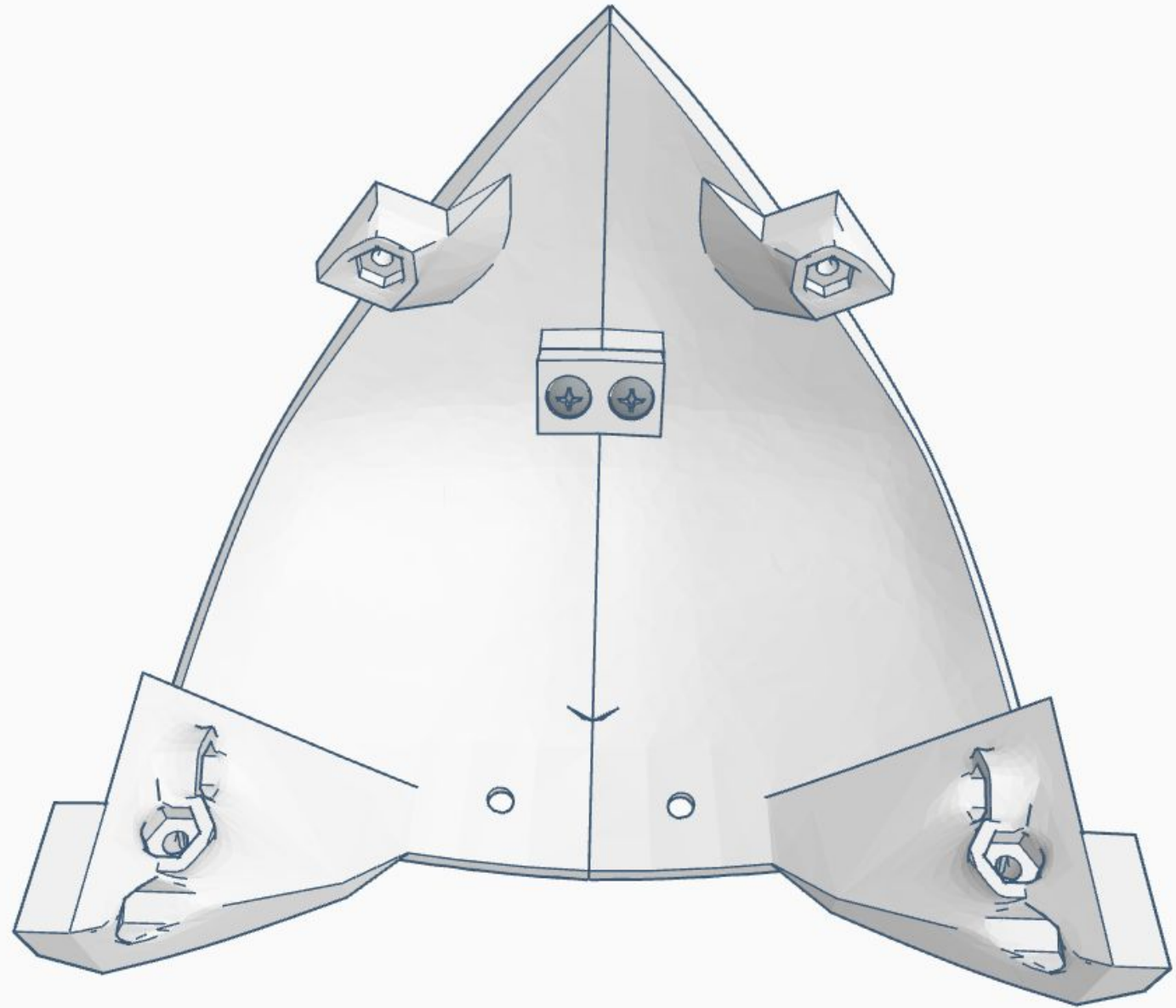
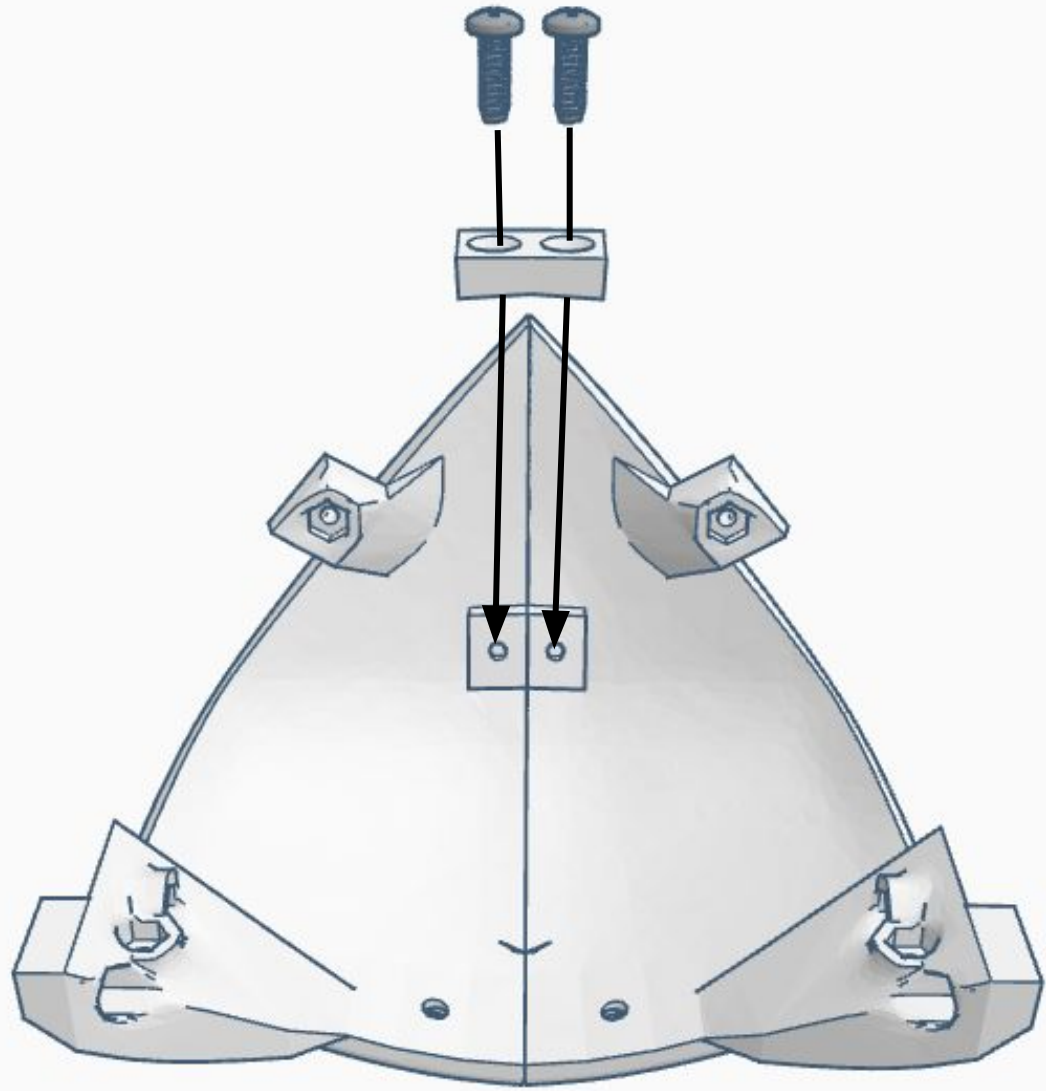


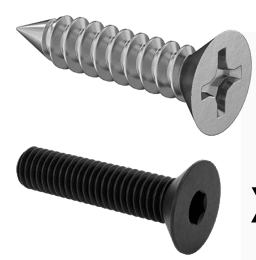
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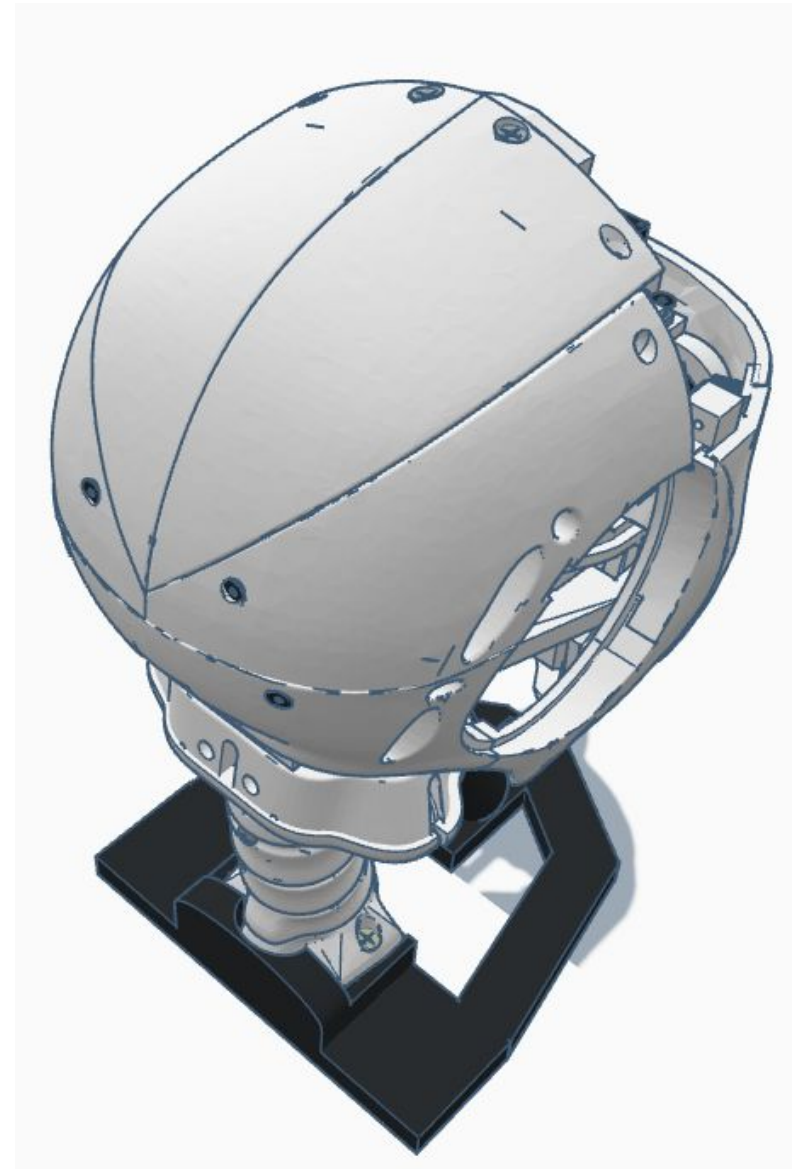
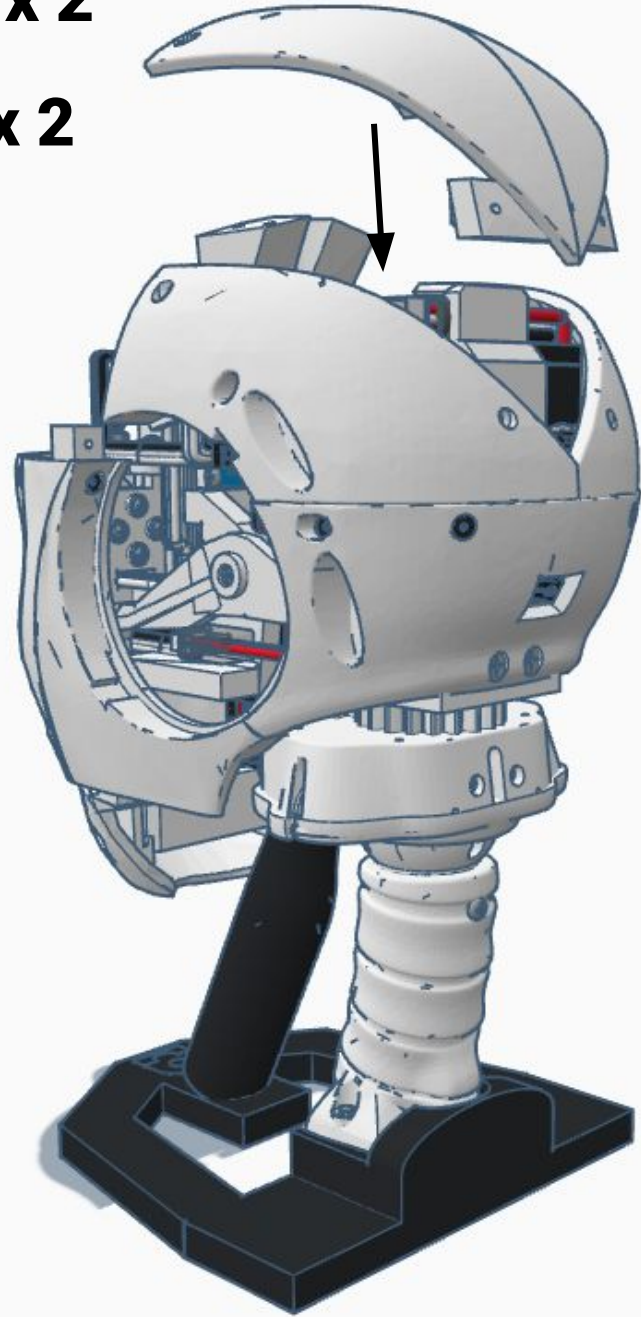


