
Mini-Lab 1

Hardware Assembly Guide

UCLA MECH&AE C163C/C263C

1 - Bill of Materials

This section contains a list of the required parts for Mini-Lab 1. Please ensure you have all required parts as well as a USB cable with a micro-USB connector on one end.

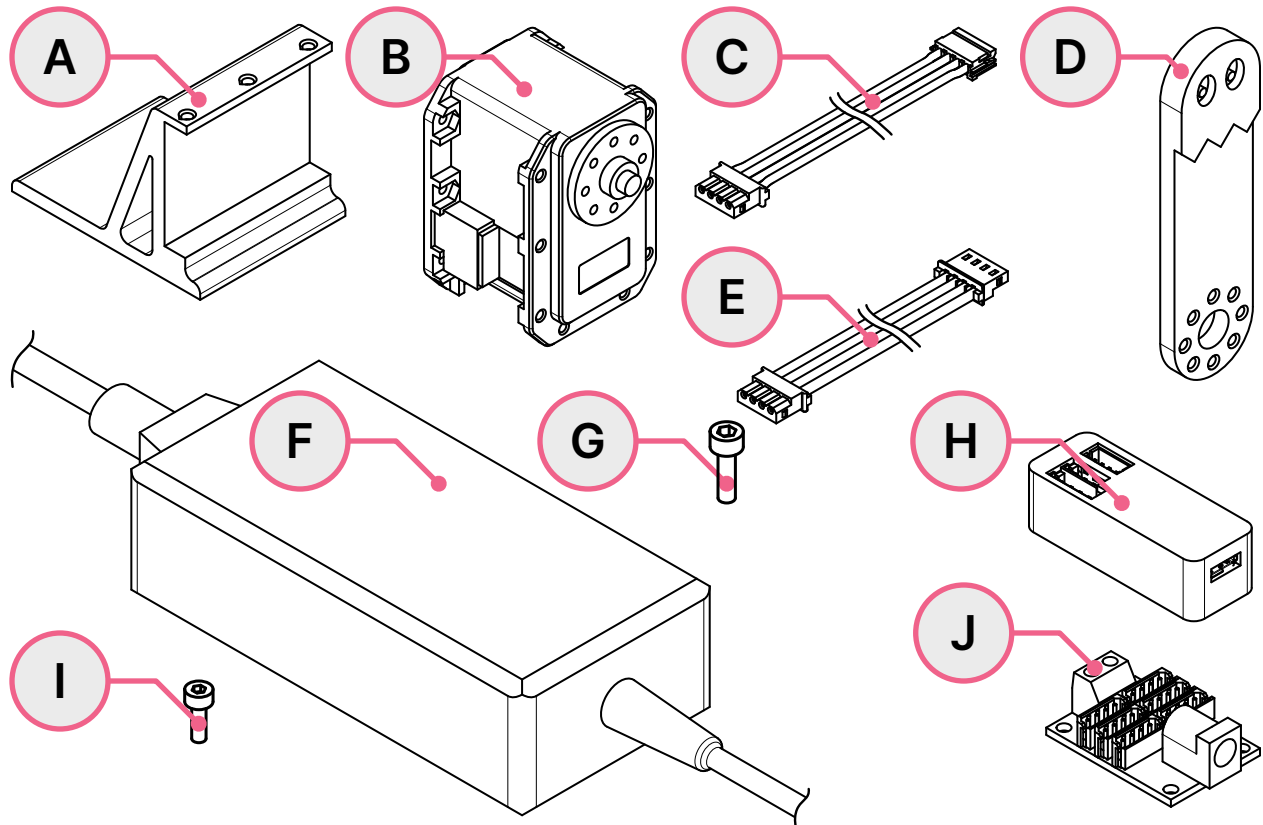
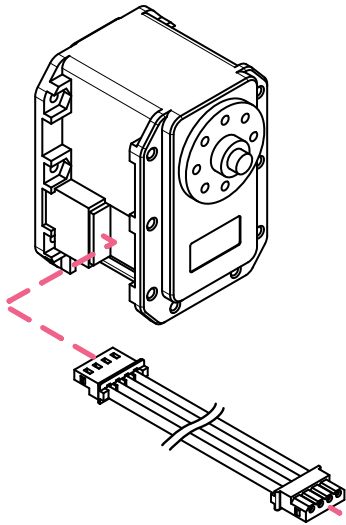


Table 1 - Bill of Materials

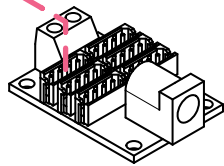
Part ID	Description	Quantity
A	Motor Table Mounting Bracket	2
B	Dynamixel MX28-AR	1
C	JST EHR-4 to Molex 22035045 Connector Wire	1
D	Link	1
E	Molex 22035045 to Molex 22035045 Connector Wire	1
F	12 V Power Adapter	1
G	M2.5 × 8mm Screw	≥4
H	U2D2	1
I	M2 × 6 mm	≥2
J	6-Port Dynamixel Power Hub	1

2 - Assembly Instructions

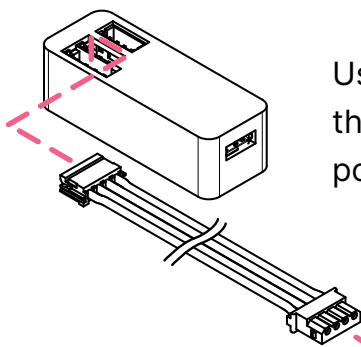
Step 1 - Connect Motor and Power Hub



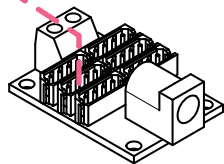
Use Part E (wire with same connectors on both ends) to connect either port on Part B (motor) to any of the ports on part J (Dynamixel power hub).



