

Patton Robotics ESRA[®] III Arm and Neck Kit

Expressive System for Robotic Animation

Assembly Instructions

Version 1.0

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ESRA III Kit Contents



Assembly Instructions

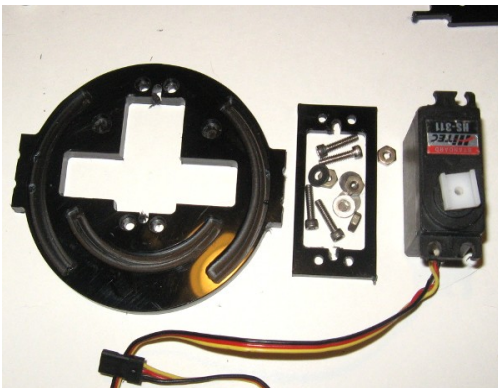


Figure 1

Locate the bottom turret plate, spacer, servo and needed $\frac{1}{2}$ inch screws, nuts and washers

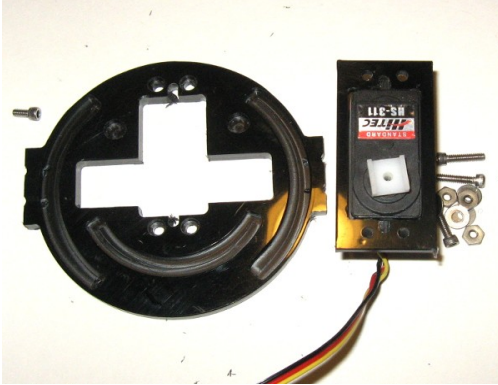


Figure 2

Place the spacer over the servo

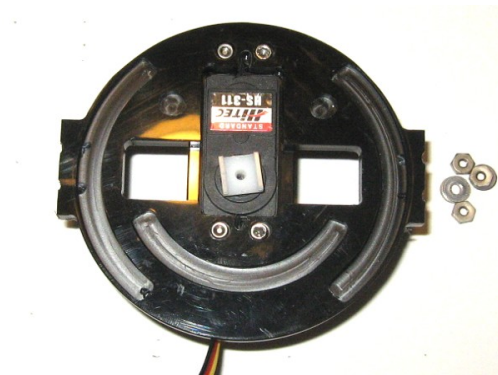


Figure 3

Place four ½ inch screws through the bottom turret in into the servo mounting holes.

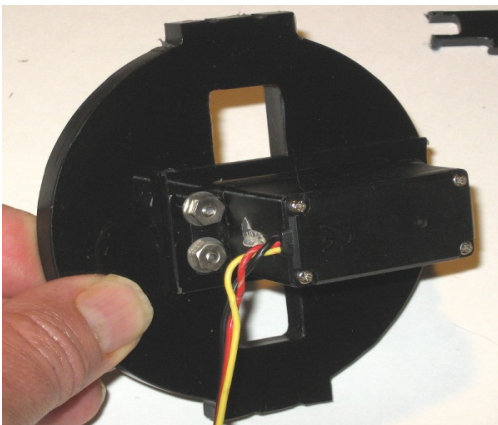


Figure 4

Use nuts and washers to secure in place



Figure 5

Locate two more servos , the foot plate, washers and self tapping 4-40 screws.

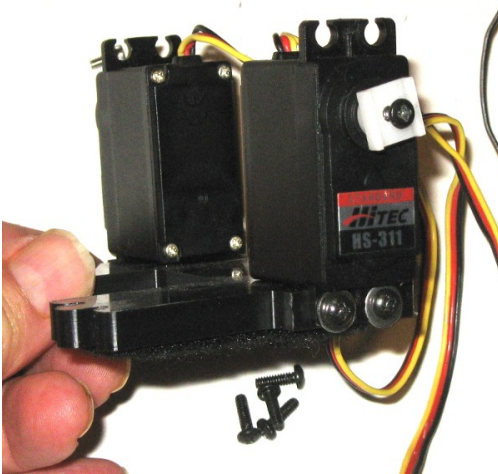


Figure 6

Secure the servos into the foot plate using screws and washers.

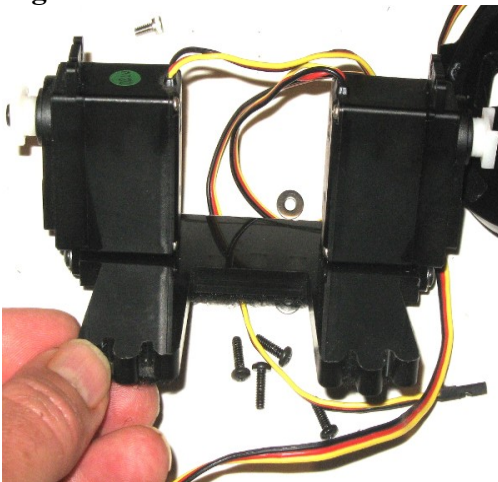


Figure 7

When complete is should resemble the picture on the left.



