

## Structure: Legs

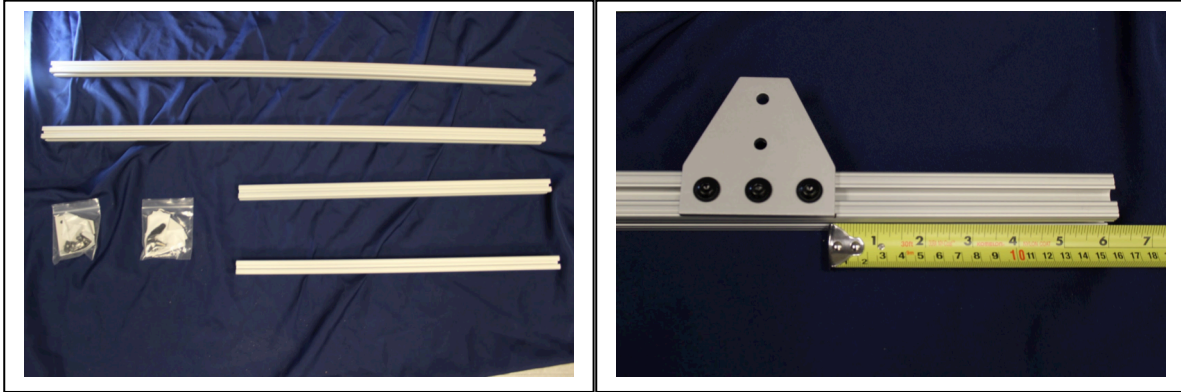
Now that you have cut up all the t-slotted aluminum bars for the GuitarBot, it is time to assemble some of it. Just like any live guitar player the GuitarBot stands while playing. However, it cannot do that without legs. In this section, you will build the legs that the GuitarBot will stand upon.

### Bill of Materials:

Name	Number
Tee Surface Bracket	2
40" 80/20® Bars	2
24" 80/20® Bars	2
24V150W Waterproof LED Driver IP67	1
12V100W Waterproof LED Driver IP68	1
6-32 Socket Head Screws 1/2"	4
6-32 Nylon Nuts	4
Single 80/20® Mounts	4
6-32 Flat Washers	4
Grounding Plug	2
Electrical Tape	1

Tools
Hex Keys
Tape Measure
Marker
Scissors
Wire Strippers
Screwdriver

## Step 1:

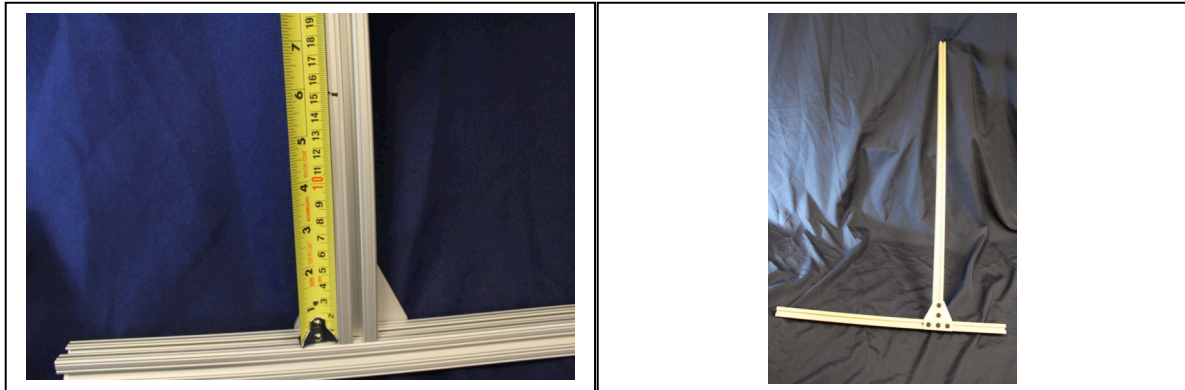


Need:

- 1x 24" 80/20® Bars
- 1x Tee Surface Brackets
- 1x Tee Surface Bracket Fasteners (set)

With the fasteners provided with the Tee Brackets, fasten the Tee brackets to each of the 24" bars as shown above. Note, the edge of the brackets should be roughly 6 and a half inches from the end of the 24" bars.

## Step 2:

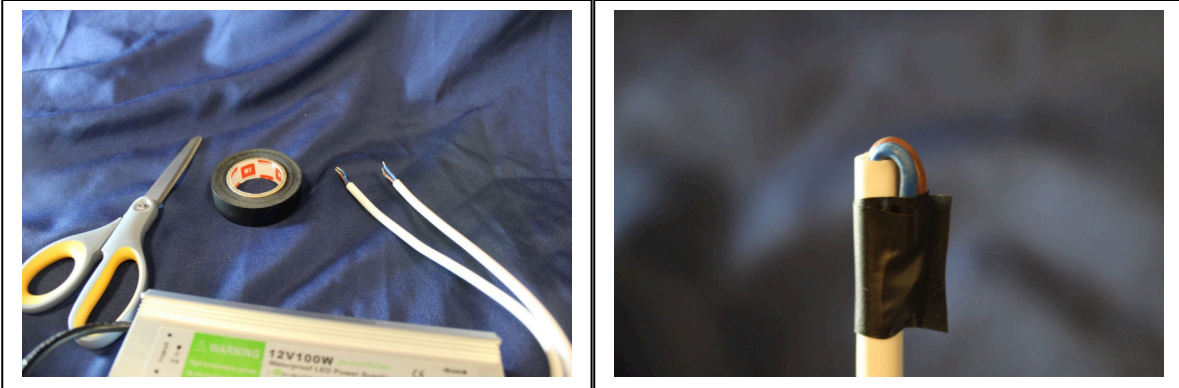


Need:

- 1x 40" 80/20® Bars
- 1x Tee Bracket/Bar Assembly

Attach one 40" bar to each bracket/bar assembly from the previous step. The 40" and 24" bars should be perpendicular to each other.

### Step 3:



Need:

- 1x 12v power supply

There are two output wire sets. We will only need one so thoroughly wrap the second set in electrical tape.

### Step 4:



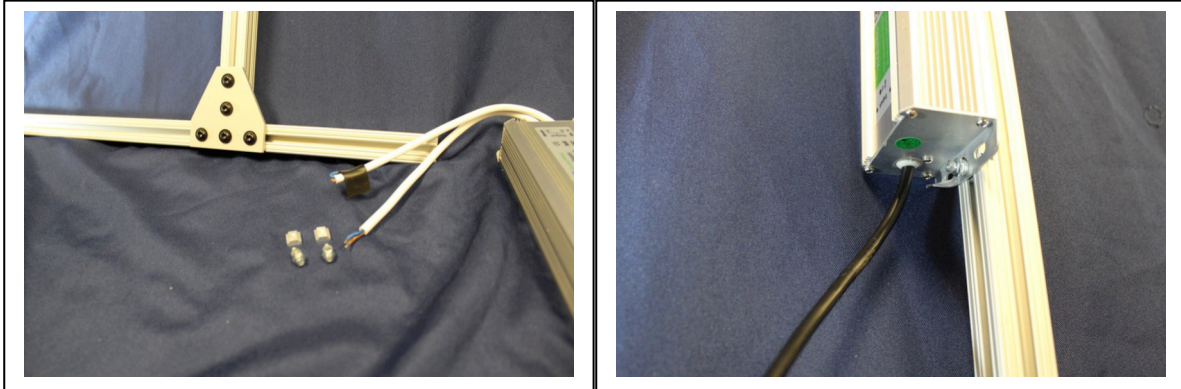
Need:

- 2x 6-32 Nylon nuts
- 2x 6-32 Flat Washer
- 2x 6-32 Socket Head Screws 1/2"

Take one of the screws and tighten a nylon nut all the way to the top and then add the flat washer onto the end. Repeat for the remaining screw.