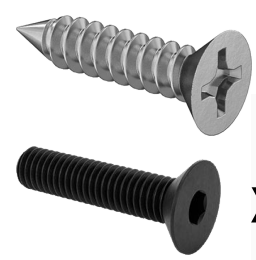


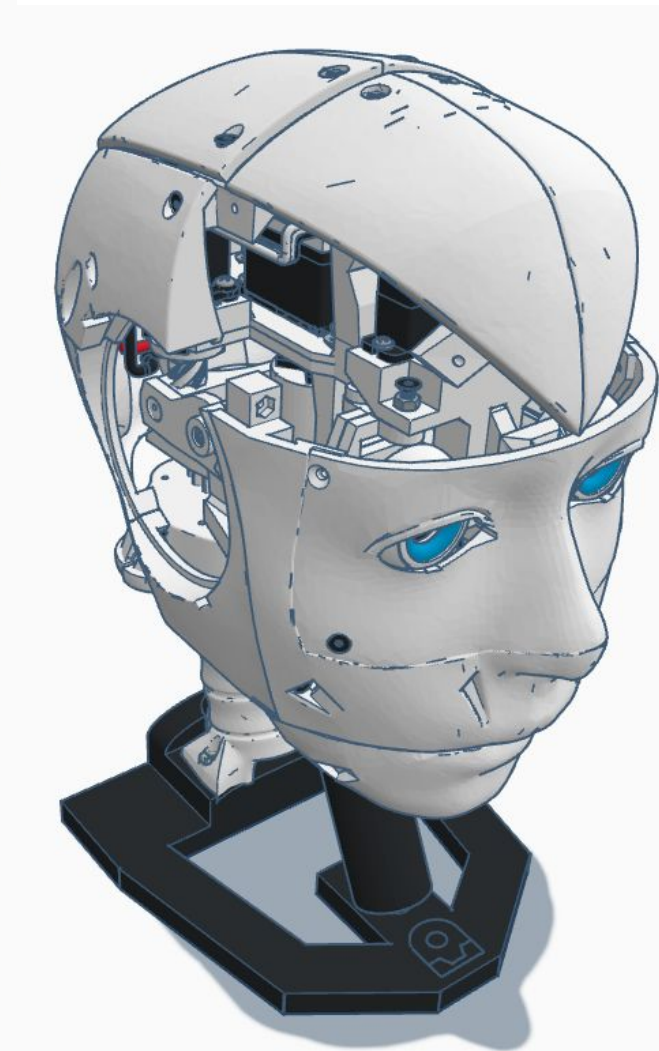
