

Assembling your LimiFrog module

If your version of LimiFrog features no display and perhaps no case, just ignore the steps that pertain to these features.

Step 1: Beware of static electricity

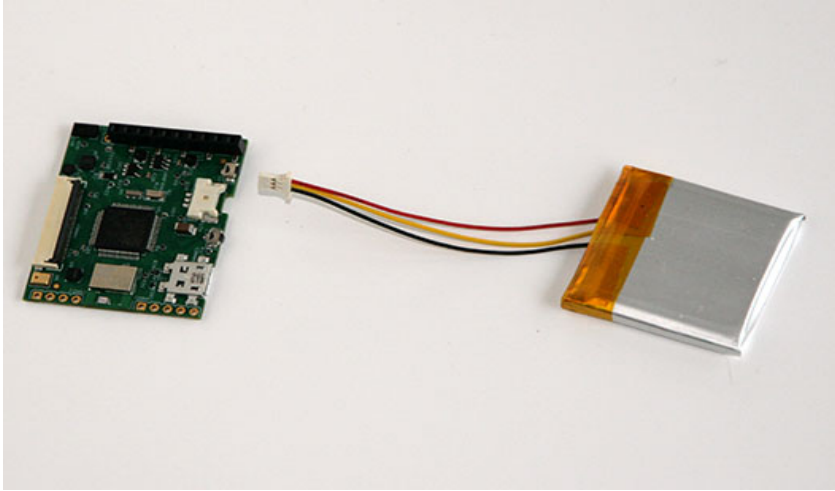
First make sure you are not electrically charged.

To that aim, you could for example touch a metal part that is grounded to earth.

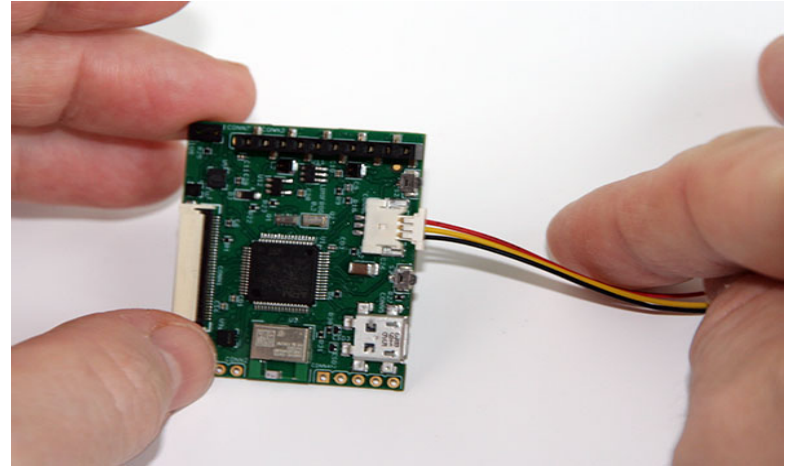


This is because, although reasonably well protected by specialized internal structures, integrated circuits can be damaged by electrostatic discharges (ESD)

