

Step 5: Adding Velcro Straps

Materials

3D Printed Motor and Battery Housing from Step 3

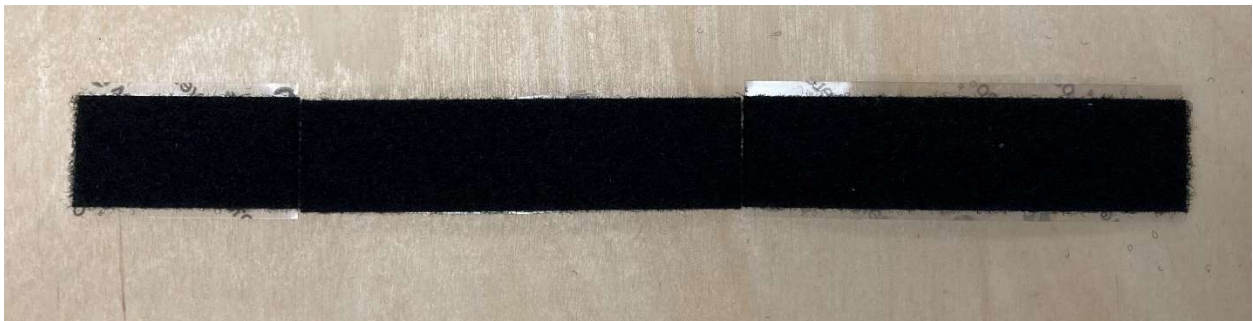
3D Printed Strap Clips from Step 3

Velcro

Tools

Scissors

The Velcro straps are attached to the Motor and Battery Housing so that users do not have to rely on grip strength to hold and operate the device. It also prevents the device from falling out of the user's hand.



1. Cut a piece of the loop (soft) Velcro that is 10 inches long.



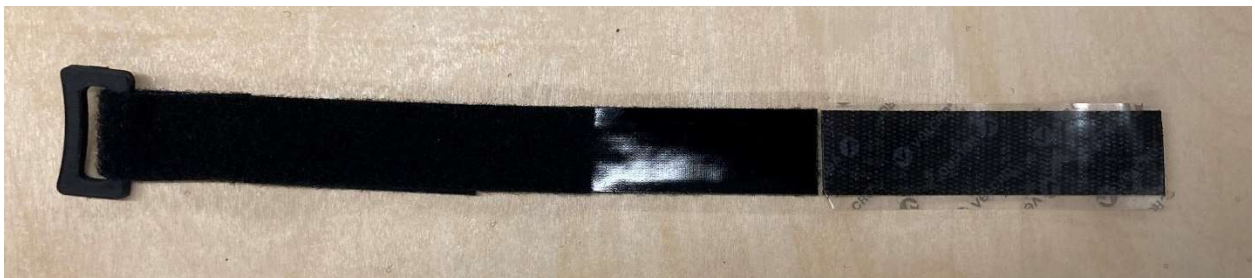
2. Cut 4 inches of the adhesive backing off. Take one copy of Strap Clip 2 and slide it on 2 inches down the Velcro where the adhesive is exposed.



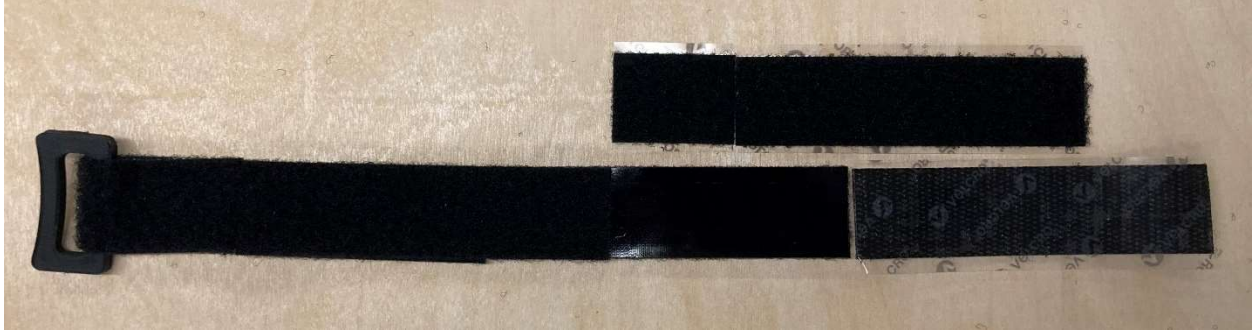
3. Fold the Velcro over the straight side of the clip and press down to adhere the Velcro to itself around the clip.



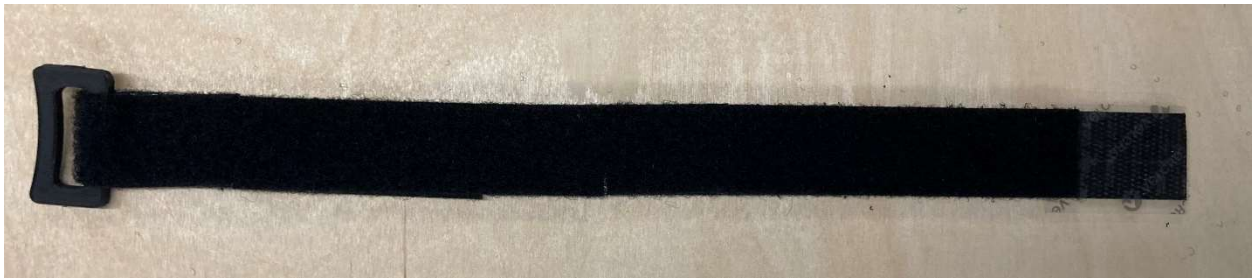
4. Remove the adhesive backing from the remaining strip. Cut a 4 inch piece of the loop (soft) Velcro. Remove its adhesive backing and attach to the longer strip starting at the end with the clip. There should be about 2-3 inches of exposed adhesive at the bottom.



5. Cut a 4 inch piece of hook (hard) Velcro. Align with the bottom of your strap.



6. Cut a piece of loop (soft) Velcro that goes from where the exposed adhesive on the strap starts to 2 inches before the hook Velcro ends.



7. Attach the loop Velcro to the strap, but leave the adhesive backing on the final two inches of the strap. Press firmly along the entire length of the strap to ensure proper adhesion.



8. Slide the hook (hard) end of the strap through the bottom strap slot in the Motor and Battery Housing with the adhesive backing facing up.



9. Pull the strap through until only about two inches are exposed.



10. Insert the hook end of the strap back through the strap slot just above. Pull until tight.



11. Insert the hook end of the strap into the third strap slot from the bottom.



12. Inside the top compartment, guide the strap back through the top slot. This may take some patience.



13. Wiggle the strap to pull it tight.



14. Put the strap through Strap Clip 2.



15. Peel off the adhesive backing on the end of the strap. Guide the strap through Strap Clip 1 and have the straight edge of the Strap Clip touch the adhesive at its midpoint. Fold the adhesive over around Strap Clip 1 and adhere the two sides of the strap together, leaving no exposed adhesive.



16. Repeat the above steps to add a strap to the other side.