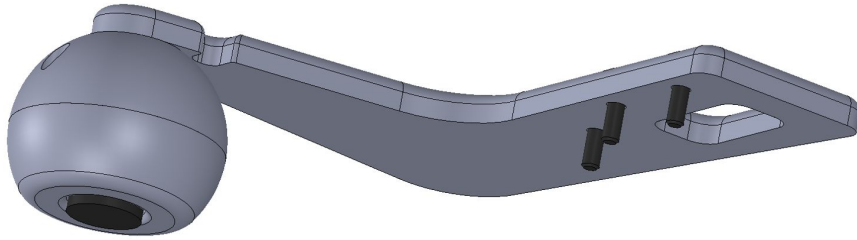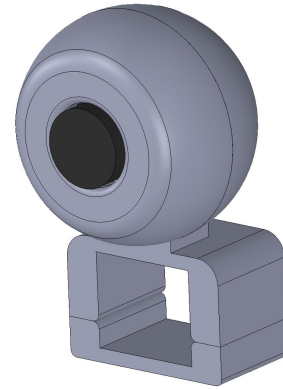# Stretch RE1 Teleop Kit Build

Rev 4.2022
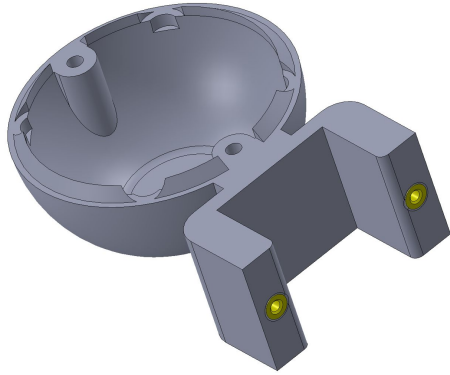
Head camera
module

Gripper camera
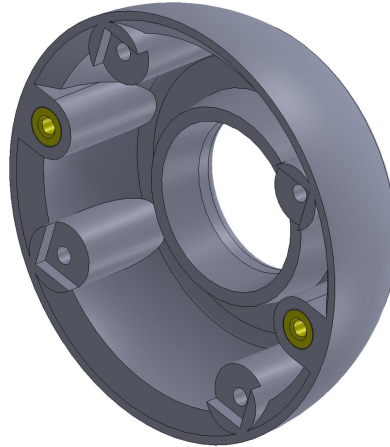module
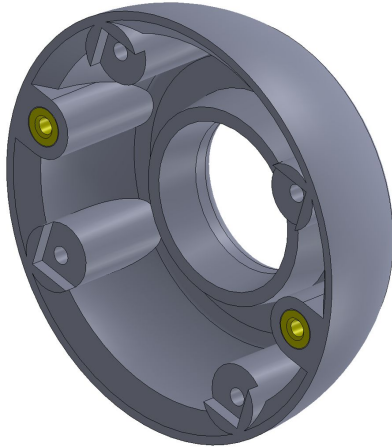
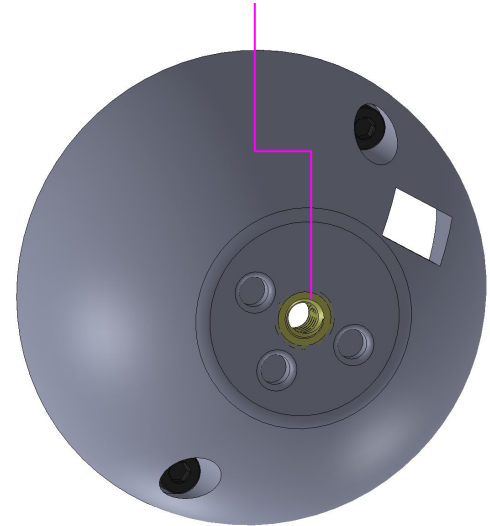| Hello Robot Part No	Vendor	Vendor Link	Vendor Part No	Qty	Notes
3DP-810_Head_Teleop_Mount	Hello Robot / Customer	N/A	3DP-810_Head_Teleop_Mount	1	3D printed PLA
3DP-808_Teleop_Camera_Mount_Front	Hello Robot / Customer	N/A	3DP-808_Teleop_Camera_Mount_Front	2	3D printed PLA
3DP-809_Head_Teleop_Mount_Back	Hello Robot / Customer	N/A	3DP-809_Head_Teleop_Mount_Back	1	3D printed PLA
3DP-812_Gripper_Teleop_Mount_Bottom	Hello Robot / Customer	N/A	3DP-812_Gripper_Teleop_Mount_Bottom	1	3D printed PLA
3DP- 811_Gripper_Teleop_ Mount_Back	Hello Robot / Customer	N/A	3DP- 811_Gripper_Teleop_ Mount_Back	1	3D printed PLA
HDW-205_96817A268_M2.5x8mm_Thread_Forming	McMaster	https://www.mcmaster.com/96817A268/	96817A268	8	
HDW-211_94180A321_M2.5x3.4mm_Heat_Set_Insert	McMaster	https://www.mcmaster.com/94180A321	94180A321	6	
HDW-316_91290A103_M2.5x10mm_SHCS	McMaster	https://www.mcmaster.com/91290A103	91290A103	6	
HDW-267_91239A140_M4x8mm_BHCS	McMaster	https://www.mcmaster.com/91239A140	91239A140	1	
HDW-330_94180A351_M4x4.7mm_HEAT-SET INSERT	McMaster	https://www.mcmaster.com/94180A351	94180A351	1	
HDW-802_91239A149_M4x14mm_BHCS_Black_Ox_Hex	McMaster	https://www.mcmaster.com/91239A149	91239A149	3	
ELE-801_Spinel_UC20MPE_F185_camera	Spinell	https://store.spinelelectronics.com/UC20MPE_F185	UC20MPE_F185	2	
CBL-701-USB_Teleop_Head	Hello Robot / Customer	N/A	CBL-701-USB_Teleop_Head	1	Custom USB A-JST ZH. Contact Hello Robot for details.
CBL-702-USB_Teleop_Wrist	Hello Robot / Customer	N/A	CBL-702-USB_Teleop_Wrist	1	Custom USB A-JST ZH. Contact Hello Robot for details.

