

Desoldering

Materials:

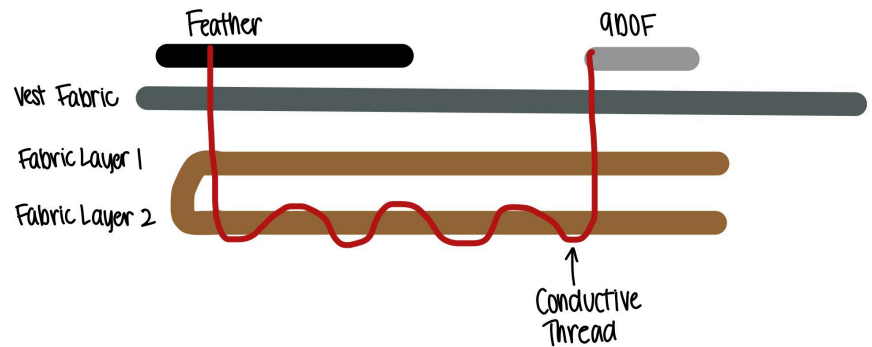
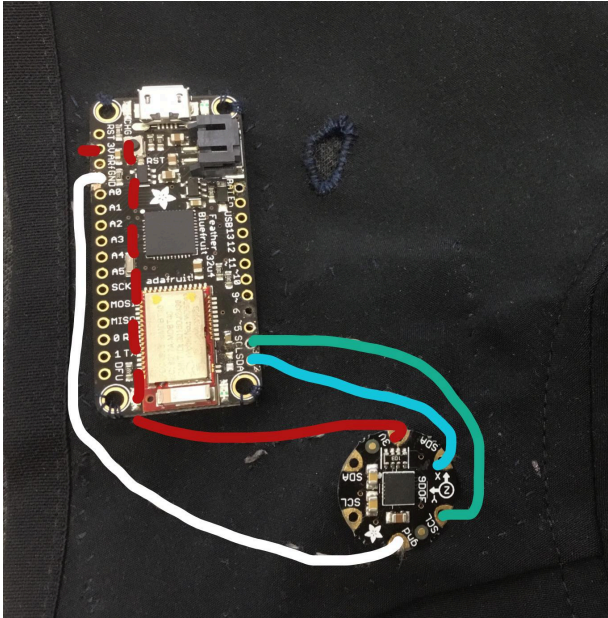
- Soldering iron
 - Stand
 - Flux
 - Copper braid
 - Dropper
- 1) Plug in and turn on the soldering iron. Take all necessary safety precautions.
 - 2) Put a bit of flux on the end of the copper braid, using the dropper.
 - 3) Press the copper braid onto the excess solder with the soldering iron.
 - 4) Move the tip of the soldering iron around. The braid should be picking up solder and turning silver.
 - 5) When very little solder is left, push the tip of the soldering iron straight down into the pin hole. This should remove all of the solder.
 - 6) Check that the hole is clear.
 - 7) If the hole is still blocked, repeat steps 3-6 until the hole is clear.

Using Conductive Thread

Materials:

- Conductive thread
 - Needle- narrower than the holes in the 9DOF and board but large enough to allow the conductive thread through
 - Clear nail polish
 - Scissors
- 1) Cut a piece of thread that is slightly less than your arm span so that you will have a comfortable time sewing.
 - 2) Thread your needle.
 - 3) Make a knot at the end of your thread.
 - 4) Go around the holes of your board / 9DOF several times: make sure it is tightly bound to the pad.
 - 5) Use a running stitch to reach the other component.
 - 6) Make sure that the “pathways” of each conductive thread do not touch; they will short-circuit.
 - 7) Repeat step 5.
 - 8) If the threads must cross paths,
 - 9) Tie a knot and secure your stitches.
 - 10) Cut the excess thread very closely; you may short circuit your system if the threads intersect.
 - 11) Dab the knot with a bit of clear nail polish to secure and prevent fraying.

- 12) Repeat with every connection that used to have an alligator clip connecting them.
- 13) If the pathways must intersect (like this image below), sew a piece of cloth underneath and sew the conductive thread along this cloth.



Upload the Code

- 1) Copy all of the code in the document to the left, called “Code.”
- 2) Paste it into a blank Arduino document.
- 3) Go to **Tools > Board** and make sure that it is communicating with the board “Adafruit Feather 32u4”
- 4) Underneath board, there is **Port**. Make sure that the Feather is showing up there, as well.
- 5) **Compile** the code by pressing the check mark.
- 6) **Upload** it to the Feather.

Using the Bluefruit App

- 1) Open the Adafruit Bluefruit app.
- 2) Connect to the device called “Adafruit Bluefruit LE” by pressing **Connect**.
- 3) Tap on **UART** to open the UART port.
- 4) Values should start pouring in!