

Assembly instructions

This is a documentation of the production of the ring

What you need:



- 3-D Print of Ring
- Flex PCB
- Cables
- PCB
- Screws M 1.8
- Seeed XIAO BLE (Sense)
- Battery 40 mAh

1. Step

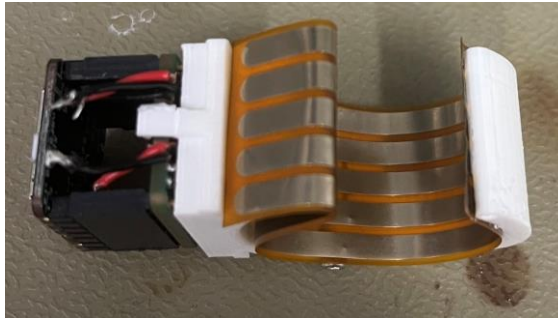


Fasten the two halves of the ring with a screw and a nut. Glue the screws into the four holes on the opposite side so that the screw head has a small distance to the ring (so that the rubber is better clamped).

2. Step

Solder the PCB together with the help of the Altium Files, there is also a Parts list in <https://github.com/eth-siplab-students/t-st-2022-WearableTouchDetection-FabioBazzi/tree/master/source/PCB/PCB-Final>

3. Step



Using double-sided tape, attach the Flex PCB to the ring. If the Flex PCB does not make contact with the finger, an additional sealing material can be glued between the ring and the Flex PCB.

4. Step



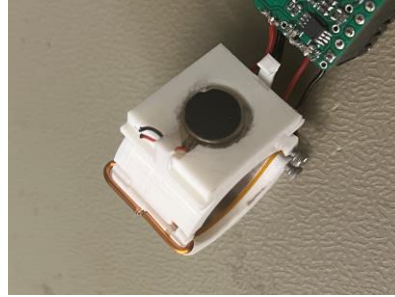
Connect the battery to the Seesee XIAO BLE (Sense)

5. Step



Connect the vibration motor to the PCB

6. Step



Glue the vibration motor into the housing (I used hot glue)

7. Step



Connect the transmitter, the shield and the receiver as follows on the picture. You can now load the following codes onto the microcontroller.

8. Step



The rubber band can now be clamped to close the ring