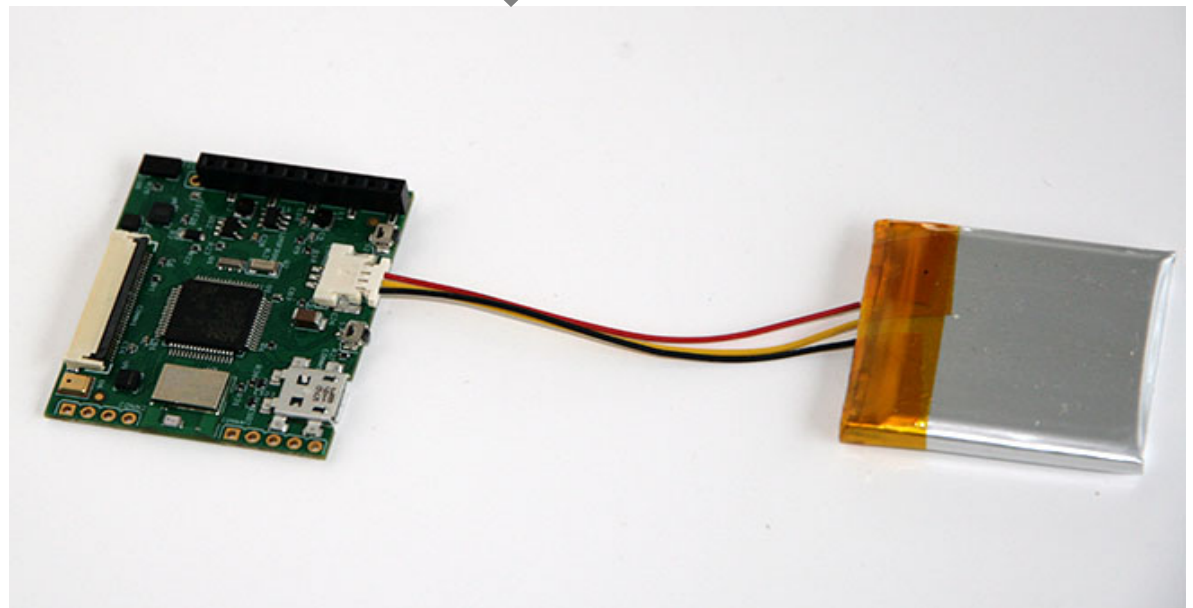
Step 2: Connect the LiPo battery



Make sure the wires run parallel to each other

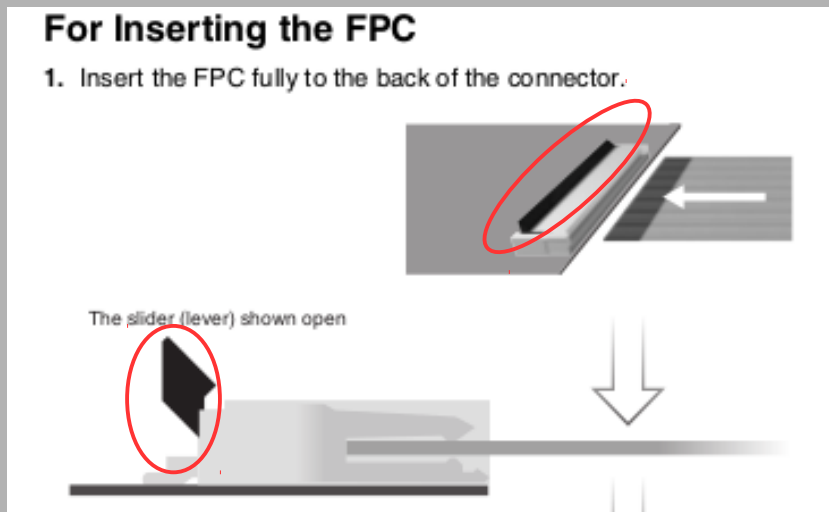


Mate male and female connectors

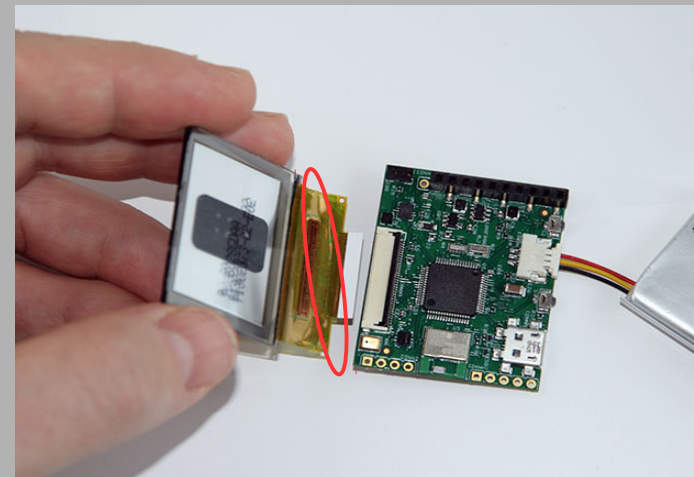


Step 3: Connect the OLED display

- a) Make sure the rotary backlock connector is **open** (pull up the black lever)
- b) Fully insert the flexible OLED connector (a.k.a FPC) into the slot of the backlock connector
- *** Pay attention to OLED orientation (face down as on photo)



