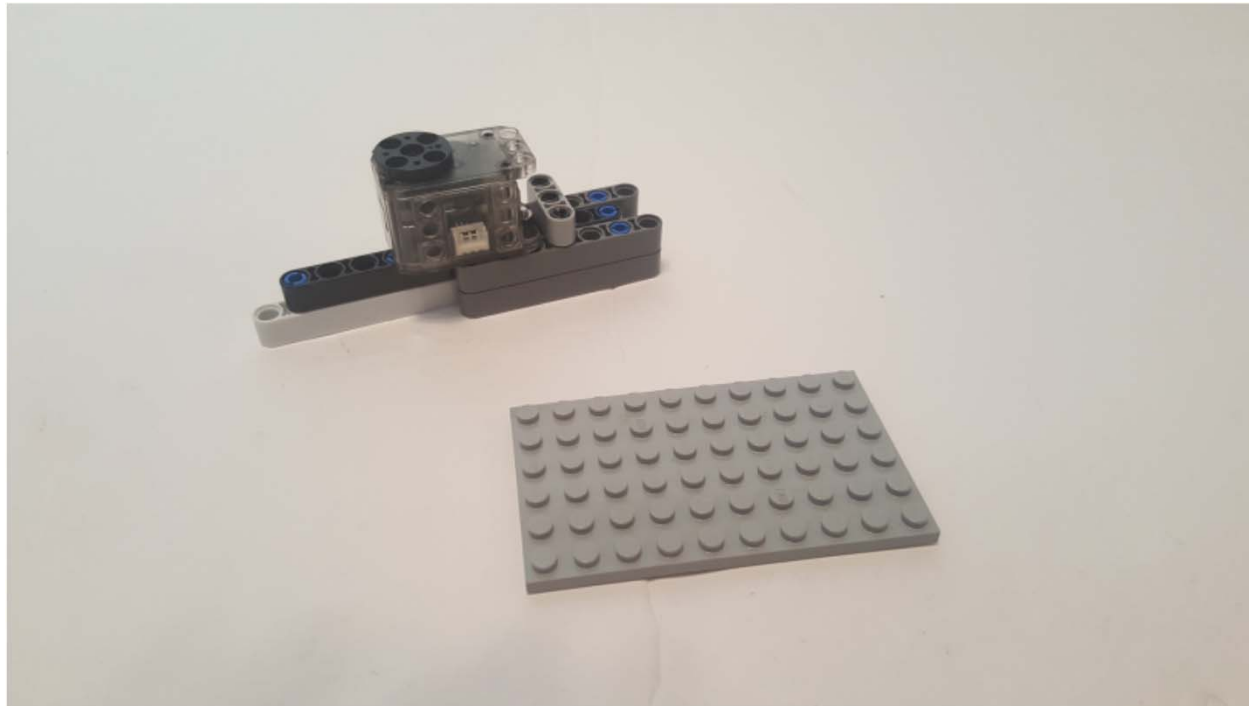# Dynamixel XL-320 Servo Mount for Lego
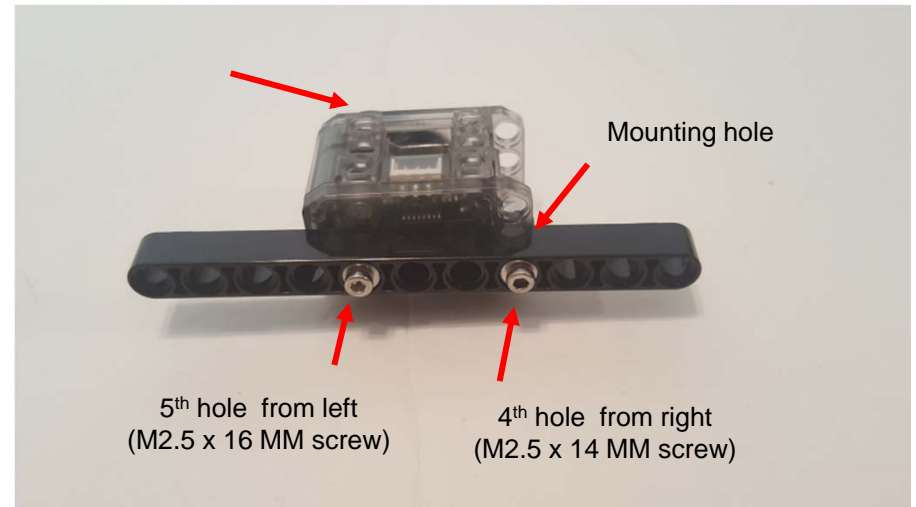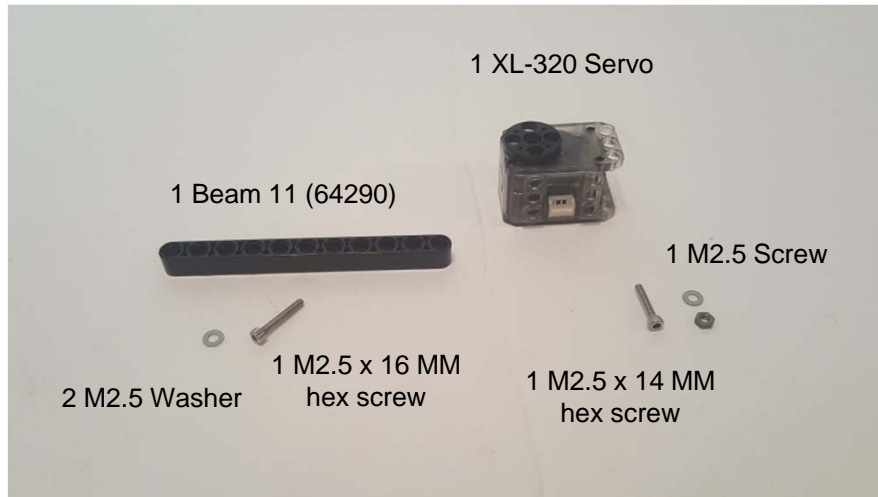
Preamble: The Dynamixel XL-320 servo is both light-weight and physically small. It has sufficient torque and a joint encoder to prototype manipulators. Moreover, it has mounting holes that can secure to Lego pieces with M2.5 fasteners

