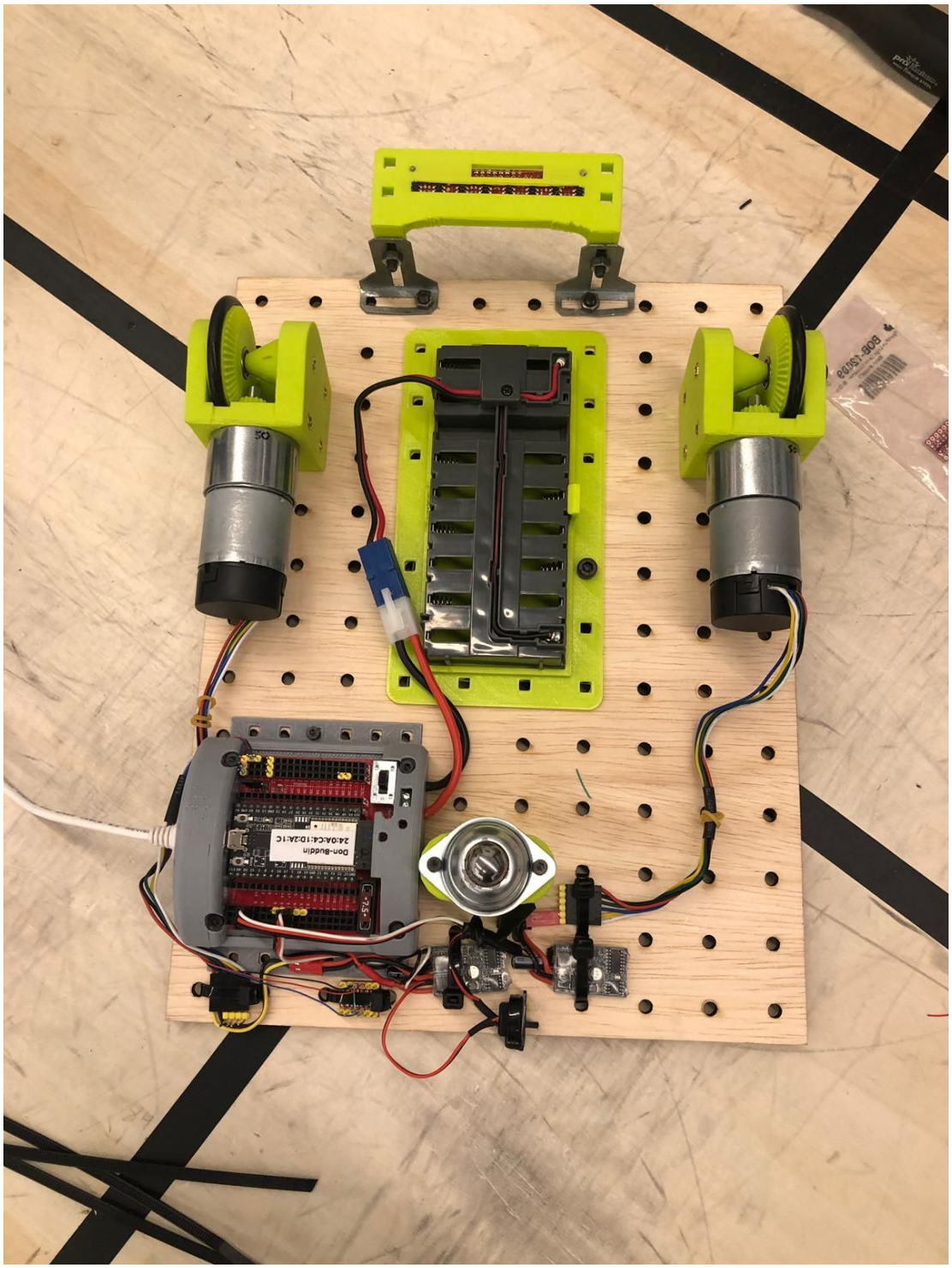
HOW TO BUILD THE BASEBOT

RBE 2001

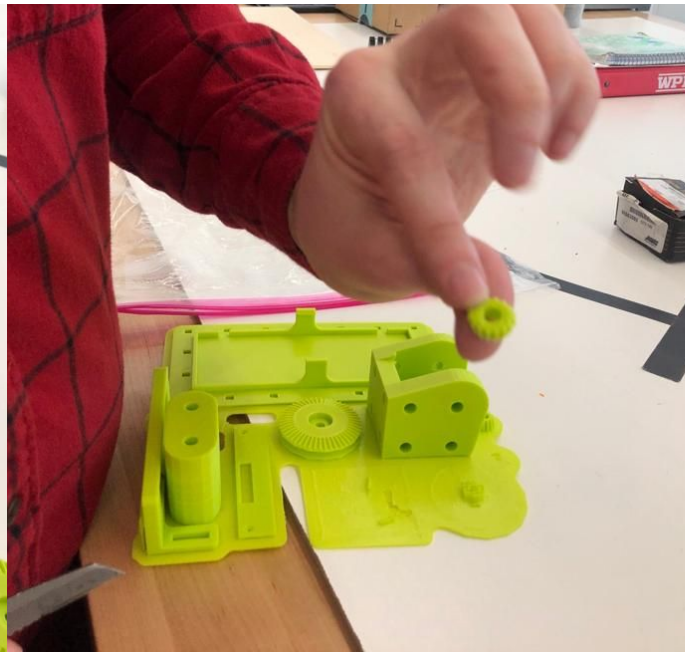
C’19



Start out by removing the 3D printed pieces from their support using a knife and pliers.

