Strummer: MotorSide

In this section, you will be assembling half of the strumming structure. This half contains the motor that drives the pick across the strings.

Bill of Materials:

<table>
<thead>
<tr>
<th>Name</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-32 Socket Head Screw ¼&quot;</td>
<td>4</td>
</tr>
<tr>
<td>6-32 Socket Head Screw ½&quot;</td>
<td>8</td>
</tr>
<tr>
<td>6-32 Socket Head Screw 1&quot;</td>
<td>4</td>
</tr>
<tr>
<td>6-32 Nylon Nuts</td>
<td>10</td>
</tr>
<tr>
<td>90 Degree Single Angle Bracket</td>
<td>1</td>
</tr>
<tr>
<td>90 Degree Flat Pattern Bracket A</td>
<td>1</td>
</tr>
<tr>
<td>½&quot; Bore Bottom Tapped Clamping Mount</td>
<td>2</td>
</tr>
<tr>
<td>8mm Face Tapped Clamping Hub</td>
<td>2</td>
</tr>
<tr>
<td>32mm Bore Bottomed Tapped Clamping Mount</td>
<td>1</td>
</tr>
<tr>
<td>Micro Switch Mount</td>
<td>1</td>
</tr>
<tr>
<td>Micro Switch</td>
<td>1</td>
</tr>
<tr>
<td>Micro Switch Screw</td>
<td>2</td>
</tr>
<tr>
<td>White Wire (4 ft)</td>
<td>1</td>
</tr>
<tr>
<td>Blue Wire (4 ft)</td>
<td>1</td>
</tr>
</tbody>
</table>

Tools

- Hex Keys
- Wire Cutter
- Wire Stripper
- Soldering Iron
- Solder
Step 1:

Need:
- 1x 90 Degree Single Angle Bracket
- 1x 90 Degree Flat Pattern Bracket A
- 2x ½” Bore Bottom Tapped Clamping Hub
- 2x 6-32 Socket Head Screw ¼”
- 2x 6-32 Socket Head Screw ½”

Holding the Flat Pattern Bracket as an “L” place the degree bracket so it is pointing toward you. Then Place the Clamping Hubs on the back of this L so that they are aligned with the bottom vertical edges. The longer screws will go through both plates.

Step 2:

Need:
- 2x 8mm Face Tapped Clamping Mount
- 4x 6-32 Socket Head Screw ½”
- 4x 6-32 Socket Head Screw 1”
- 8x 6-32 Nylon Nuts

The extrusion of the clamping mounts will slot into the two bottom-most holes of the “L” shaped bracket. Then face the tightening mechanism of them toward the center. Again, the longer screws will go through both plates.
Step 3:

Need:
- 2x 6-32 Socket Head Screw ¼"
- 1x 32mm Bore Bottomed Tapped Clamping Mount

Take the clamping mount and attach it to the frame at the inside top of the ‘L’ part of the bracket.

Step 4:

Need:
- 1x Micro Switch
- 1x White Wire
- 1x Blue Wire

Solder the white wire to the hinge side of the micro switch, labeled and the blue to the middle section.
Step 5:

Need:
- 2x Micro Switch Screw ¼”
- 1x Micro Switch Mount

Align the switch and mount so that the holes are aligned and the edges are parallel. Screw together using the screws provided with the micro switch.

Step 6:

Need:
- 1x Assembled Micro Switch
- 2x 6-32 Socket Head Screw ½”
- 2x 6-32 Nylon Nuts

Take the assembled micro switch and attach it to the outermost edge of the angled bracket.
Step 7:

Need:
- 1x DC Motor with Encoder

Align the switch and mount so that the holes are aligned and the edges are parallel. Screw together using the screws provided with the micro switch.