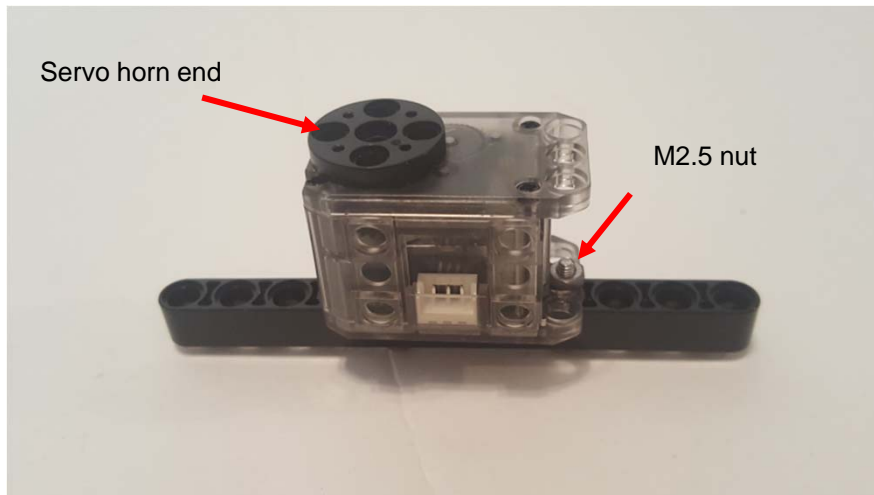**Objective:** Construct Lego-based servo mount for XL-320 as seen below
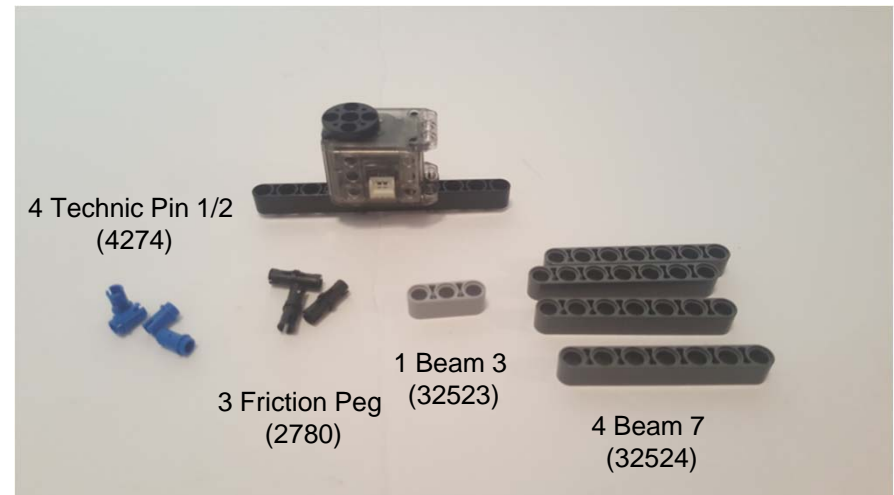