Be sure to remove the support **inside** the part as well

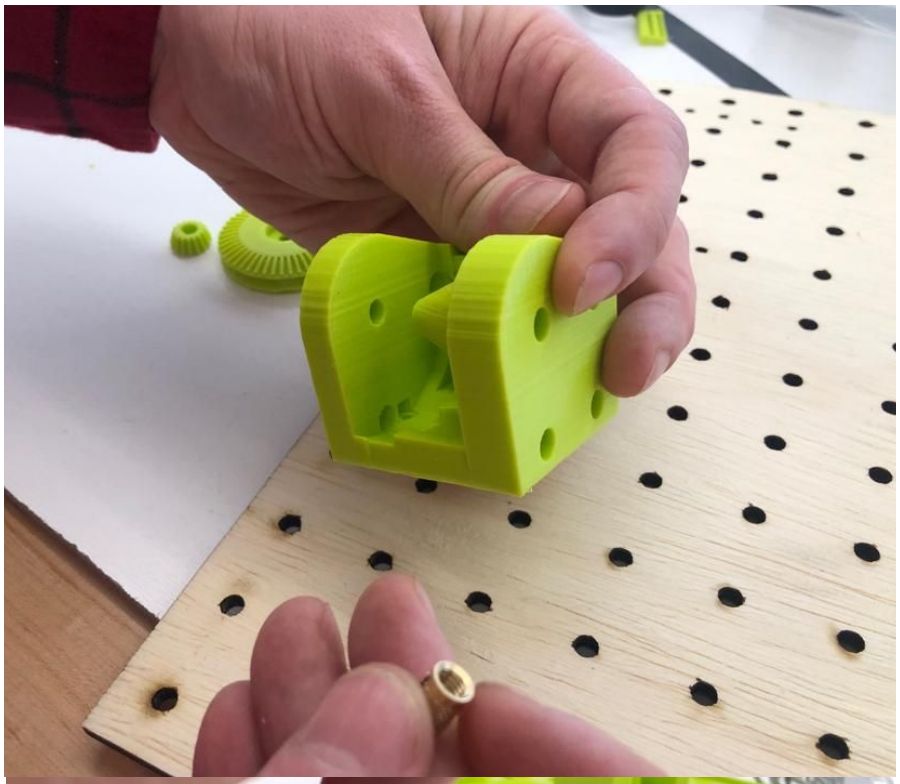
Scrape off any left over supports that may cause friction between parts.

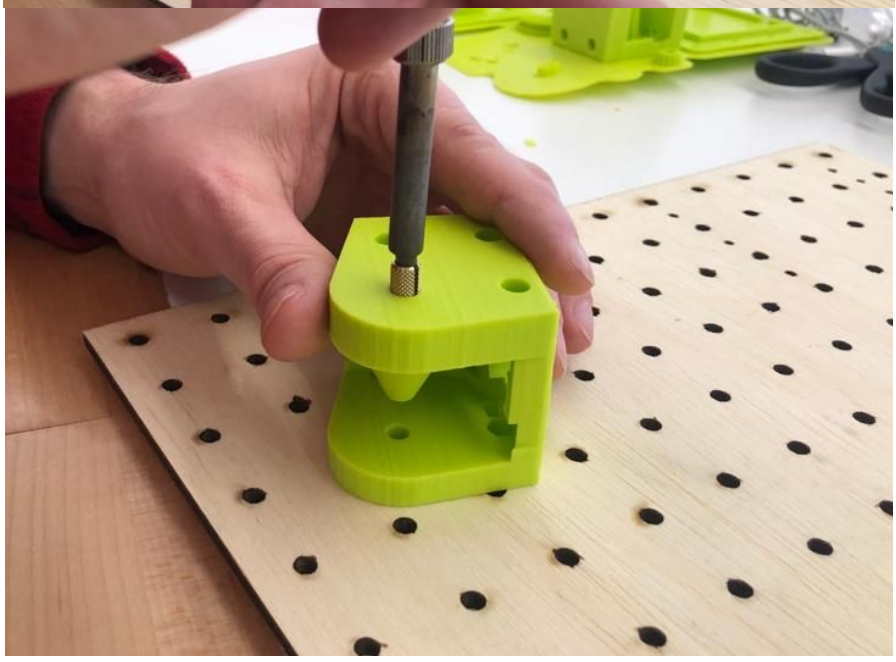


At this point, you should have the following three parts:

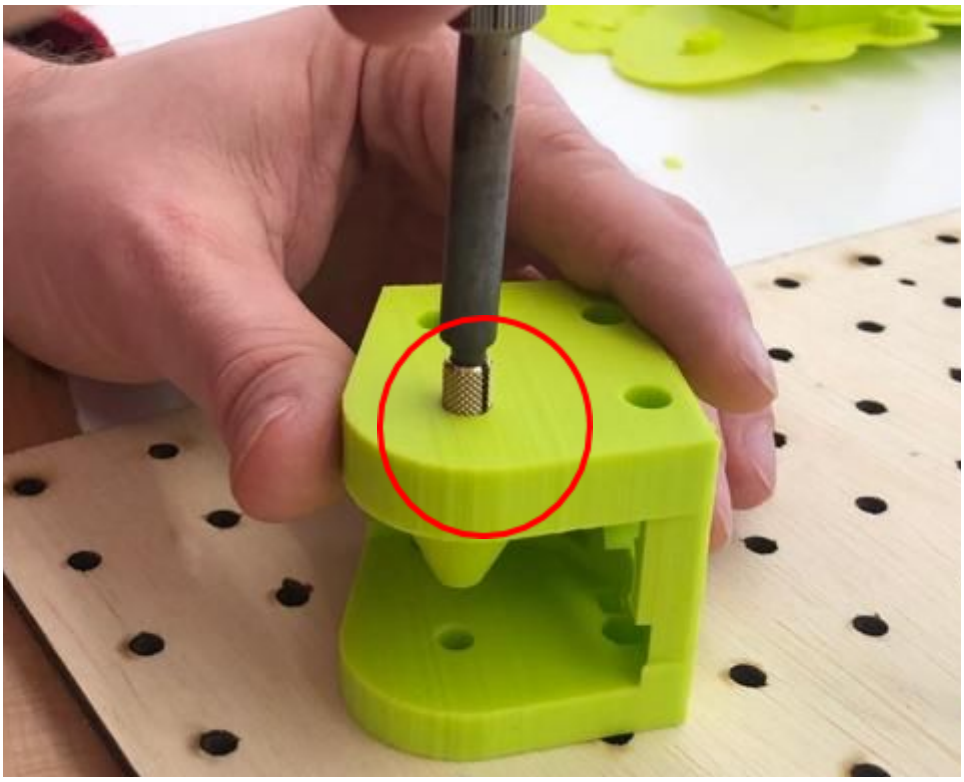
Now insert the M5 nutserts using a soldering iron into the holes.Soldering irons will be used to apply heat to the nutsert and glide in to the 3D part easier.
Soldering irons will not be provided by the RBE lab, but it can be obtained from the makerspace in Foisie if you completed your Basic User Training online.

The first M5 nutsert you will be inserting is the one behind the cone shape (shown below). This nutsert will be inserted upside down : the notches should be near the surface.

