

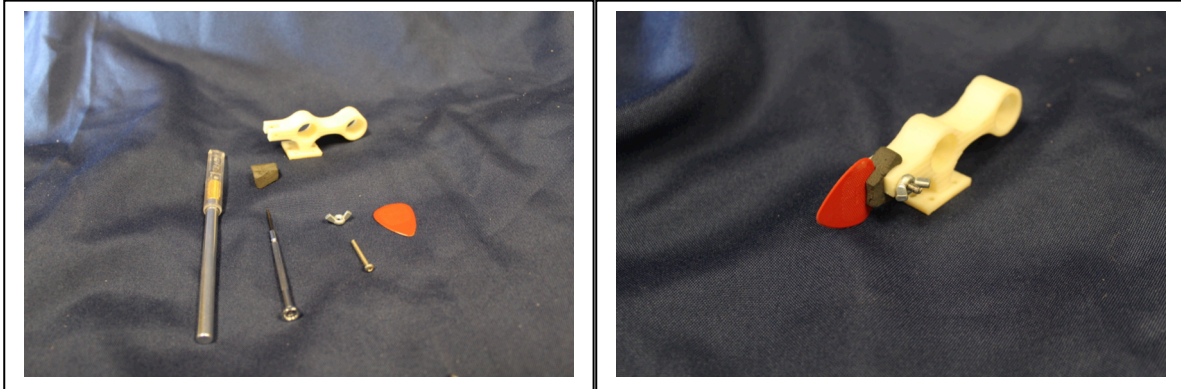
Strummer: Assembly

In this section, you will assemble all of the components of the strumming system that you have built thus far.

Bill of Materials:

Name	Number	Tools
Pick 3D Print	1	Hex Keys
Pick	1	Mini Screwdriver
Rubber cut to ½" x ½" x ¾"	1	Precision Knife
Linear Ball Bearings	2	Super Glue/ Epoxy
Snap Rings	4	File
½" Aluminum Tubing	2	Scissors
Dual Pinch Bolt, Face Tapped Clamping Hubs, 0.770" Pattern	2	
15" Aluminum Channel	1	
6-32 Socket Head Screw ½"	2	
6-32 Socket Head Screw 1"	8	
6-32 Nylon Nuts	10	
MotorSide Strumming Assembly	1	
8mm Shaft 300mm	2	
Pick Strummer Assembly	1	
PulleySide Strumming Assembly	1	
XL Time Belt	1	
Flat Channel Bracket A	1	
Zip Ties	3	
M3-25mm Bolt	1	
M3 Nut	1	

Step 1:

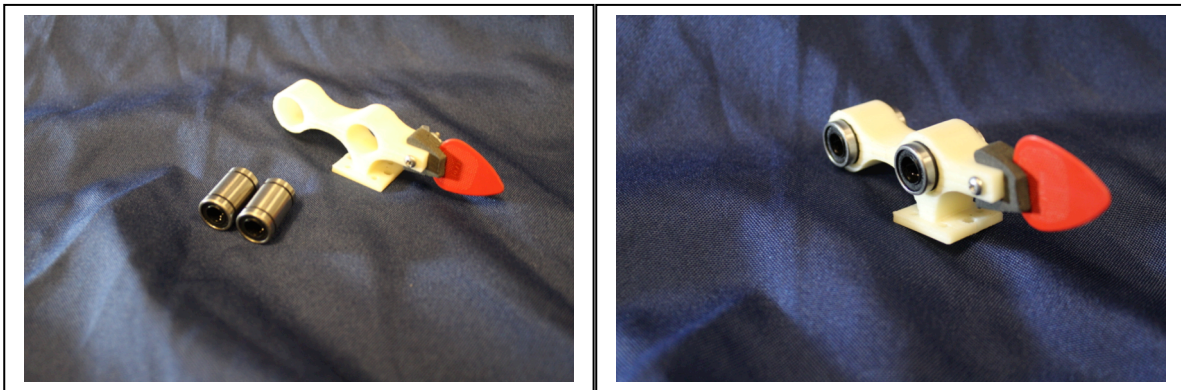


Need:

- 1x Pick 3D Print
- 1x Pick
- 1x Rubber cut to $\frac{1}{2}$ " x $\frac{1}{2}$ " x $\frac{3}{4}$ "
- 1x M3 25mm bolt
- 1x M3 nut

Take the cut piece of rubber and place it into the open end and pierce a hole through it with the mini screwdriver. Fit the bolt through the hole and the 3D print and secure it with the nut. Finally make a small incision at the far end of the rubber, place the pick and adhere it to the rubber.