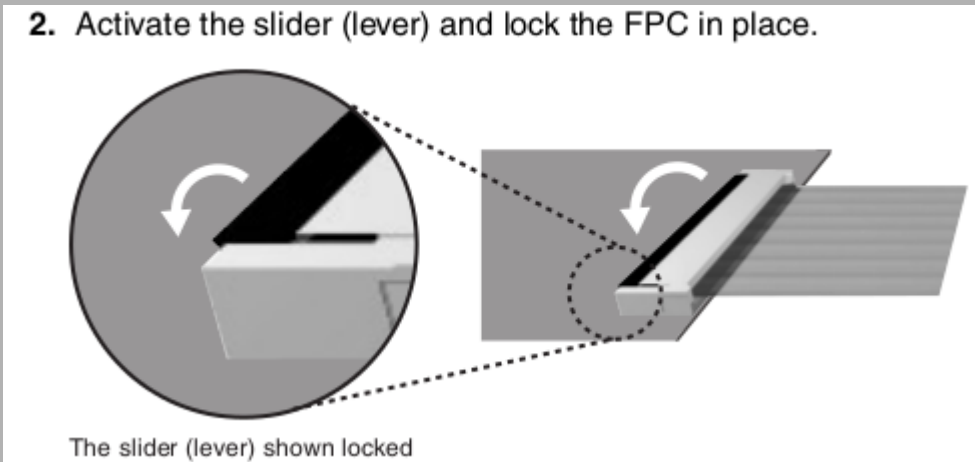
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Full manufacturer's recommendations for operating backlock connector available on LimiFrog's GitHub, documentation section:
https://github.com/LimiFrog/LimiFrog-HW/Module_Assembly

Step 3: Connect the OLED display (continued)

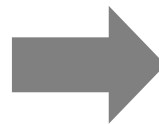
c) Lock connector by pushing down the black lever



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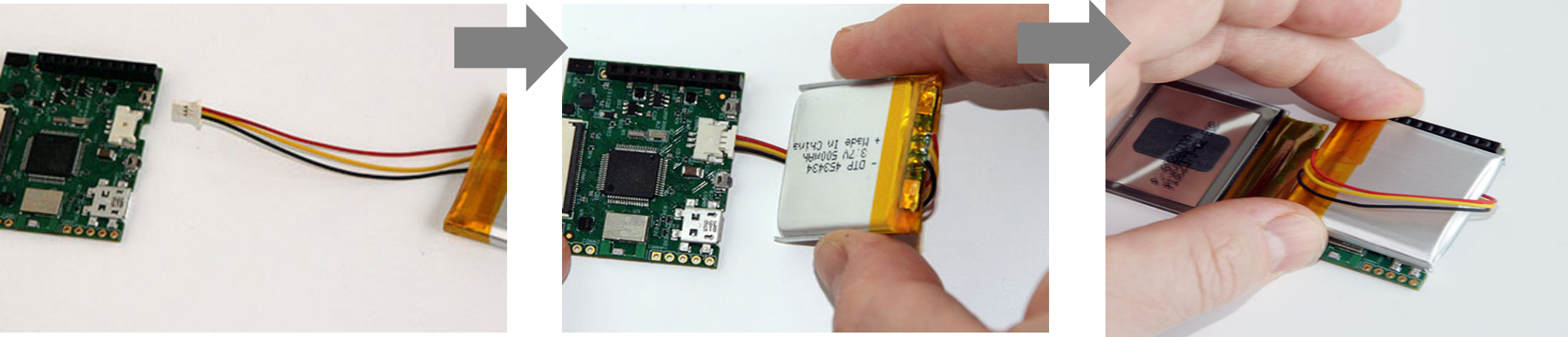
See also 'Precautions' at the end of this slide set for full details



Step 4 : Stack the battery

a) Rotate battery by 180°...

b) ...and again by another 180°



Important: Make sure the wires do not straddle. Get them to run side-by-side (to avoid extra thickness)

