#### Assembly guide

This kit requires some materials that are not included in the kit. Hey we've done all the heavy lifting here. Most robot builders have these sort of things on their work bench.

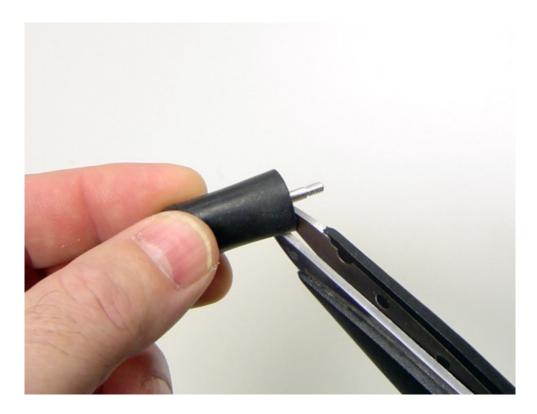
- 28 gage hook up wire. Two colors aprox. 26" long per leg. Wire, connectors, and Crimper Extra wire and connectors
- Short (5/8") pieces of 3/8" heat shrink. Local hardware store.
- Super Glue or Lock Tite. Local hardware store.
- Some method of adding connectors to the wires. With the wire and crimper above.

Step 1



First we need to install the rubber end cap onto the aluminum hub part. I haven't glued them in place. Not sure if it's necessary yet.

#### Step 2



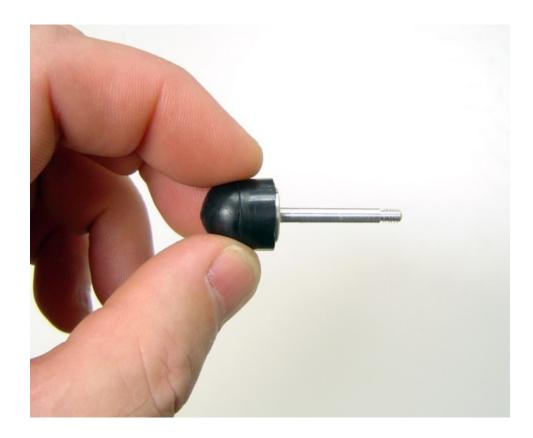
Find a good quality scissors for this step. Begin by cutting down the extra from the end cap.

Step 3



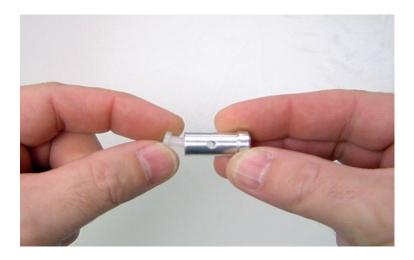
Continue in a spiral till you get to the hub. Push the end cap on again to make sure it's still tight and cut as closely as you can.

# Step 4



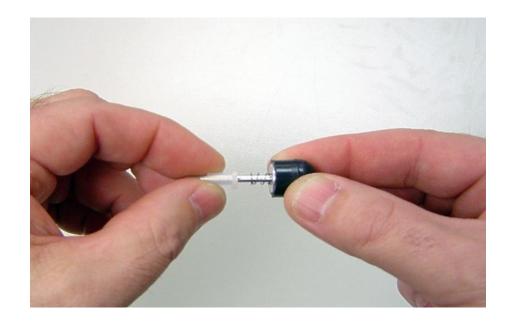
It should look something like this. If it extends beyond the edge it might take too much pressure to make the switch close.

Step 5



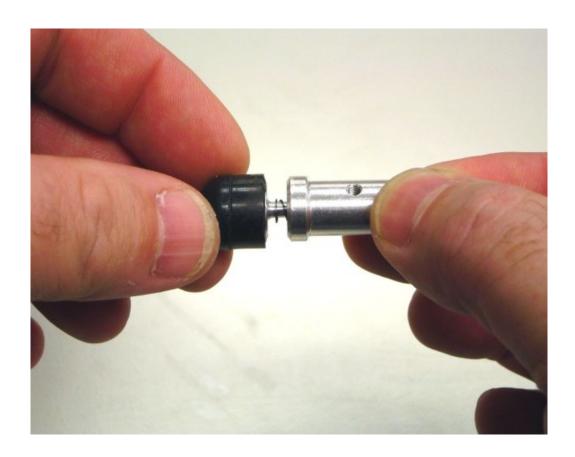
Insert one of the nylon shoulder washers into the hub.

### Step 6



Install the spring and the other nylon shoulder washer into the hub.

Step 7

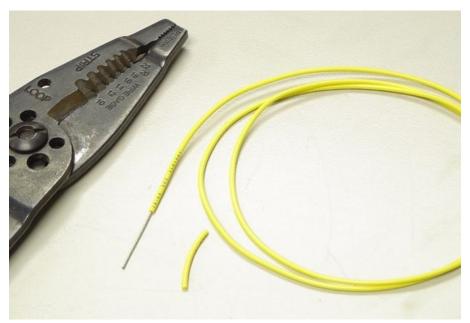


Bring it all together.



Add one nut. Tighten it down all the way. Then back it off one half revolution. There are 40 threads per inch. By backing it off one half turn the throw of the switch assembly is about 12 thousandths of an inch.

Step 9



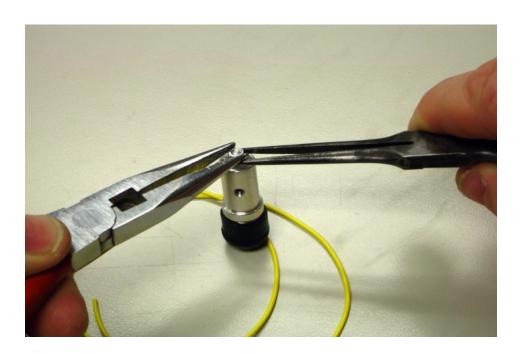
Cut a section of 28 gage wire to about 26" long. Strip off about 7/8" of insulation from one of the ends.

### Step 10



Wrap it around the end of the stud and twist it tight. This is tight, but it has to be in order to fit inside the short 1.5" tube.

Step 11



Add another nut, and tighten it down. Again I know it's tight. But can be done with some care. It would be a good idea to add a little super glue to the nuts to keep them in place.



Step 12



Add some heat shrink to keep the wire from twisting.

### Step 13



Cut a section of 28 gage wire to about 26" long. Strip off about 1/2" of insulation from one of the ends. Use a different color for this one.

Step 14



Feed the bare end of the wire into an unused mounting hole for the ASB-06 or whatever you are attaching the HUB-08 to. Make sure the insulation doesn't go in too far.

# Step 15



Attach the HUB-08 to the ASB-06.

Step 16



Attach the tube and the switch assembly a shown. That completes the assembly guide.

Note: need wiring example for pull up resistor to an I/O pin.