

How to program the MCU:

1. Plug MCU into laptop using USB-C cable
2. Open VSCode
3. Click "File" in the top left corner, then "Open new folder"
4. You should see an external device attached to your laptop called "CIRCUITPY", open the contents of that device in VSCode
5. Run "pip install circup" in the VSCode terminal
6. Run "pip install mpremote" in the VSCode terminal
7. Copy and paste the contents of [this github file](#) into code.py . This file should have the Bluetooth code already uncommented, so it should be good to run with no changes, with the current circuitry (MCU -> mux -> haptic driver ->LRA).
 - a. The current Bluetooth code waits for a connection. Once it gets a connection, the **blue LED** on the MCU will light up.
 - b. It sends the IMU acceleration once a second to whatever it's connected to.
 - c. If you send "61" in hex to it, it will print "FIRST" in the mpremote terminal, and vibrate. If you send "62" in hex to it, it will print "SECOND" in the mpremote terminal, and vibrate a different pattern. If you send anything else, it will print "THIRD" in the mpremote terminal, and vibrate a third unique pattern.
8. Run "circup install --auto" in the VSCode terminal
 - a. If you get any **error messages** when running the code (Ctrl d in the mpremote terminal) that say "missing import: __" or "__ not found", run "circup install ____" and it will fix the error.
9. Run "mpremote repl" in the VSCode terminal, this will also rename your terminal to "mpremote" and you will not be able to exit this shell. To run commands in your terminal, open a new tab.
 - a. Ctrl d in the mpremote terminal to run code
 - b. Ctrl c in the mpremote to end running the code

Testing device without connecting to laptop:

1. Make sure that the code has been saved to the device (pressing Ctrl - s to save the file in VSCode will do this), and unplug the device from your laptop.

2. The MCU will automatically run the code until it ends (the Bluetooth code has a while True loop, so it will never end).
3. If you wish to restart the code (for example, to set up a new bluetooth connection), press the reset button on the MCU once quickly (twice will erase the code from the MCU entirely).