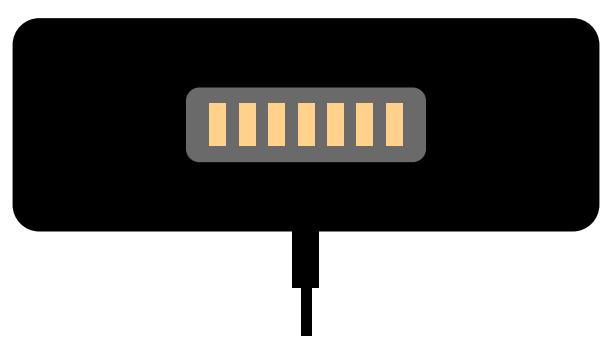

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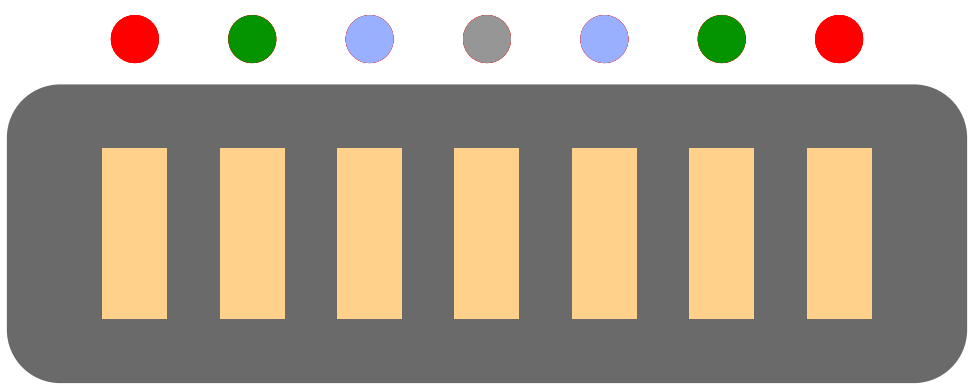
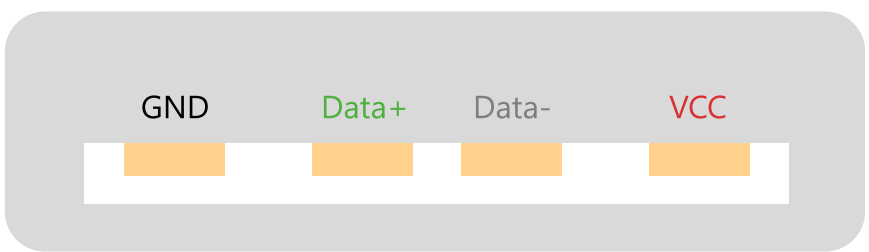


Each pin was tested using multimeter set to detect continuity, displaying the results seen above. A different color signals a different set of matching pins. So sure, now we know what pins match. But what does each set correspond to on the USB side? The USB standard pin out for a cable is as follows:



Now, keeping this in mind, let's test the charger pins with those on the USB cable, hopefully obtaining the accurate pin configuration for Band 1's charger.

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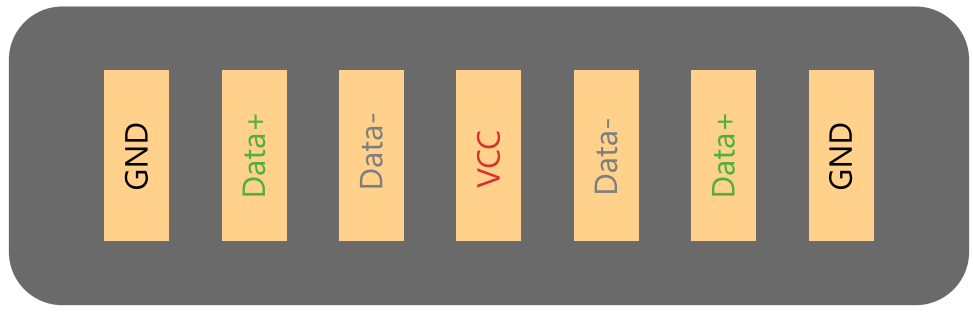
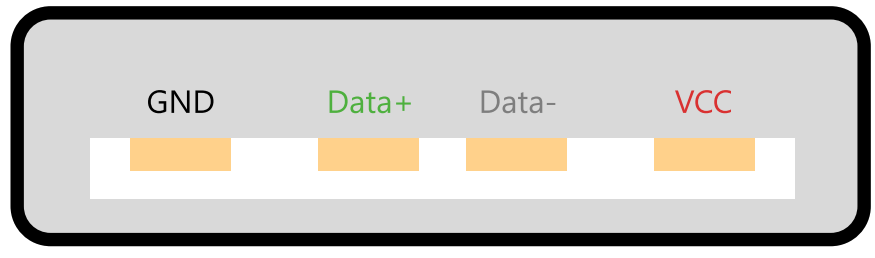
Obtaining the pin out was easier said than done, due to the weird pin configuration on the connector to the Band. I hit my first roadblock trying to actually probe the USB male end of the charger, because the contacts weren't recessed, making it very hard to maintain a stable connection between the multimeter probe and the cable. So I thought of a simple fix: Use a female-to-female adapter that had recessed pins in the port. This fix was easy, but the pins were flipped since it's an FTF adapter. I worked through this on paper, and that looked something like this:

With a diagram of the output, I can finally map the pins. Also, quick note, the Band USB side has a grounded shield, which is why there is a black stroke around the inside. The adapter did not have a grounded shield. Anyways, I went through each pin, testing the continuity between the pins on the adapter and the pins on the charger. Everything was going well...until I tried to probe VCC. Nothing made an absolute connection on the multimeter, but I did notice that the continuity changed from 1 (no continuity) to around 0.600. I made a guess here and thought that there was some resistance or other circuitry not allowing a clean flow, so I decided to give this a go - with the Band itself.

To be honest, I was worried that my pin out was wrong and that I would blow up the Band. My testing method of choice was using a stripped USB cable directly on the Band's contact pins for the charger. I wrapped the red and black wires around each probe on the multimeter so that I could test on the Band and measure the voltage at the same time. I plugged the USB cable in and to my surprise, the Band booted up! My educated guess was correct after all. So finally, here is the verified pin out of the Band's charger:



Microsoft Band 1 Charger Pinout - Pdawg, September 2023



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