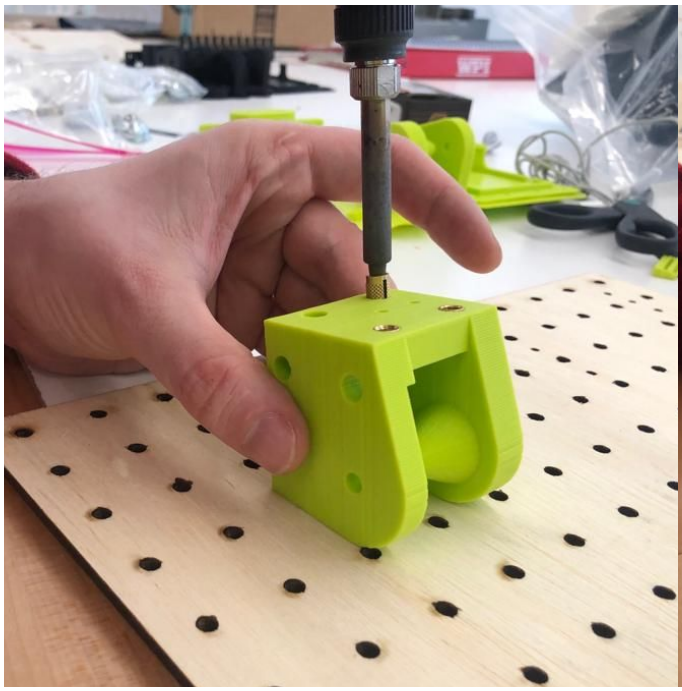


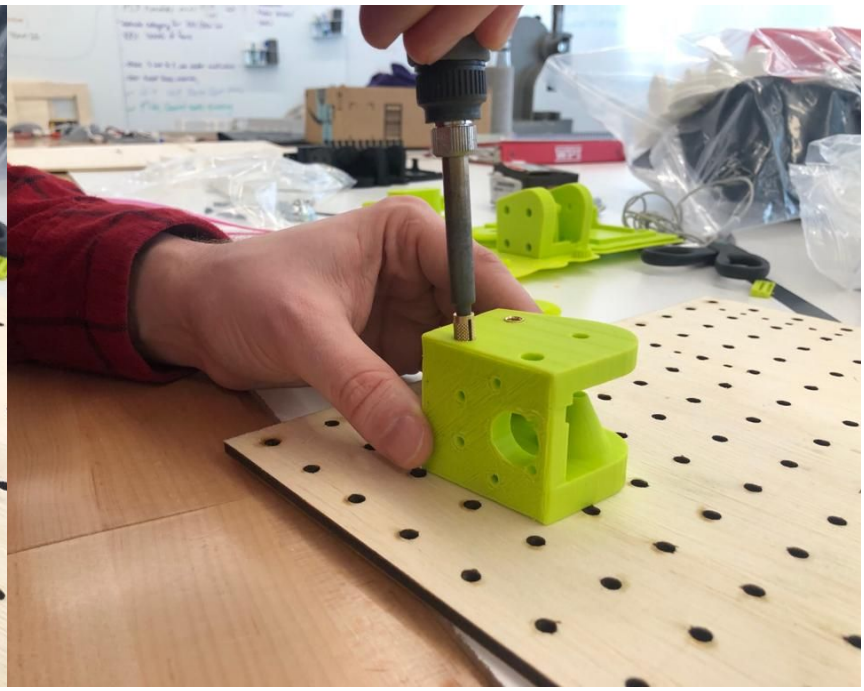


Be careful with the side you insert into the part!

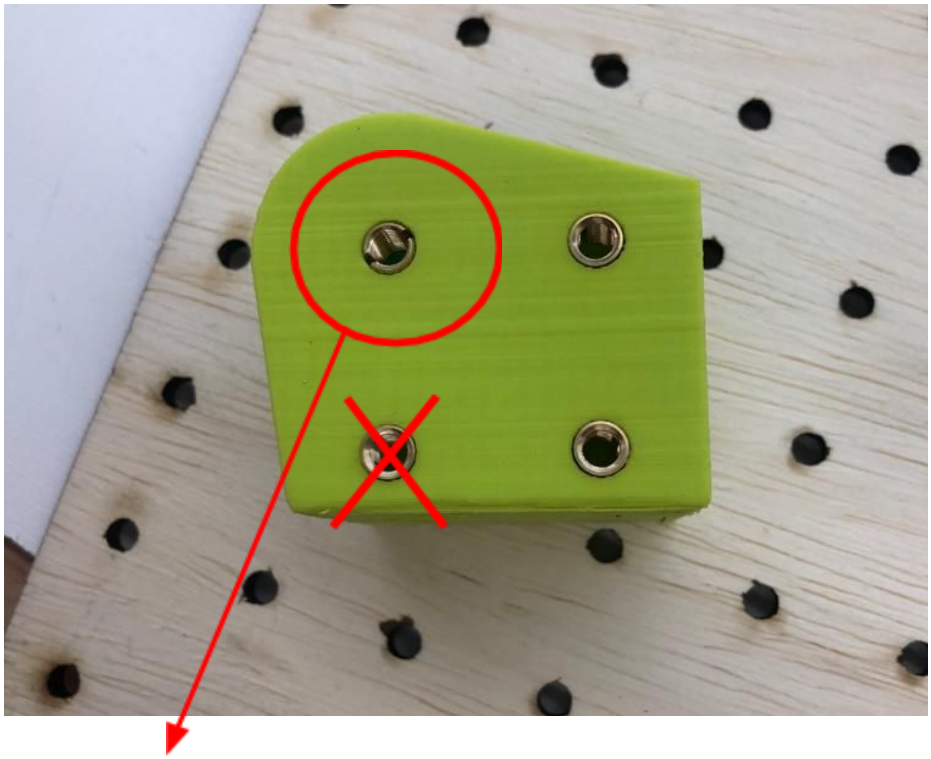


Rest of the nutserts can be inserted normally.



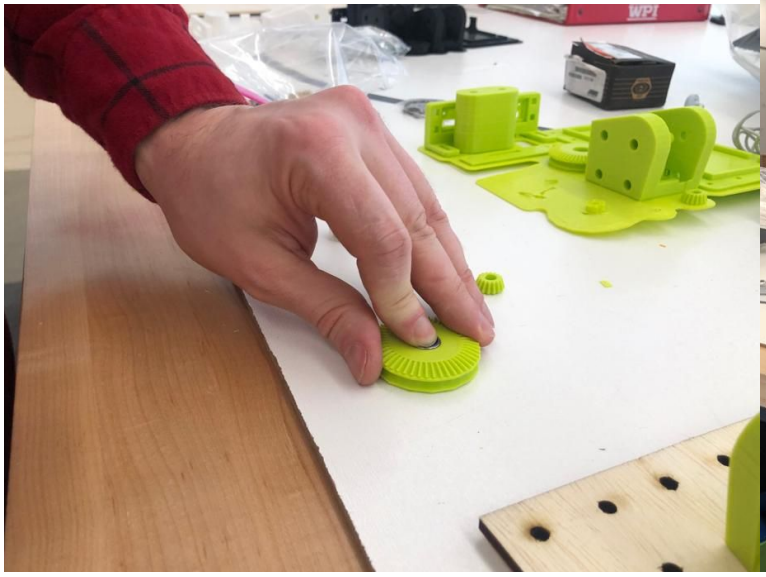


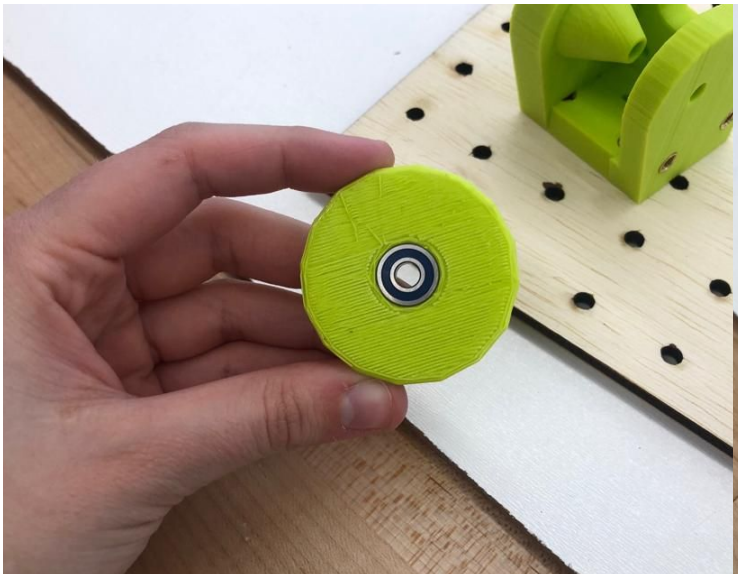
The final look of the nutserts should look like this.



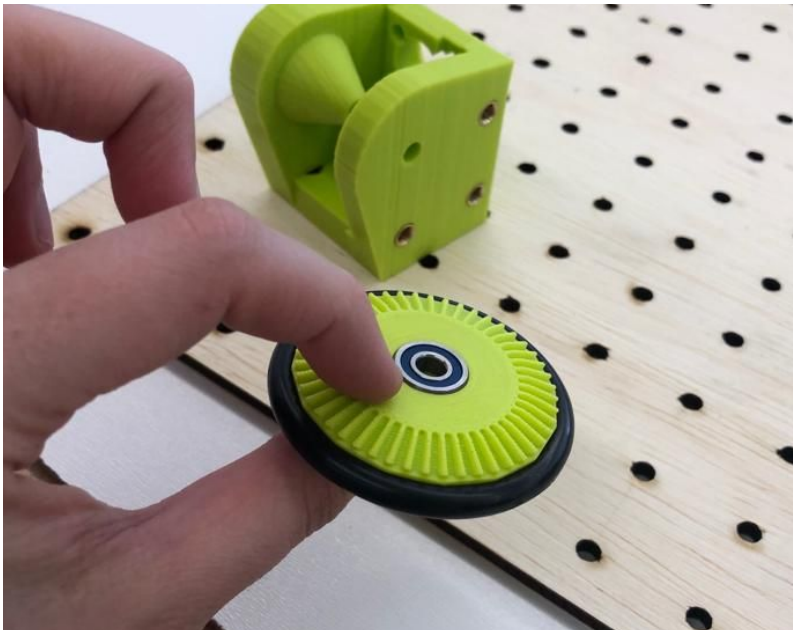
Notice how this nutsert is different than the rest.

Next grab 2 bearings and insert them in the wheel’s holes.If you have trouble inserting them by hand use the lab’s benchtop press.



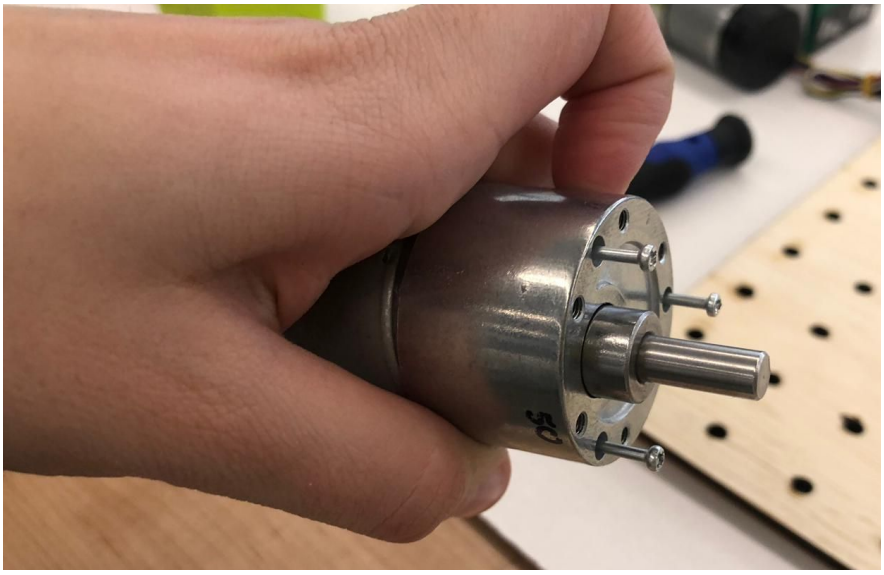


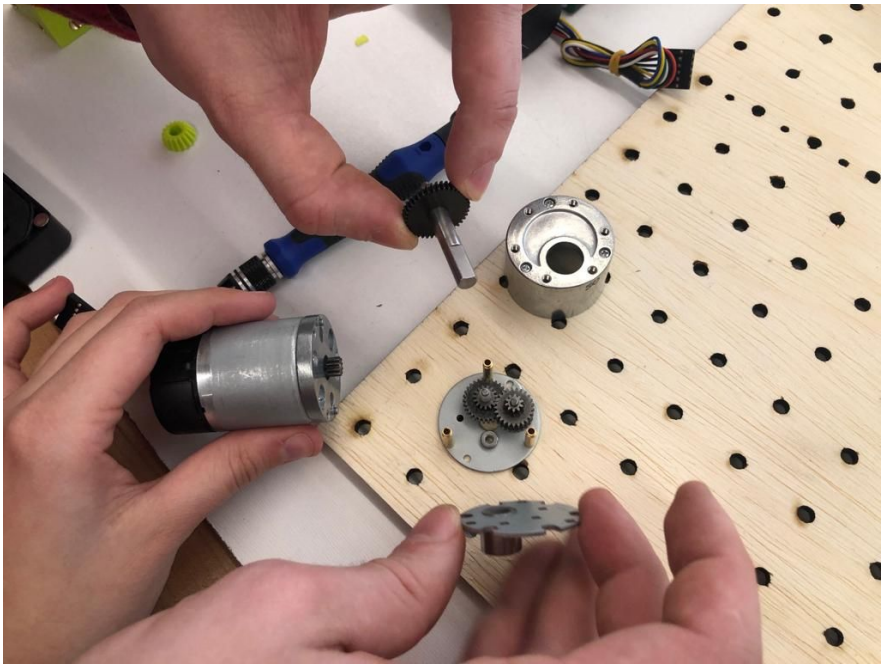
Next, put on an O-Ring on the wheel.



Grab a M5x45mm screw and insert it in the hole opposite to the cone and add a flat wash to it on the other side. Afterwards insert the wheel into the gap and slide the screw all the way through.

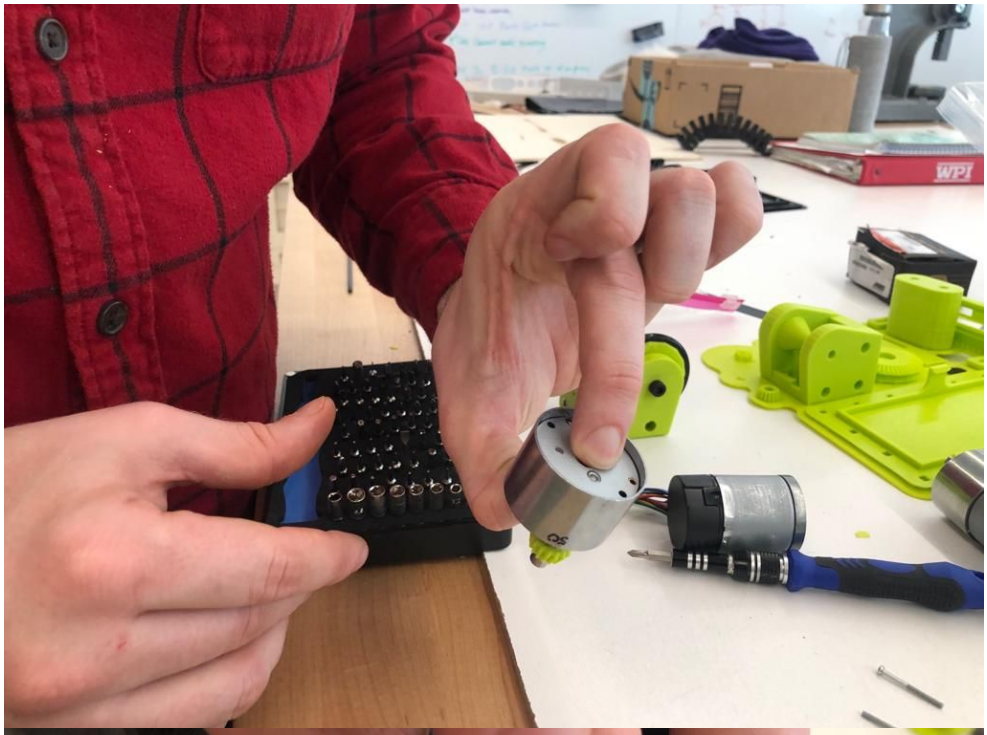
Now, grab your Pololu Motor and unscrew its screws to remove its top layer. This is so that you can insert the sprocket easier.

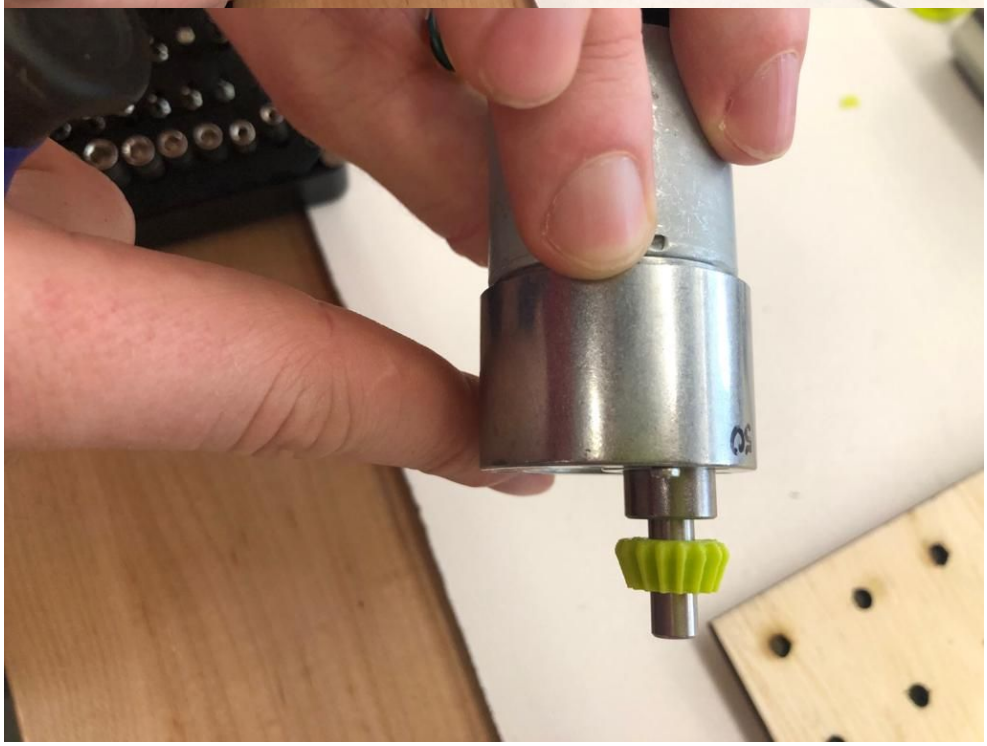




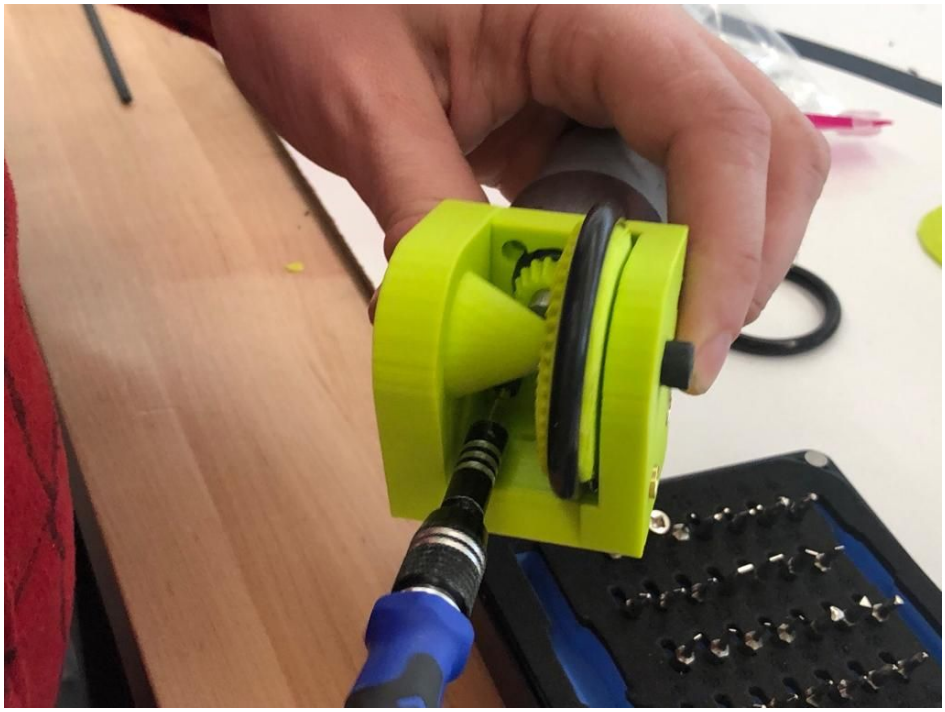
You will now insert the 3D printed sprocket onto the motor shaft. If you can’t insert it all the way through by hand, use the lab’s benchtop press.

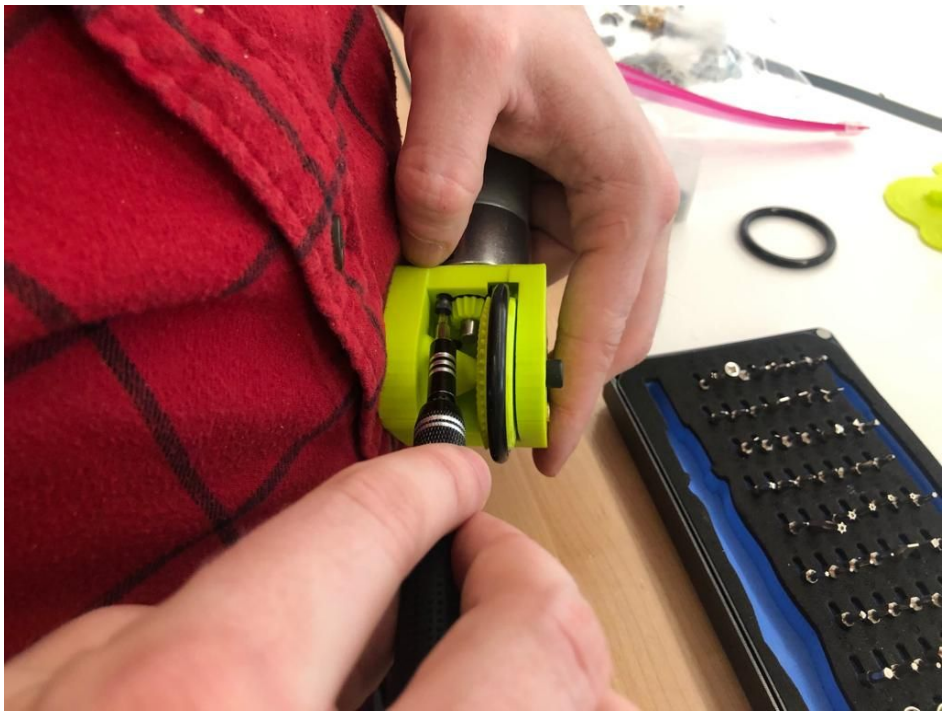
Now put the motor back together and screw it top back on.





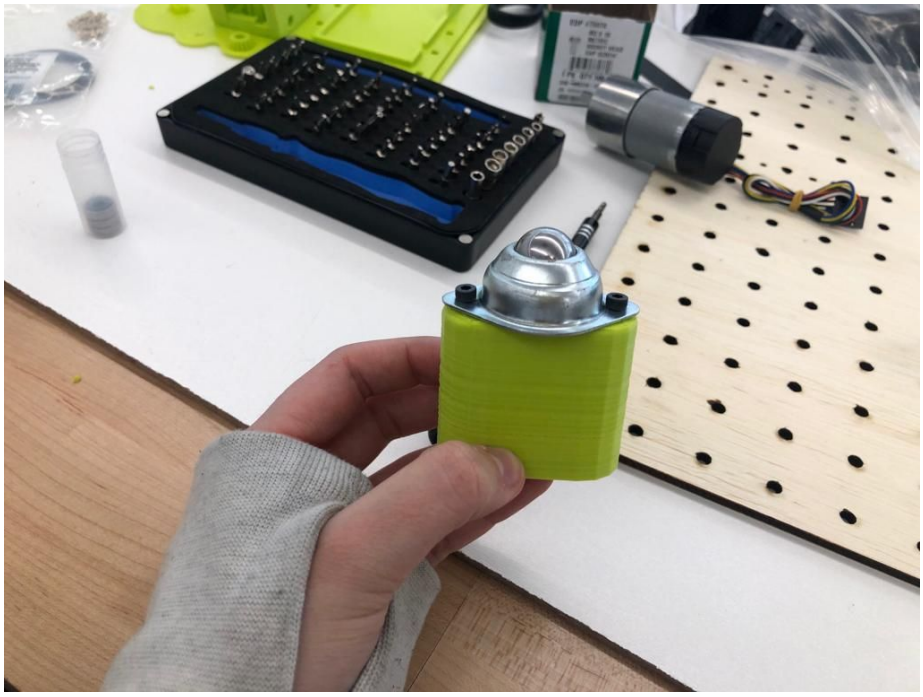
You will now insert the motor to your previously assembled part, and screw everything together. You might need to use a ball point allen key to screw the screw near the motor.





Grab your 3D printed piece that will hold the ball caster and insert M3 nutserts using a soldering iron.

Afterwards, attach the ball caster using M3x6 screws.



Now that you have the components, you can assemble the pieces on the wooden board as shown.

Wiring Diagram