Step 2:

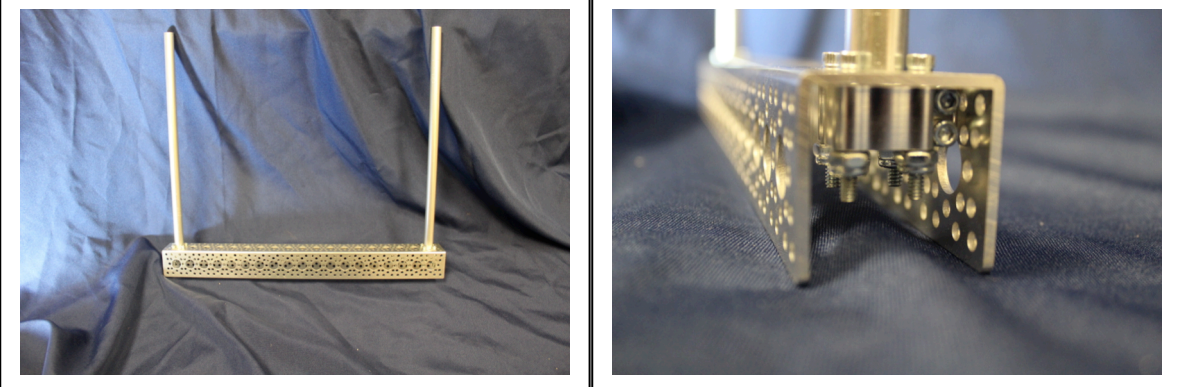


Need:

- 2x Linear Ball Bearings
- 4x Snap Rings

The two remaining large holes of the print are for the linear ball bearings. They slot in using a friction fit and are further held in place by putting the snap rings in the divots on the outer edge of each bearing.

Step 3:

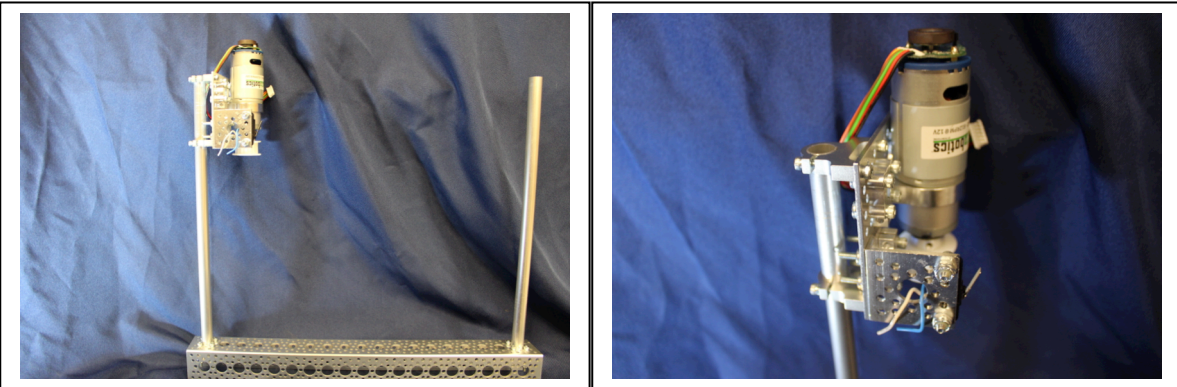


Need:

- 2x ½" Aluminum Tubing 1 ft.
- 2x Dual Pinch Bolt, Face Tapped Clamping Hubs, 0.770" Pattern
- 1x 15" Aluminum Channel
- 8x 6-32 Socket Head Screw 1"
- 8x 6-32 Nylon Nuts

Placing the channel so that it makes an 'n' shape. From here attach the clamping hubs to the inside on the top at the two outer most holes, ensuring the tightening screws face outward. Once secure, push the tubes through the top of the outer holes and through the clamps; then tighten them.

Step 4:

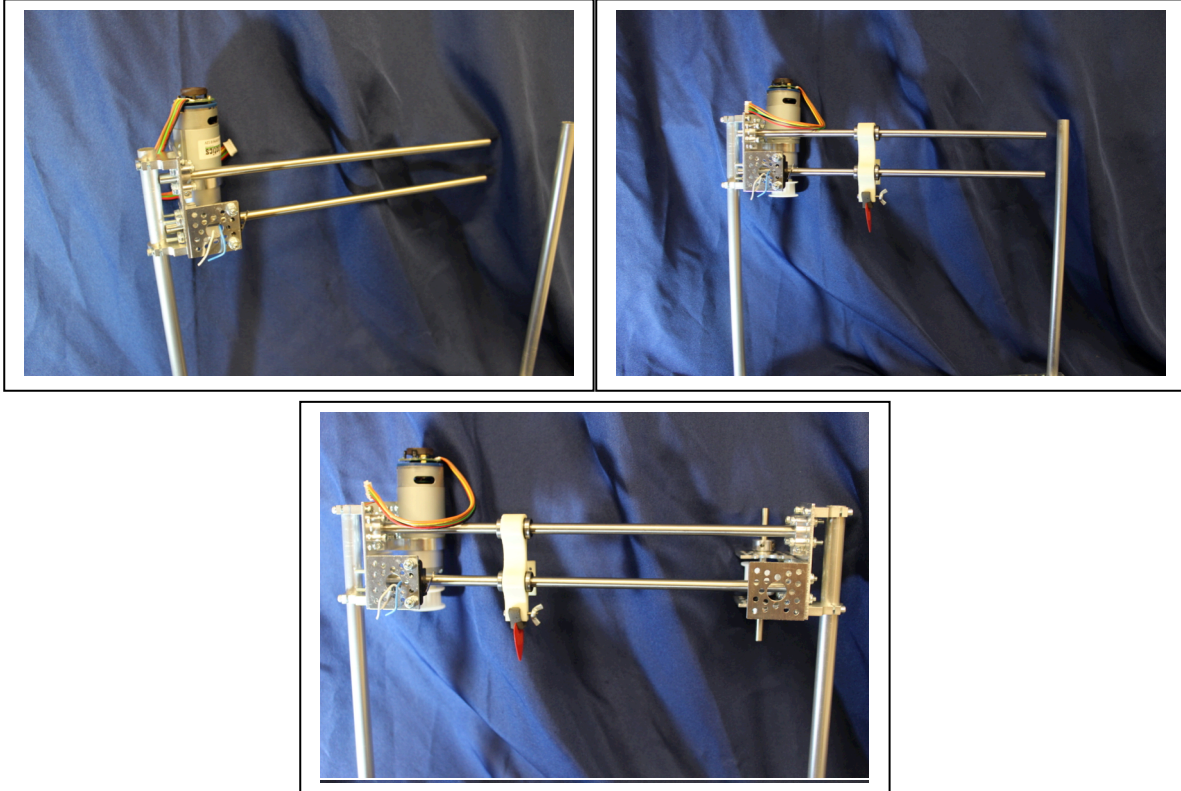


Need:

- 1x MotorSide Strumming Assembly

Slide the two pieces of the open clamps on the MotorSide Assembly onto one of the tubes and secure so that it no longer slips down.

Step 5:



Need:

- 2x 8mm Shaft 300mm
- 1x Pick Strummer Assembly
- 1x PulleySide Strumming Assembly

Slot the two 8mm shafts into the clamping hubs on the motor side until they connect with the aluminum tube. Slide the assembled 3D print pick onto the 8mm shafts. Then slide the PulleySide assembly onto the open tube ensuring that the pulley is on the same side as the motor. Then slide the 8mm shaft so that it is in the clamping hub of both sides equally and tighten them.

Step 6:

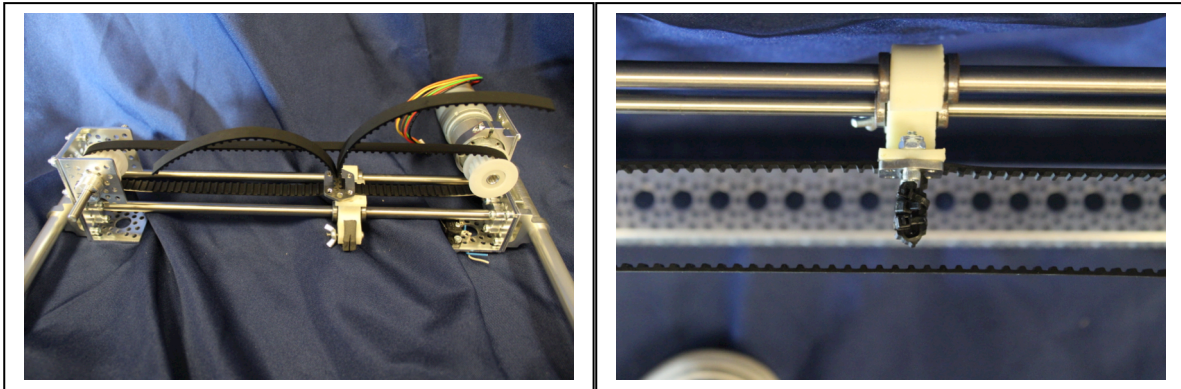


Need:

- 1x XL Time Belt
- 1x Flat Channel Bracket A

Pull the belt into a circle so the ridges are in the inside. Then feed each end through the bracket so that the smooth end of the bracket is facing the inside of the circle

Step 7:



Need:

- 1x XL Time Belt
- 1x Flat Channel Bracket A
- 2x 6-32 Socket Head Screw 1/2"
- 2x 6-32 Nylon Head
- 3x Zip Ties

Wrap the belt around the pulleys and align the bracket with the holes on the print. Pull the belt through the bracket until it is taught around the pulleys. Then, Attach the bracket to the print using the larger two holes. Finally, use the zip ties on the belt's loose end and cut off the excess.