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# Above-Elbow BCMF prosthetic arm Manual

By Queens Biomedical Innovation Team, the Perk Lab and the Med-i Lab.

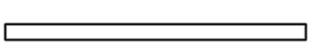
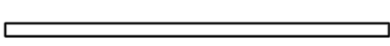
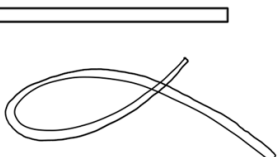



Med-i Lab

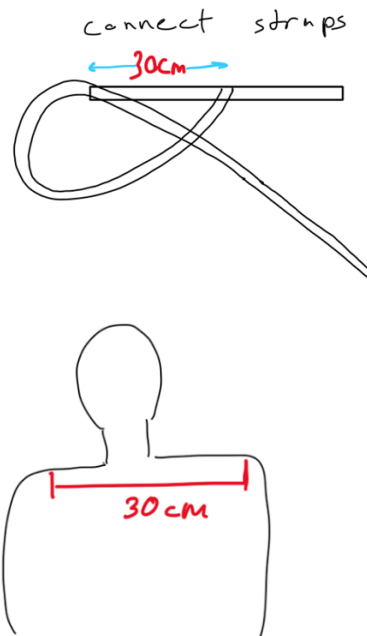
## Pieces to 3D print

1. Gripper Hand and thumb
2. Wrist bolt
3. Kwawu 2.0 modified forearm
4. Shoulder

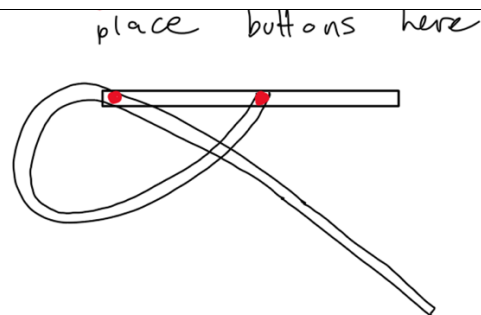
## How to Assembling the Harness

Instruction	Drawing	Photo Example
<ul style="list-style-type: none"> <li>- Cut two black straps</li> <li>- One strap should be 66 cm, and the second strap should be 140 cm</li> <li>- Lay strap 1 (66cm) flat on the ground</li> <li>- Take the second strap (140 cm) and make a loop by crossing it over itself</li> </ul>	<p>Cut 2 straps</p> <p>①  66cm</p> <p>②  140cm</p> <p>Fold the long strap and keep the short strap straight</p> 	

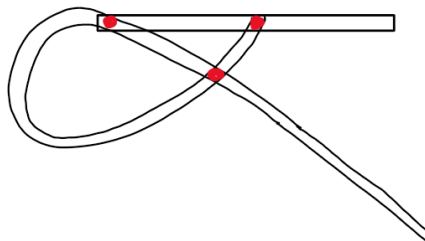
- Place strap 1 (66 cm) over the second strap (140 cm).
- Measure 30 cm between the end of the loop on the second strap and the point of connection to the first strap (like in the photo)

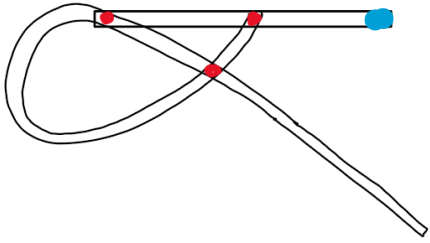
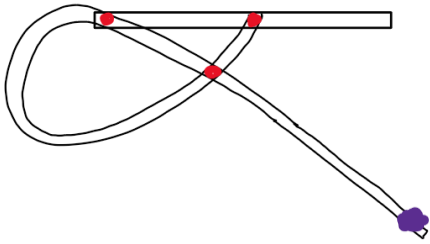


- Add the first silver/grey button at the marked red points where the straps cross like in the photo.



- Put this on the patient's back and adjust the straps to fit the patient comfortably.
- This has to be tight but with no pain for the patient.
- Add a button at the center of the straps to help secure the harness in place and ensure a snug fit.



<ul style="list-style-type: none"> <li>- Attach this blue section onto the shoulder with a silver button</li> <li>- There are 2 holes in the shoulder, please put it on the front one</li> </ul>	 <p>The diagram shows a line representing the arm and shoulder. A horizontal bar is attached to the shoulder area. A blue rectangular section is attached to the front of the shoulder with a red dot. A red dot is also on the bar. A line loops around the shoulder and extends downwards, ending in a red dot. A blue dot is at the end of the horizontal bar.</p>	
<ul style="list-style-type: none"> <li>- Drill a hole in the forearm to attach the purple section to it with a button</li> <li>- Test this with a patient to see where it is the best to drill a hole to move the arm.</li> </ul>	 <p>The diagram shows a line representing the arm and shoulder. A horizontal bar is attached to the shoulder area. A red dot is on the bar. A line loops around the shoulder and extends downwards, ending in a purple dot. A red dot is also on the bar.</p>	