XL-320 Lego-based Motor Mount

Step 1: Servo Beam Sub-Assembly

1 XL-320 Servo

1 Beam 11 (64290)

1 M2.5 Screw

2 M2.5 Washer

1 M2.5 x 16 MM hex screw

1 M2.5 x 14 MM hex screw

Mounting hole

5th hole from left
(M2.5 x 16 MM screw)

4th hole from right
(M2.5 x 14 MM screw)

1B: Secure M2.5 screw thru washers as shown. See 1C for fastening nut

Servo horn end

M2.5 nut

1C: Secure M2.5 nut from "1B"

4 Technic Pin 1/2
(4274)

3 Friction Peg
(2780)

1 Beam 3
(32523)

4 Beam 7
(32524)

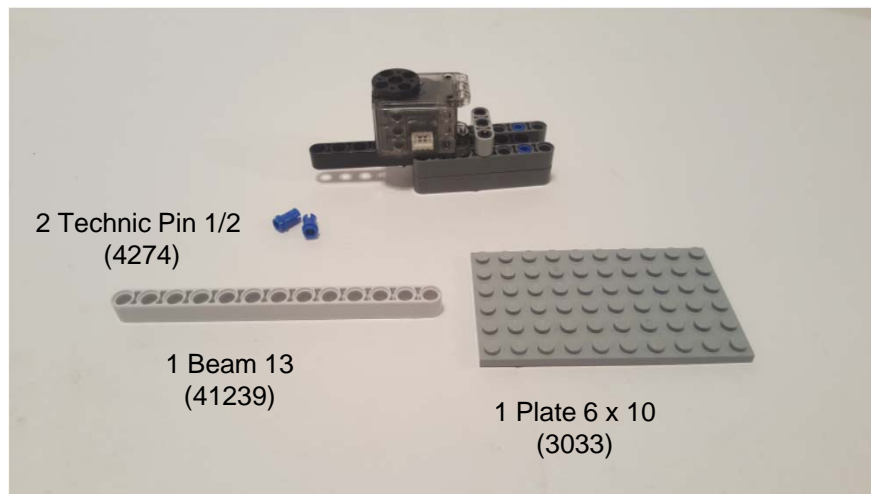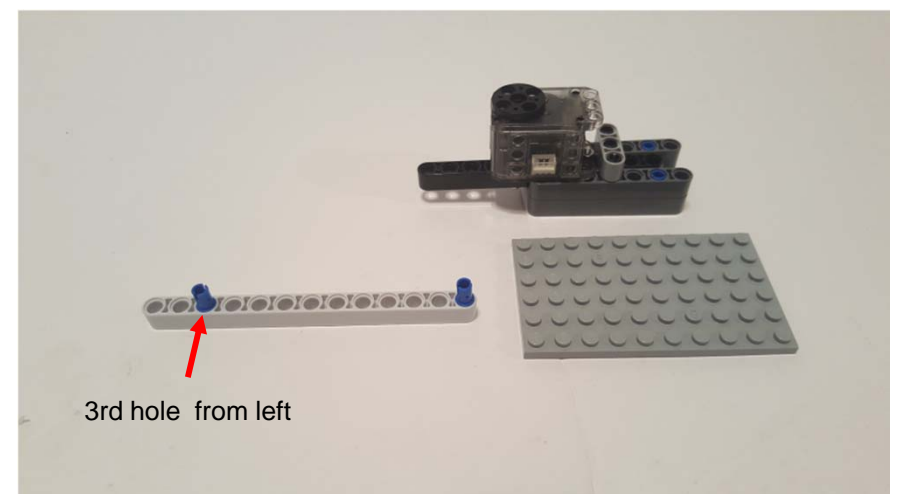**1D: Gather parts**

