

AndyMark Mecanum Wheel Assembly Instructions



Parts to make 1 Mecanum Wheel:

- A: side plate (2)
- B: roller (12), includes brass tube, two 1" diameter roller and one 1.25" diameter roller
- C: 1.60" long aluminum spacer (6)
- D: #10x3" long machine screw (12)
- E: #10x2.5" long machine screw (6)
- F: #10 Nylock nut (18)
- G: #10 steel washer (24)
- H: 1/4" steel washer (24)

Tools needed:

- 3/8" drive socket screwdriver
- Philips head bit for cordless drill
- Cordless drill, set on low torque setting
- Philips head screw driver



Wheel Assembly Instructions:

Step 1: Lay one side plate (A) down on the table; inside up ("I" or "inside" is labeled on one side of plate). Position plate so at least one of the perimeter holes is off edge of the table.

Step 2: Feed screw (D) from bottom up through perimeter hole.

Step 3: Put #10 washer (G) onto screw (D). Put 1/4" washer (H) onto screw (D).



Step 1



Step 2 & 3

Step 4: Put roller (B) onto screw (D). Put ¼" washer (H) onto screw (D). Put #10 washer (G) onto screw (D).

Step 5: Repeat 11 times at each perimeter hole. All 12 rollers should be in place.



Step 4



Step 5

Step 6: Place second side plate (A) inside down onto wheel assembly. Line-up interior holes on top side plate (A) with bottom side plate (A).

Step 7: Carefully feed positioned screws (D) through corresponding perimeter holes in top plate (A). Insert 3-4 screws (D), then screw on lock nut (F) until nylock engages thread (this will keep screw in the hole). Stop.

Do the next 3-4 screws the same way. All screws should be finger tight with nylock barely engaging the screws. Repeat until all 12 screws are inserted into their proper holes, with nylock nuts in place, finger tight.



Step 6



Step 7

Step 8: Pick up wheel and put it on its side. Through one of the 6 holes closest to the center bore on the side plate (A), insert a screw (E) barely through the hole. From the other side of the wheel, insert aluminum spacer (C) into center bore. Angle spacer up sliding it over partially inserted screw (E).



Step 8a



Step 8b

Step 9: Push screw (E) into spacer (C) and through corresponding hole in opposite side plate (A). Place nut (F) over screw (D) until finger- tight.

Step 10: Using the 3/8" socket driver, tighten six interior screws first, in a balanced manner.



Step 9



Step 10

Step 11: Tighten perimeter screws. Adjust final tightness for desired roller spinning resistance. Check each roller for desired tightness. (The perimeter nylock nuts will stay in their position during operation.)



Step 11

Finished!