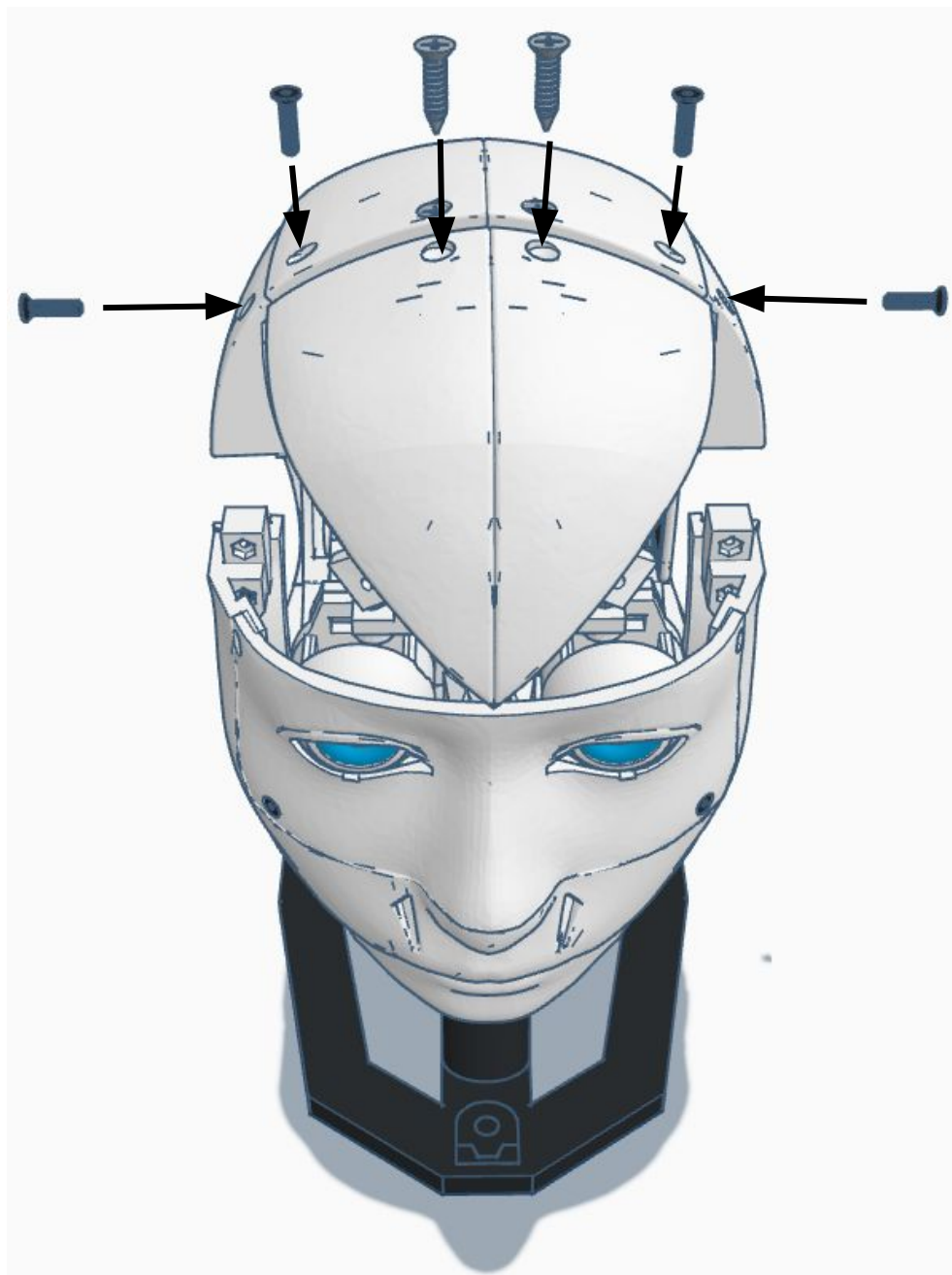
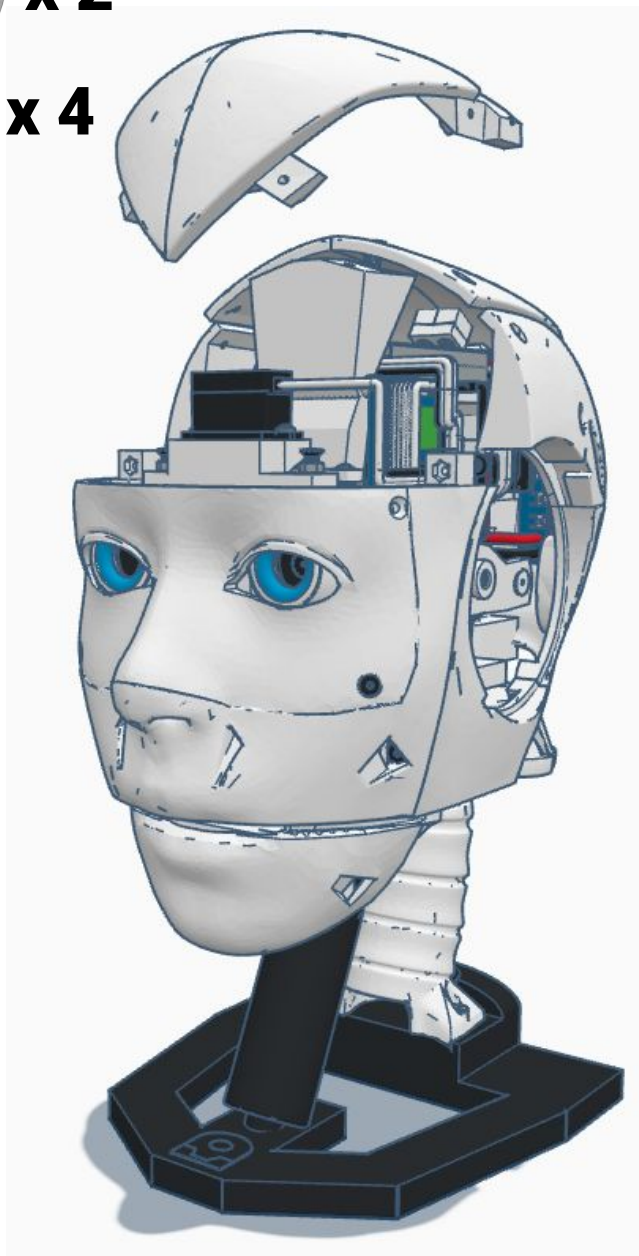