Step 2: Base Arms Sub-Assembly

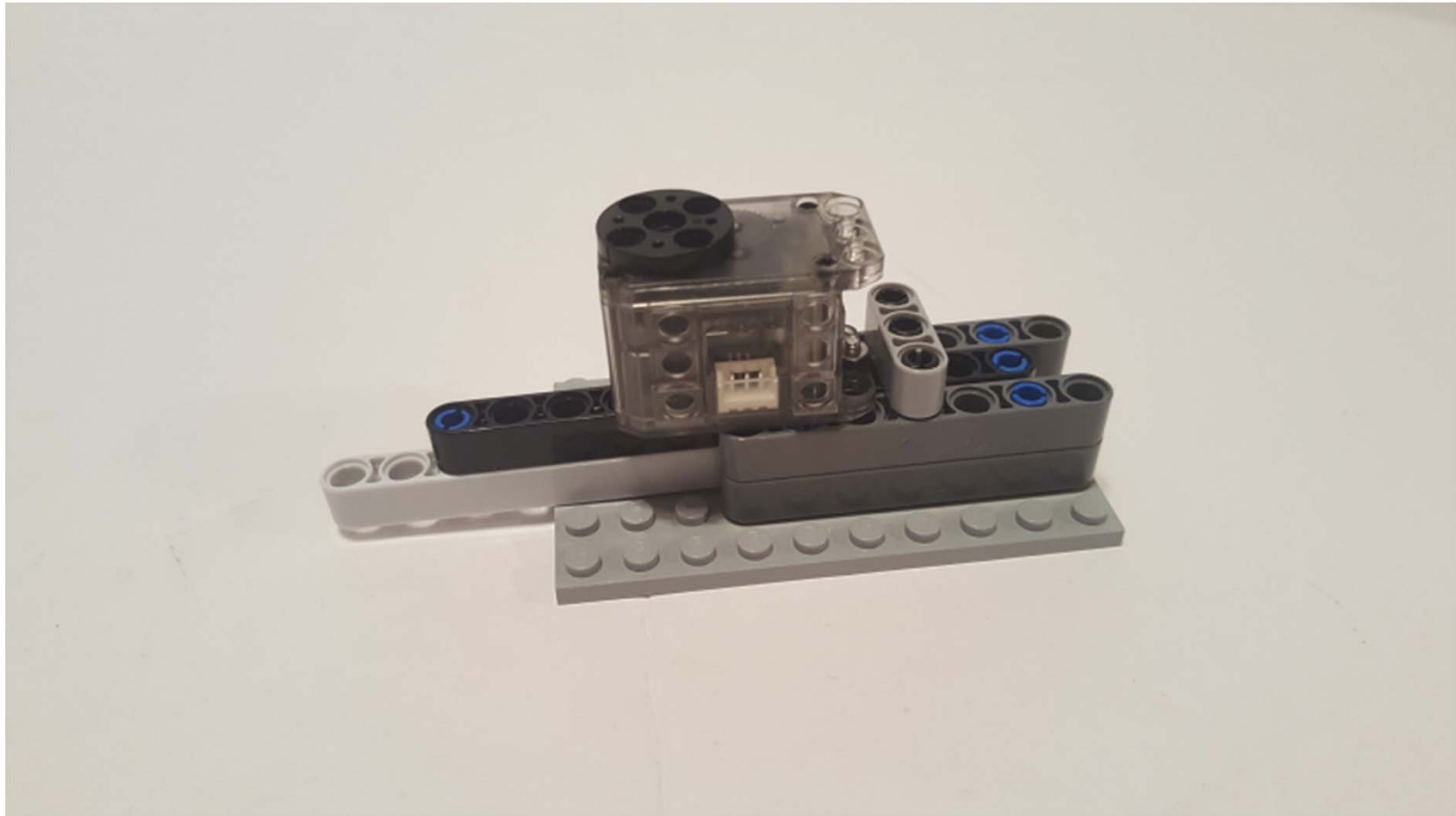2A: Insert friction pegs in Beam 3. Insert Pin 1/2 in both Beam 7s.

2B: Align two Beam 7s beneath motor and secure to Beam 3

2 Technic Pin 1/2
(4274)

1 Beam 13
(41239)

1 Plate 6 x 10
(3033)

2C: Gather parts

3rd hole from left

2D: Insert Pin 1/2 into Beam 13 as shown

Congratulations! Completed XL-320 Lego-based Motor Mount