Step 2 - Connect U2D2 to Power Hub



Use Part C (wire with different connectors) to connect the 4-Pin RS-485 port on Part H (U2D2) to any available port on part J (Dynamixel power hub).

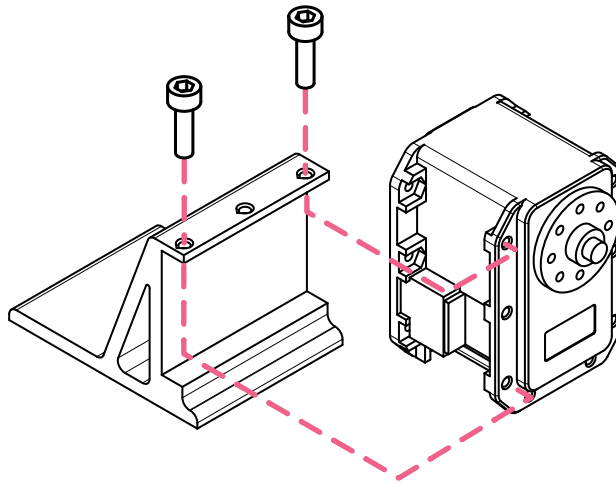


Step 3 - Attach Mounting Brackets to Motor

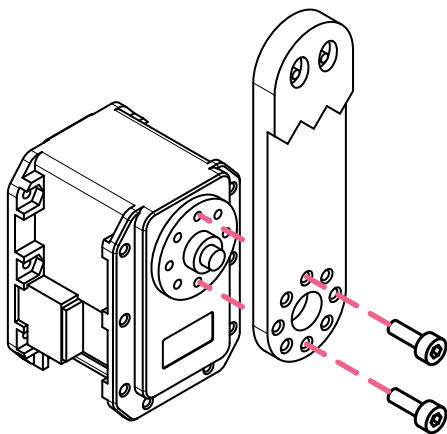
Use at least two Part G screws (M2.5) to connect a Part A (mounting bracket) to the Part B (motor).

Repeat for the other mounting bracket and side of Part B (motor).

Clamp the mounting brackets to a stable surface (e.g. a desk).



Step 4 - Attach Link to Motor

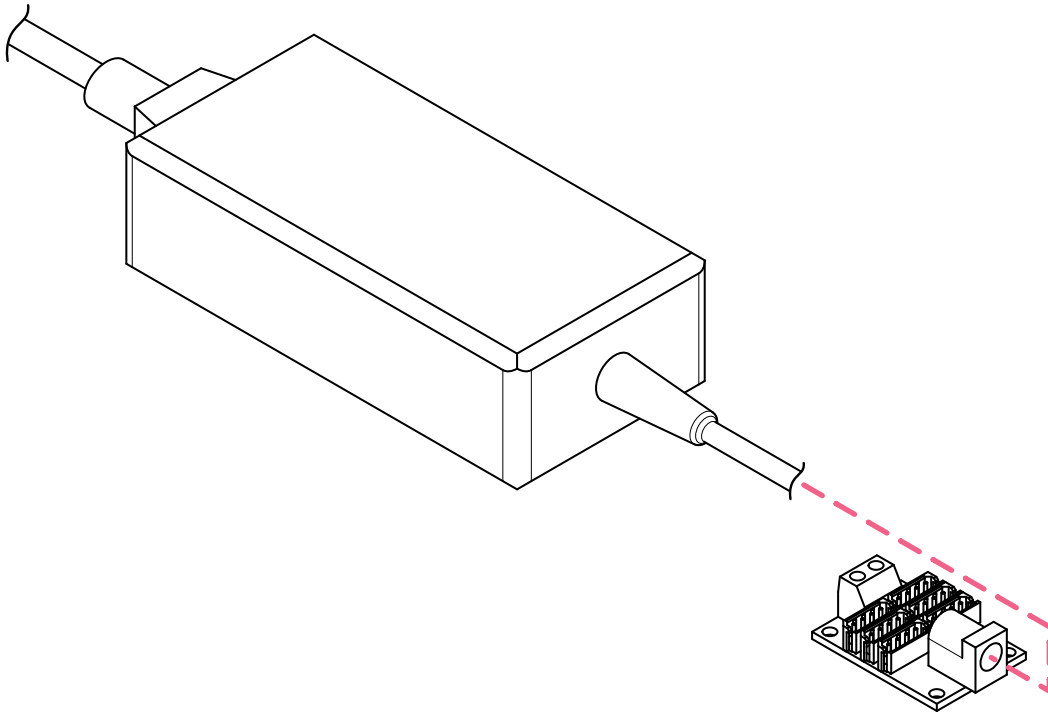


Use at least two Part I screws (M2) to connect a Part D (link) to the Part B (motor).

Step 5 - Connect Power Hub

Plug the three-pronged wall socket connector end of Part F (power adapter) into a wall outlet.

Plug the barrel connector end of Part F (power adapter) into the barrel connector of Part J (Dynamixel power hub).



Step 6 - Connect U2D2 to Computer

Connect Part H to your computer using a USB cable with a micro-USB connector on one end.