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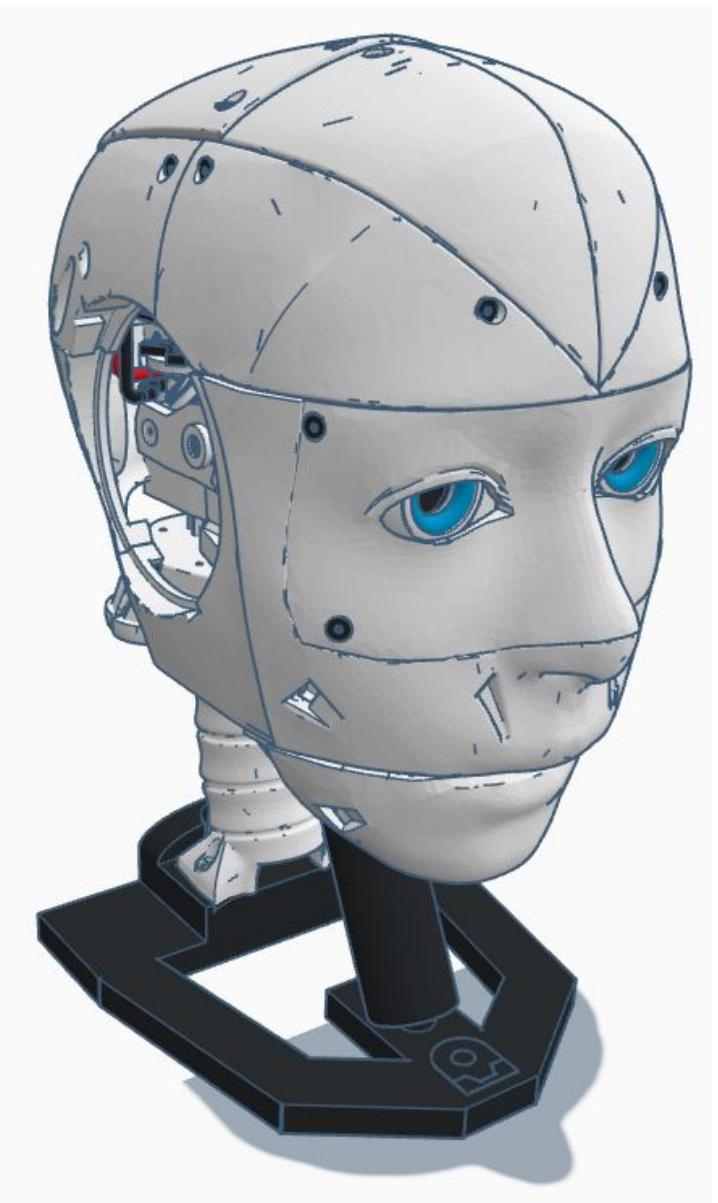