## Step 5:

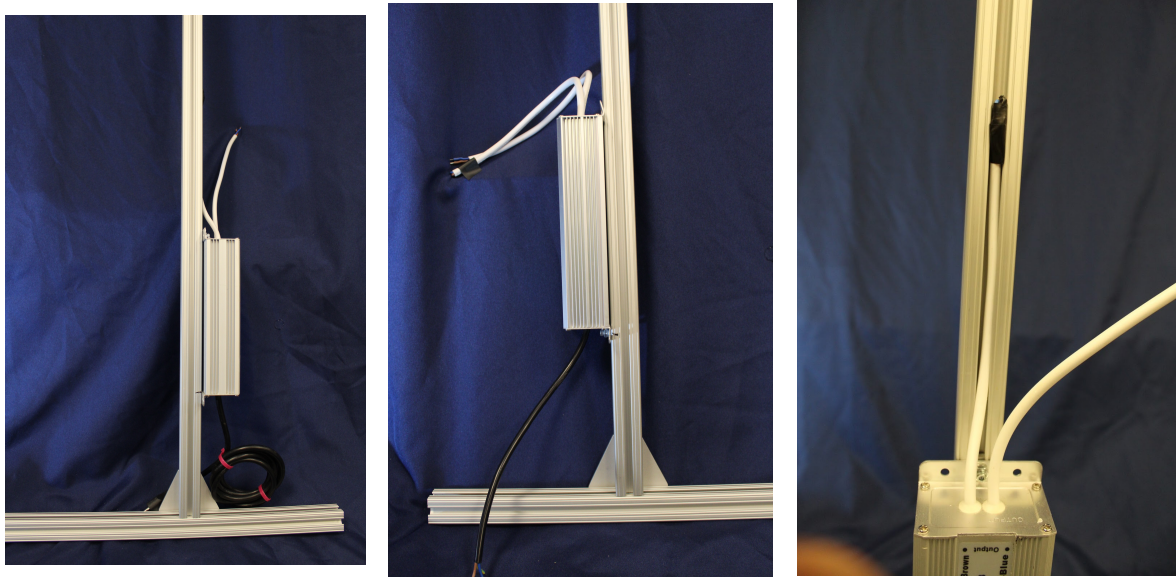


Need:

- 2x Single 80/20® Mounts
- 12v Power Supply
- 2x 6-32 Screw Assembly

The power supply has a bracket at the top and the bottom. Slide the Screw Assemblies through the center holes on these brackets. Attach to the 40" bar 6" up from the Tee Bracket.

## Step 6:



Need:

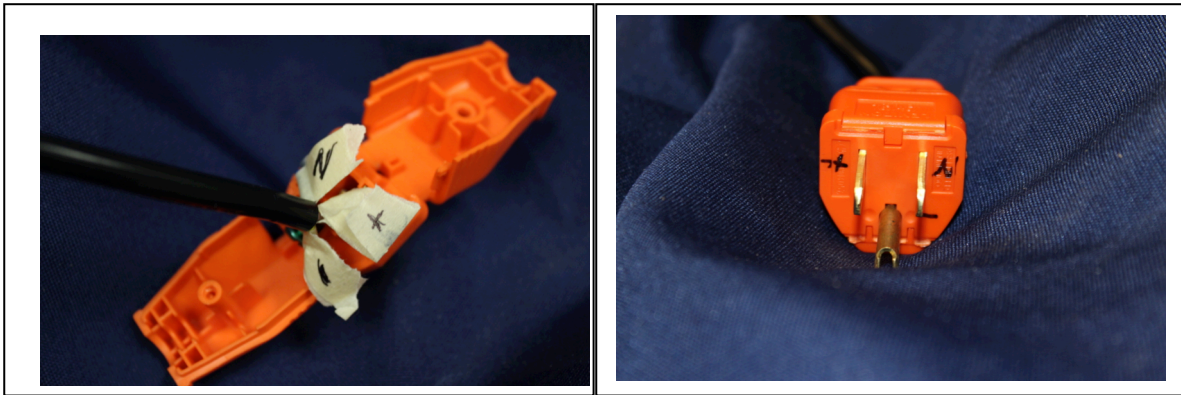
- 1x 24" 80/20® Bars
- 1x Tee Surface Brackets
- 1x Tee Surface Bracket Fasteners
- 1x 40" 80/20® Bars
- 2x 6-32 Nylon nuts
- 2x 6-32 Flat Washer



- 2x 6-32 Socket Head Screws 1/2"
- 1x 24v Power Supply
- 2x Single 80/20® Mounts

Now we need to repeat this process, mirroring the built leg and replacing the 12v Power Supply with the 24v Power Supply.

### Step 7:



Need:

- 2x Grounding Plug

Finally, the power supplies need plugs in order to receive power. These connections simply screw in and do not require soldering. The blue wire is neutral and connects to the larger hole, or, from the front, the right prong. From the same point of the view the left prong connects to the brown wire and is positive, and the bottom is ground and connects to the yellow wire. Ensure that each wire is thoroughly screwed in.