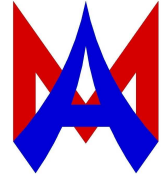


AndyMark Mecanum Wheel Assembly Instructions

December 10th, 2010

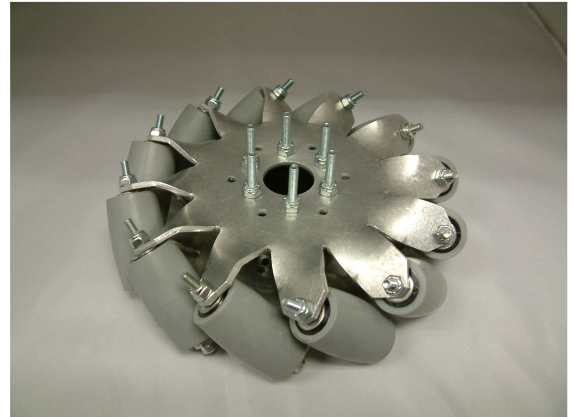


Parts to make one (1) Mecanum Wheel:

- A: side plate (2)
- B: molded roller (12) with black core and two inserted bushings
- C: brass tube (12)
- D: 1600 Spacer (1)
- E: #10-32 x 3.0 inch long screw (18)
- F: #10-32 Nylock nut (18)
- G: 1/4" stainless steel washer (24), 0.04" thick

Tools needed:

- 5/32" hex head driver (or allen wrench)
- 3/8" wrench (or socket)
- Cordless drill, set on low torque setting

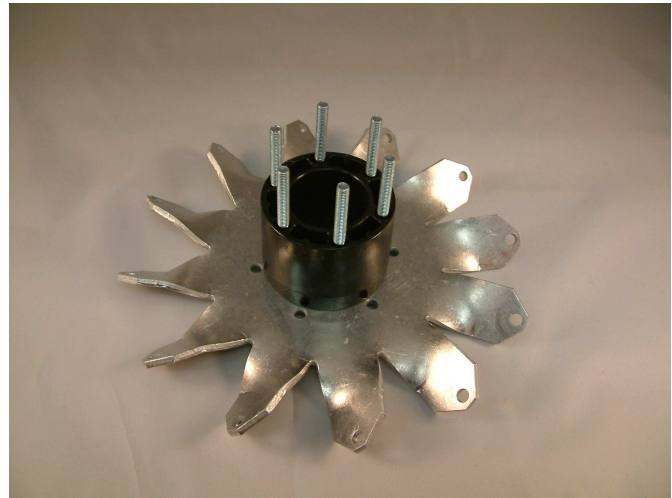


Wheel Assembly Instructions:

Step 1: Lay one side plate (A) down on the table; with inside face (inside sticker is on one side of plate). Feed screws (E) from bottom up through the 6 interior holes closest to the center bore.



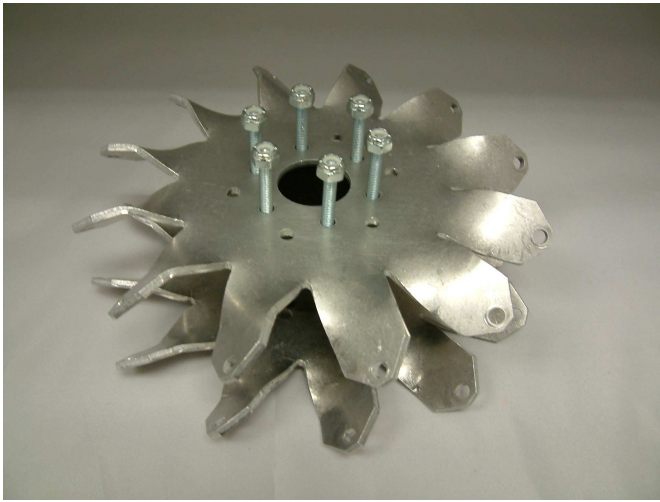
Step 1



Step 2

Step 2: Place the 1600 Spacer (D) on the plate by feeding the screws (E) through the 6 holes in the spacer.

Step 3: Place second side plate (A) inside down onto wheel assembly. The “inside” of the plates should face each other. Then install nuts (F) on each of the 6 interior screws, but leave them only finger-tight.

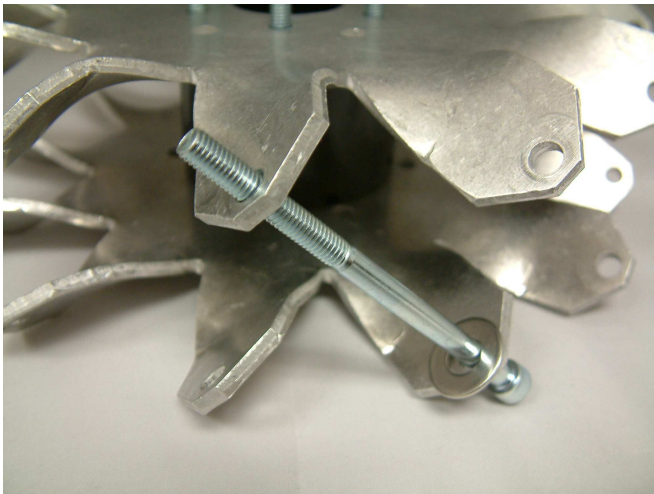


Step 3



Step 4

Step 4: Insert brass tube (C) into roller (B), repeat for all rollers.



Step 5

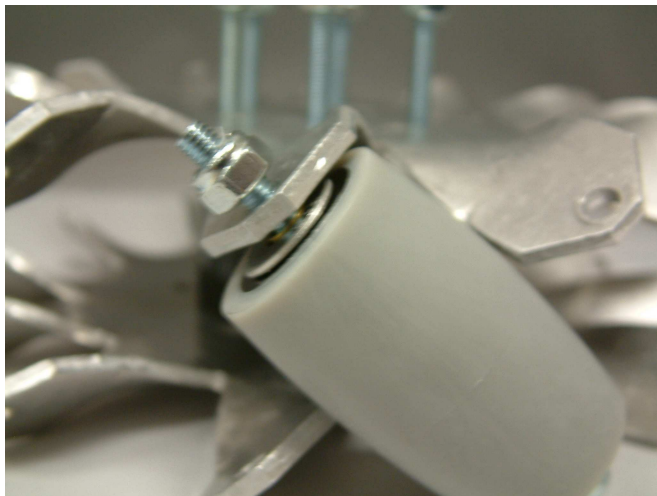


Step 6

Step 5: Feed screw (E) from bottom up through perimeter hole, keeping sure that the screw head is on the same side as the screw heads of the interior screws. Put washer (G) onto screw (E), over plate.

Step 6: Put roller (B) onto screw (E). Put washer (G) onto screw (E), on top of roller (B). Place the washer so that the brass tube is inside the inner hole of the washer.

Step 7: Install nut (F) on the axle screw, and tighten just enough to fully engage the nylock nut.



Step 7



Step 8

Step 8: Repeat steps 5 through 7 for the remaining 11 rollers (B).

Step 9: Use the 3/8 wrench and a 5/32 hex driver (or allen wrench), tighten the 12 perimeter screws first, keeping the washers fitted over the brass tubes and not sandwiched between the tube and the side plate. Tighten the 6 interior screws in a balanced way.



Step 9



Step 9



Here is how the plates and the ends of the rollers should look when finished and tight:

