

# Brains: PCB Soldering

## Intro:

The purpose of this section is to completely prepare the PCB.

If you don't know how to solder, you can read about it here:

<https://www.instructables.com/id/How-to-solder/>

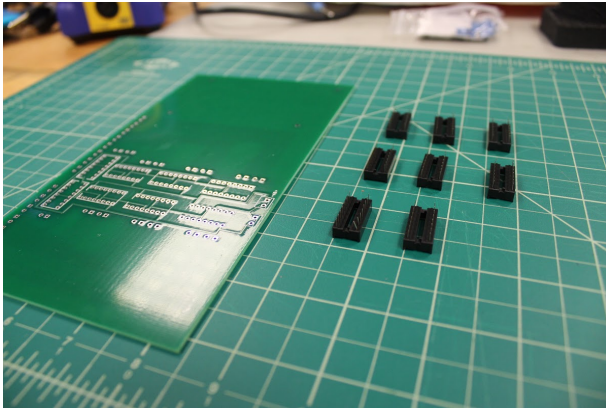
If you need to desolder, I found that using a desolder pump was my favorite method.

You can read about it here: <https://www.instructables.com/id/The-Ultimate-Guide-to-Desoldering/#step3>

## Bill of Materials:

Name	Number
Terminal Block – 2-pin 3.5mm	32
IC Socket – for 16-pin 0.3” Chips	8
Custom-ordered PCB	1
Dual H-Bridge Motor Driver for DC or Steppers - 600mA - L293D	8

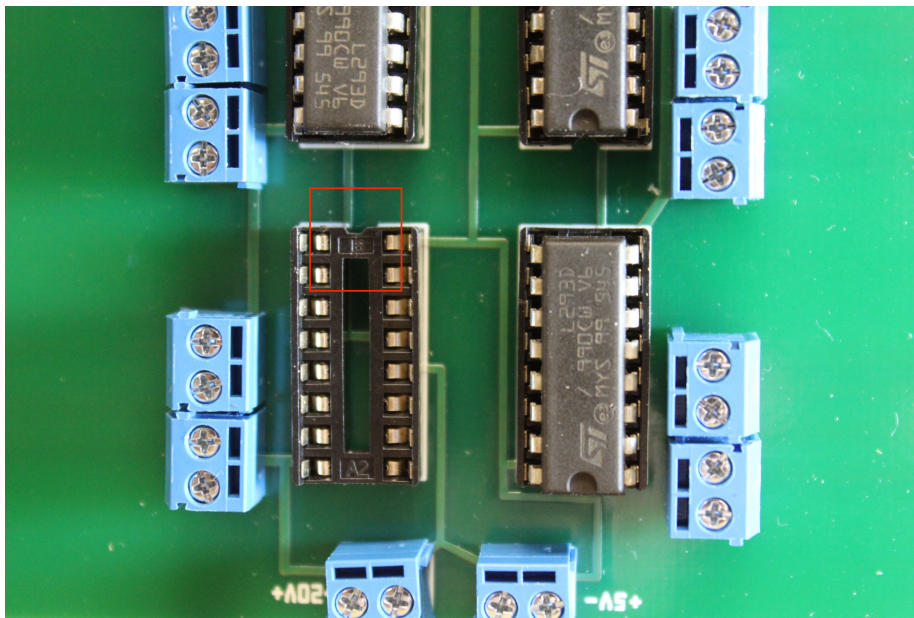
## Step 1:



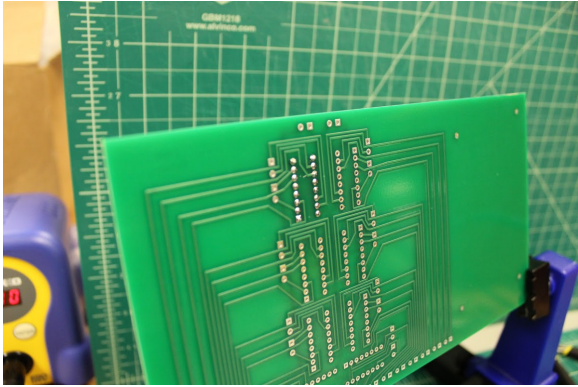
Need:

- 8x IC Socket – for 16-pin 0.3” Chips
- 1x PCB

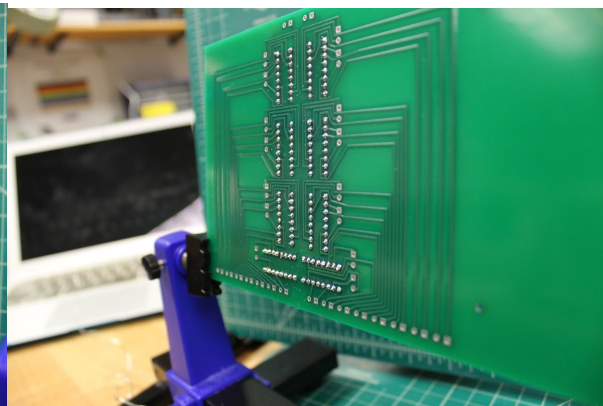
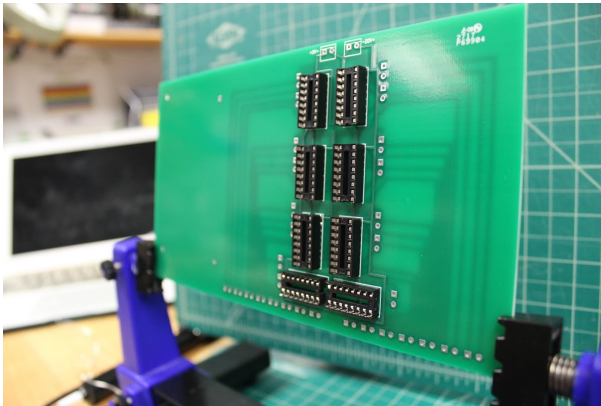
Set your sockets into the holes, ensuring that the “16” on the socket is facing the gap in the white surrounding the holes. The leads should be sticking out the back, on the side with the traces. Solder them one at a time.



The red box shows the “16” on the socket facing the gap in the white.

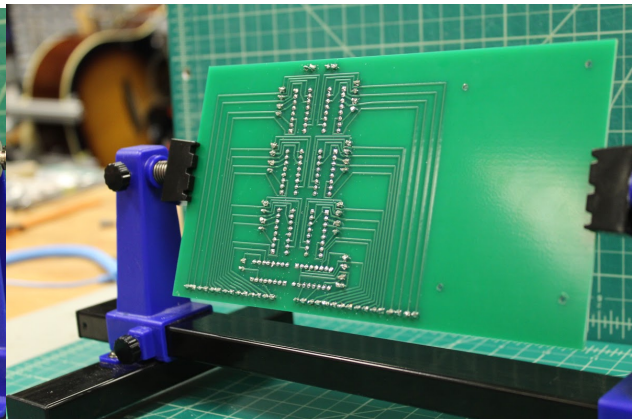
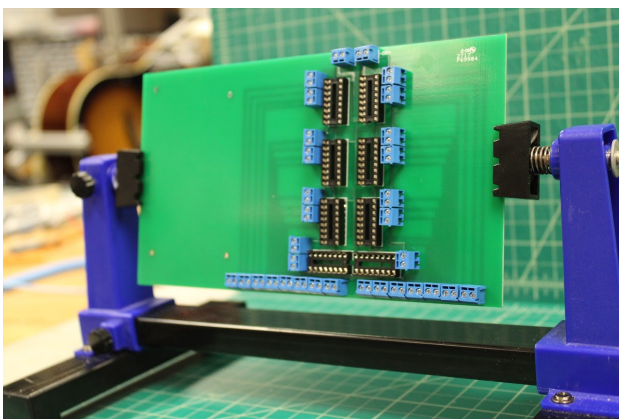


Here is the first socket soldered in.



Here are all eight sockets soldered in.

## Step 2:

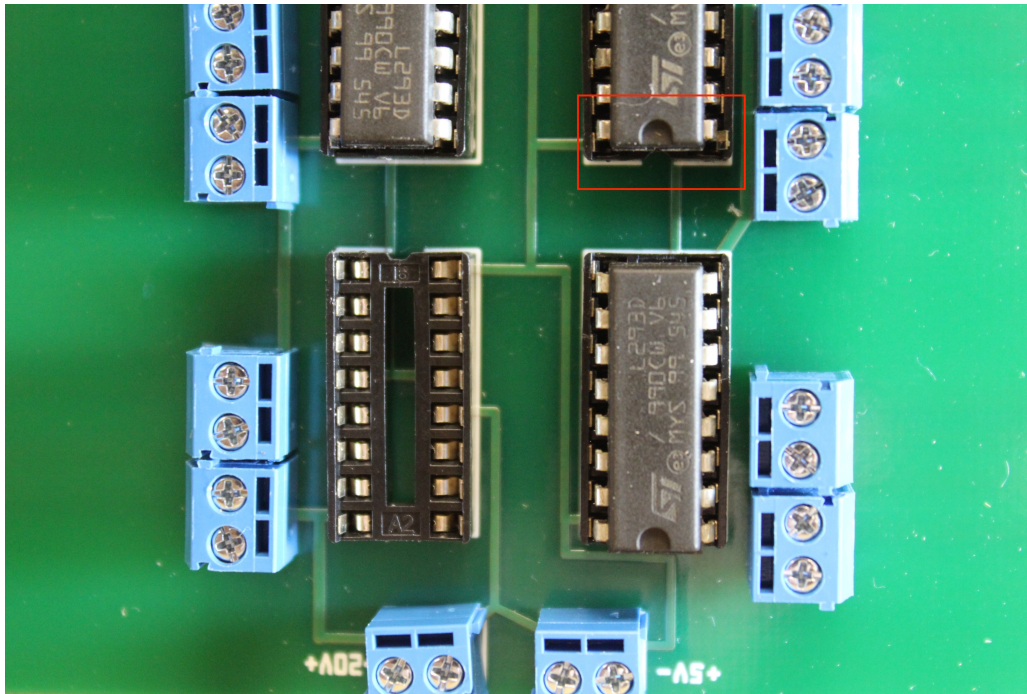


Need:

- 32x Terminal Block – 2-pin 3.5mm

Solder in the screw terminals, with the side entries all facing outwards.

### Step 3:



Need:

- 8x Dual H-Bridge Motor Driver for DC or Steppers - 600mA - L293D

Ensuring that the half-circle cutout on the H-Bridge is lined up with the gap in the white (as in the photo, marked by the red box), insert all the H-Bridges into the sockets. The H-Bridges' leads will likely need to be bent inwards slightly. Pliers worked well for this.