Figure 8

Place the bottom turret over the foot plate and secure with 4 more self tapping screws and washers. Notice the servo cut out in the bottom turret plate faces the rear.

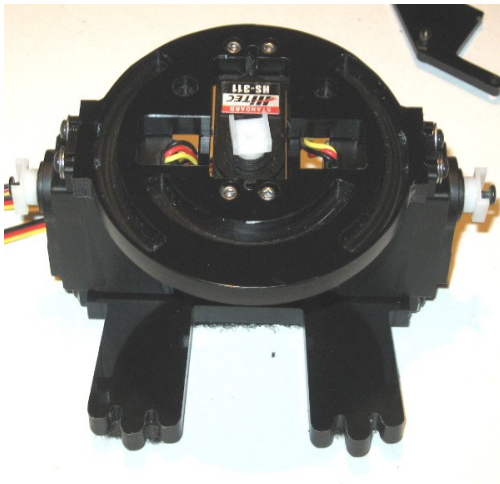


Figure 9

When complete is should look like the picture on the left.

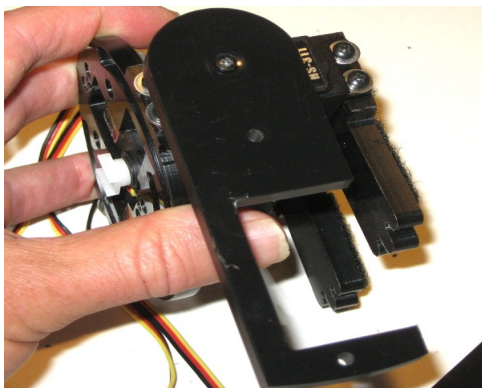


Figure 10

Secure the forearm onto the servo horn. It can be mounted with the cut out facing up or down. I prefer facing down.

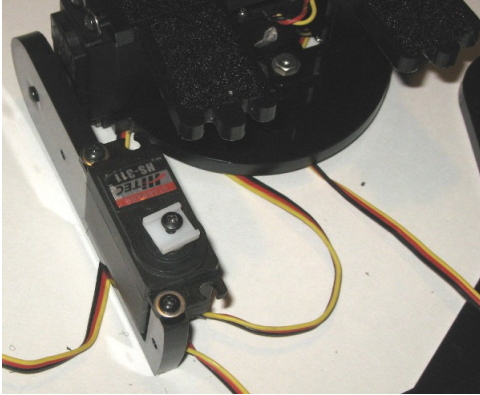


Figure 11

Secure a servo to the forearm with two self tapping screws and washers

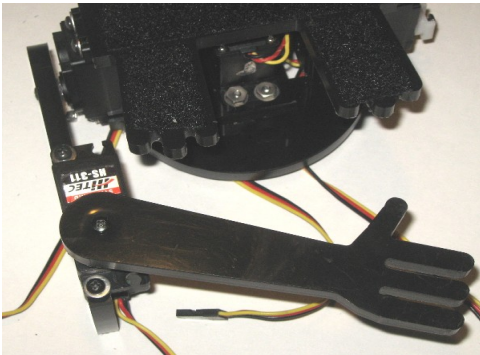


Figure 12

Finally attach the arm to the forearm.

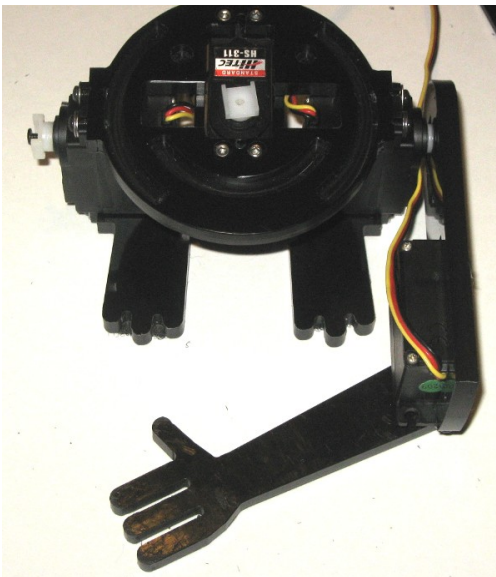


Figure 13

When complete is should look like the picture on the left.

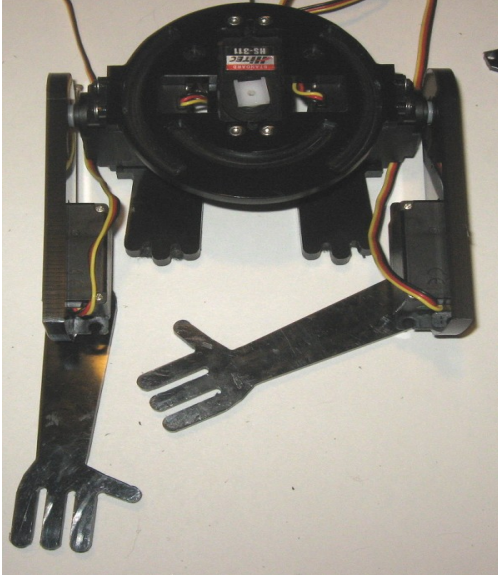


Figure 14

Repeat the processes above for the other arm.