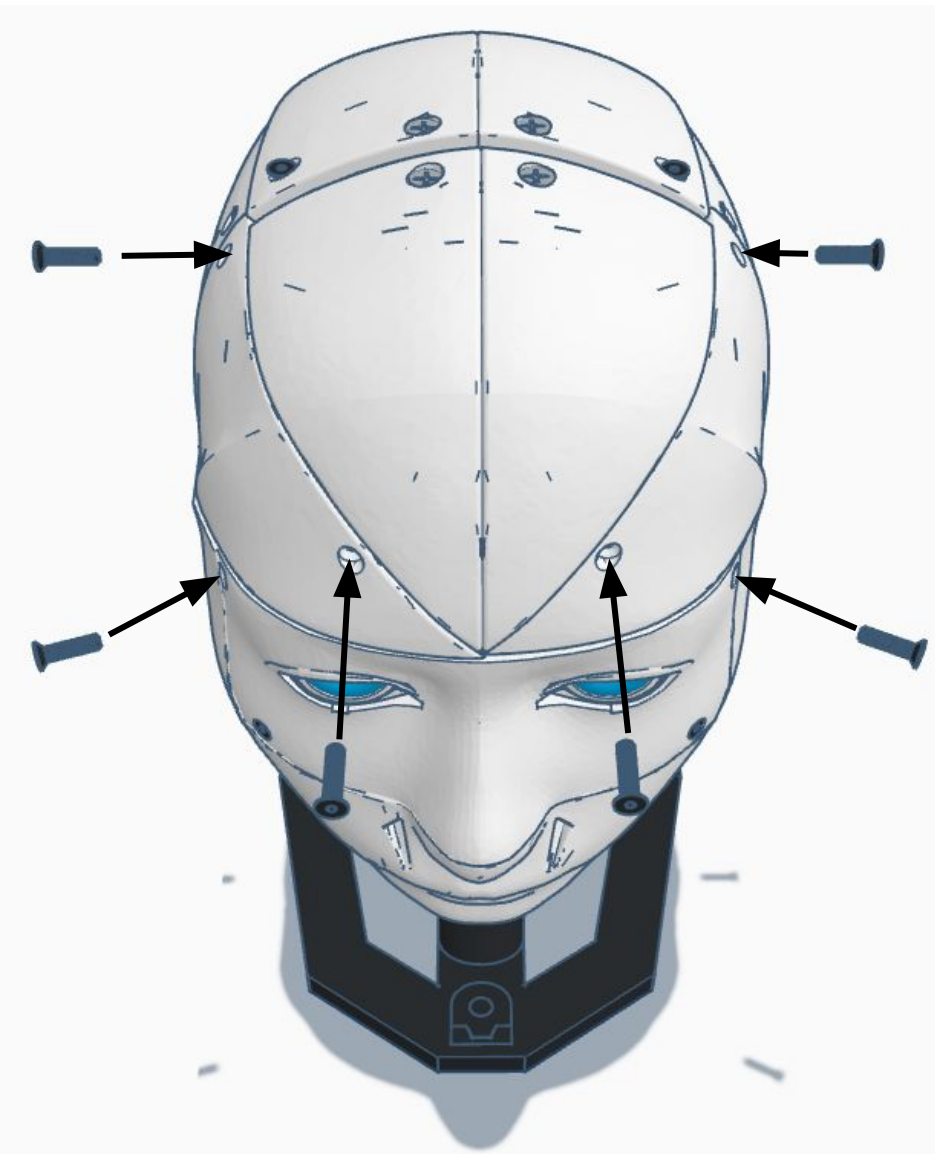
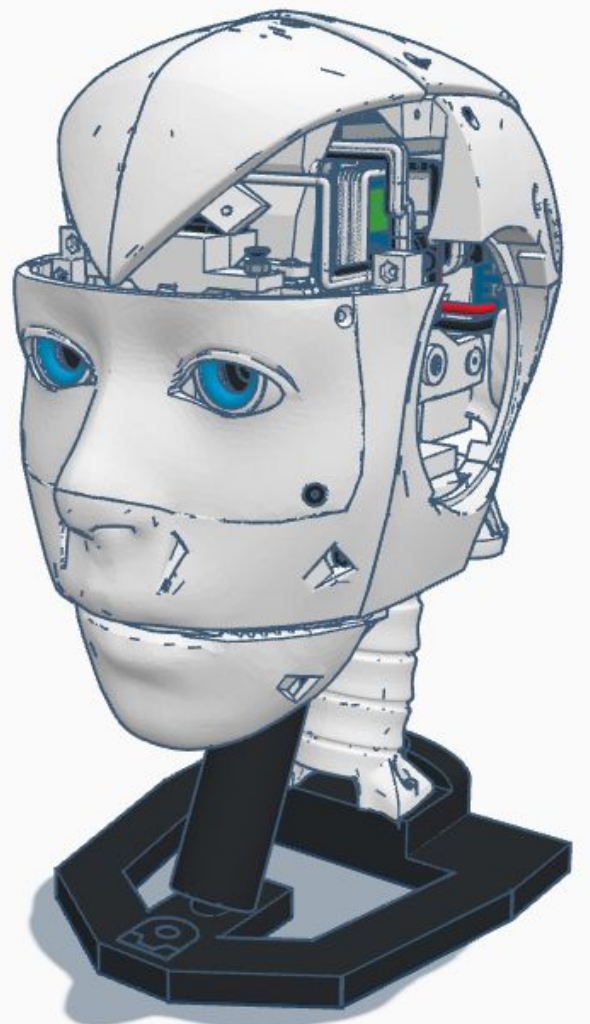
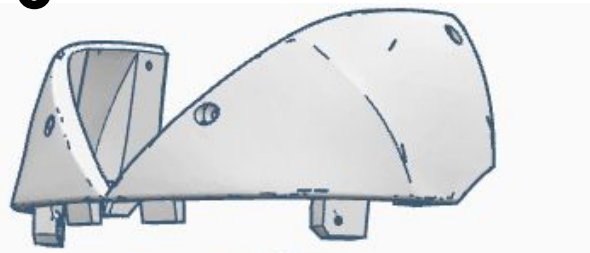
 **x 2**
x 2



 **x 2**
x 4



 x 6



 **x 2**

