

## Heavy Duty Metal Arm Base Assembly

**Safety first!** Wear eye protection and never touch a powered robot!



Image of completed base.

### Step 1.

Attach a ball bearing to the base plate as shown. The screw should be flush with the base plate.

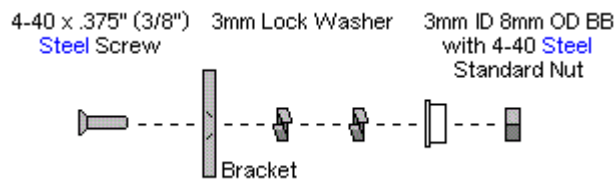


Figure 1-1.



Figure 1-2.

### Step 2.

Construct a heavy-duty "C" bracket using two aluminum standoffs and the two metal plates as shown. Use four 4-40 x .375" Machine Screws. The screws should be flush with the plates when you are done.

4 x

4-40 x .375" (3/8") Steel  
Phillips Head Machine Screw

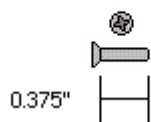


Figure 2.

### Step 3.

Stack the servo bracket on top of the base plate and attach them to a piece of wood using #4 tapping screws. Don't tighten these down all the way yet. Alternately, you can use four 4-40 x .375" screws and nuts if you are not attaching the base to a piece of wood.

**4 x**

#4 x .500" (1/2") Steel  
Phillips Head Tapping Screw

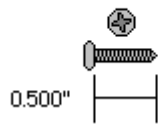


Figure 3.

### Step 4.

Remove the HS-645MG's servo horn and replace it with the metal one. Be sure to put the new horn in the same orientation as the old one!



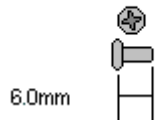
Figure 4.

### Step 5.

Slide the HS-645MG servo into the bracket and secure it with four 3mm x 6mm screws and washers. Note that the bracket is tapped, and you do not need to use nuts.

4 x

3mm x 6mm **Steel**  
Phillips Head Tapping Screw



4 x

4-40 / 5-40 **Steel**  
Washer



Figure 5.

### Step 6.

Slide the "C" assembly into position over the ball bearing and servo horn. If you are constructing an arm kit, attach your ASB-201 (for A and B arms) or ASB-204 (for D arms) to the "C" bracket using four 2-56 x .25" screws. Otherwise, just attach the "C" bracket to the servo horn. Note, the bracket is included in the **arm kit**, not the base kit.

4 x

2-56 x .25" (1/4") **Steel**  
Phillips Head Machine Screw

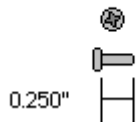


Figure 6.