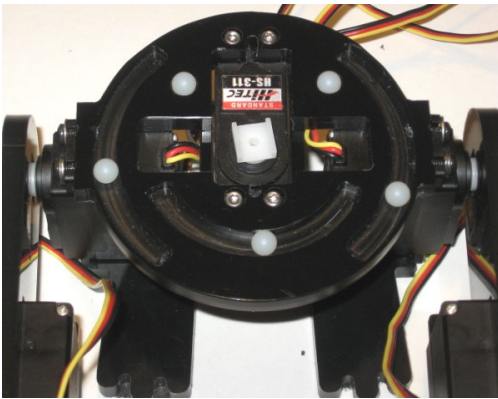


Figure 15

Place 5 bearing balls into the divots and grooves of the turret bottom.

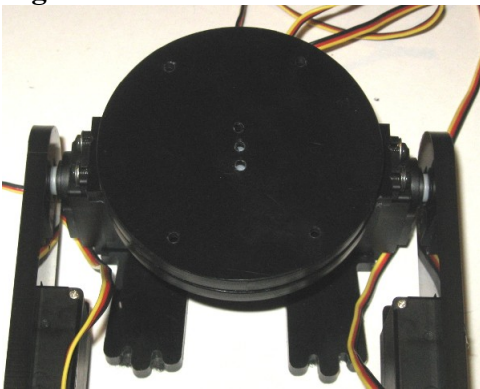


Figure 16

At this time the turret top can be attached to the neck servo.

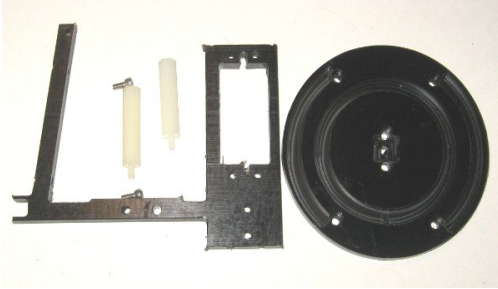


Figure 17

To proceed with the ESRA III kit, locate the Main servo frame, standoffs and screws. **BE SURE TO HAVE TAPPED THE HOLES IN THE SERVO FRAME AS DESCRIBED IN THE ESRA III ASSEMBLE MANUAL.**

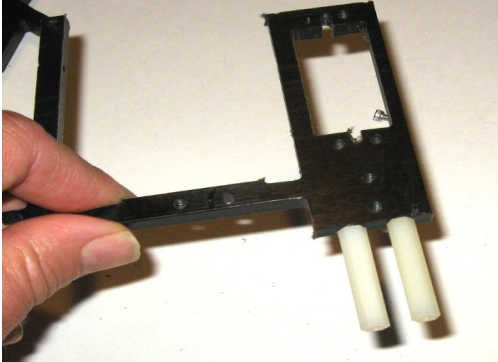


Figure 18

Screw the standoffs into the bottom of the main servo frame.



Figure 19

Attach the standoffs to the top turret using two screws.

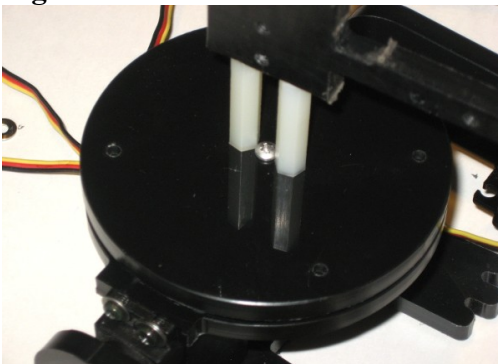


Figure 20

Using a long Philips screw driver, screw the servo screw into the neck servo

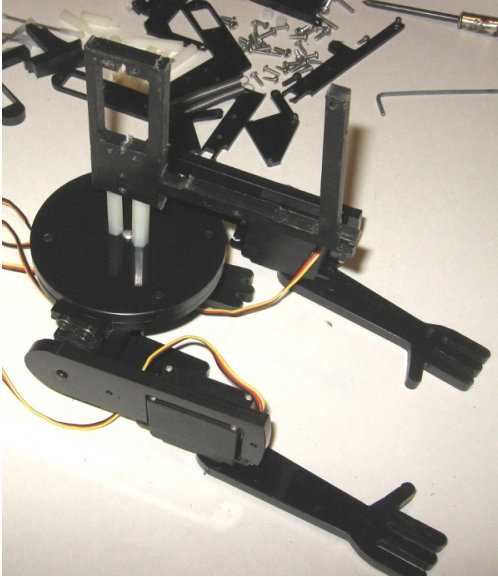


Figure 21

**You are now ready to complete your ESRA
III using it's assembly manual.**