Use a soldering iron to install the heat set inserts into the 4 PLA parts as shown
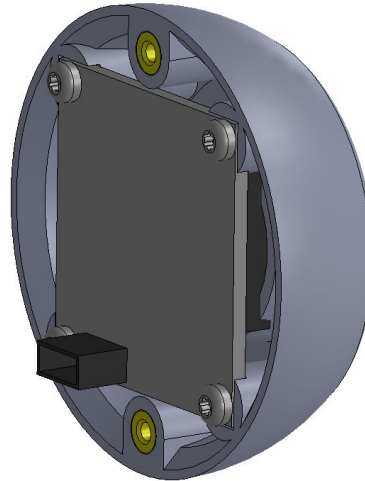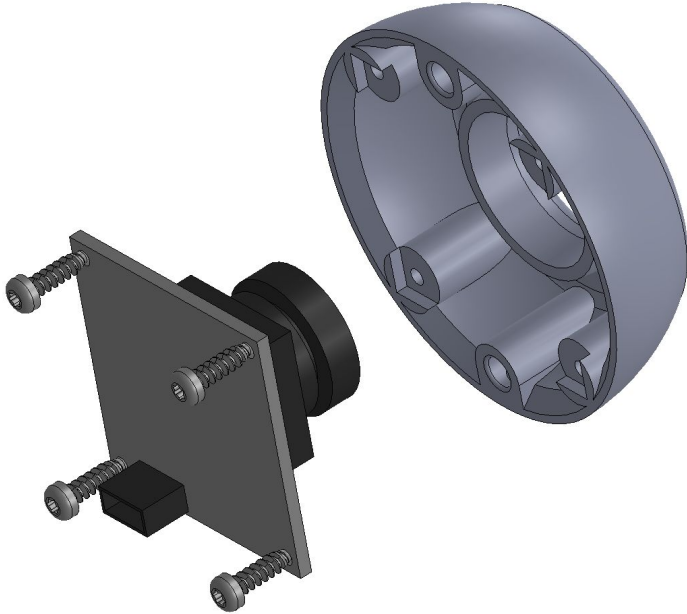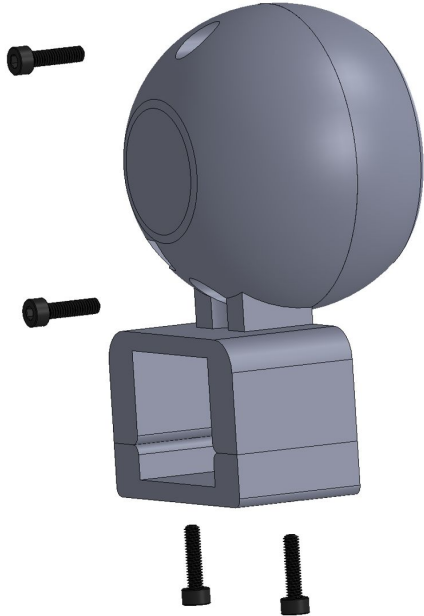
HDW-211_94180A321_M2.5 x3.4mm_Heat_Set_Insert

(x6)

HDW-330_94180A351_M4x4.7 mm_HEAT-SET INSERT

Install cameras using 8x self threading screws

Build 2 modules as shown

Wrist module

Attach CBL-702-USB_Teleop_Wrist to camera

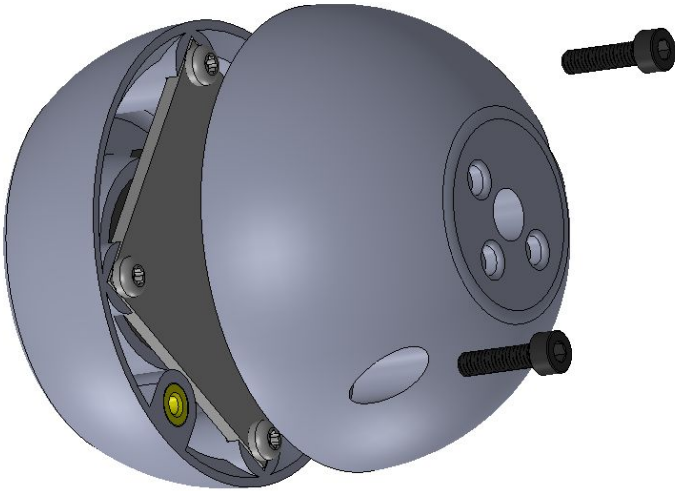Assemble wrist module as shown using x4 M2.5x10mm SHCS bolts

Wrist module

Clamp camera module to end of gripper as shown.

Connect USB-A of cable to RE1 wrist USB-A port

Head module

Attach CBL-701-USB_Teleop_Head to camera

Assemble head camera module using 2x M2.5x10mm SHCS bolts as shown

Head module

Attach the camera to the mount plate using M4x8mm BHCS

Attach the mount plate to the RE1 head using 3x M4x15mm BHCS

Plug USB-A of camera cable into head USB-A port