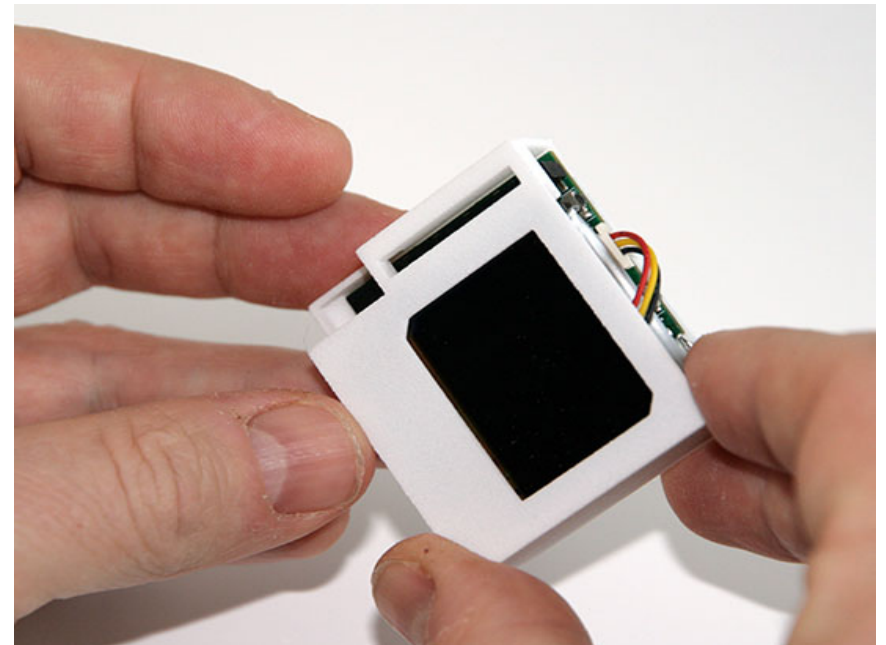
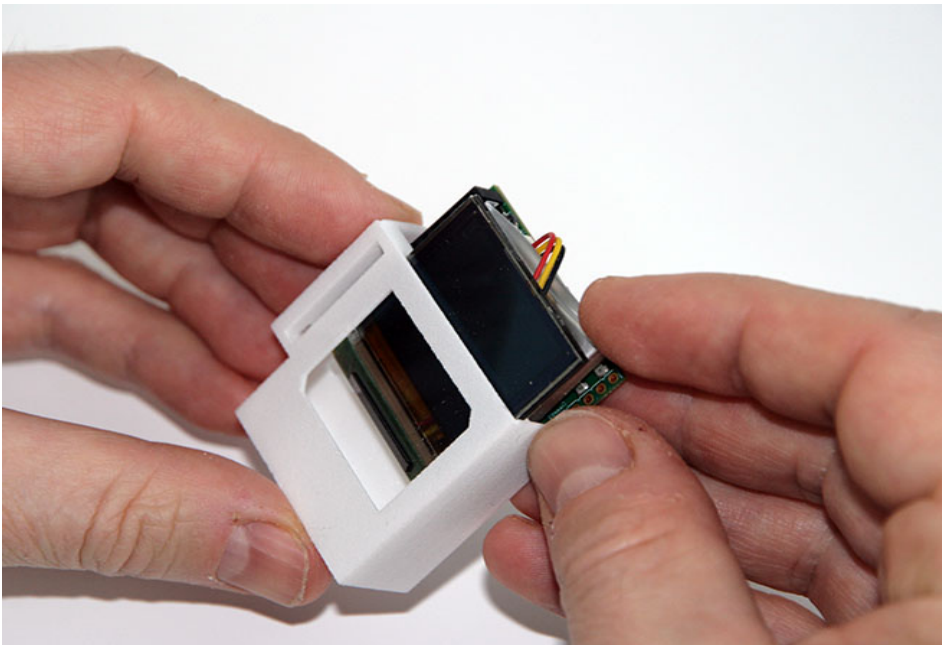
c) Optional : some adhesive tape

OK without adhesive tape, too. Tape can hold wires in place in an 'S' shape. Without tape, wires will protude slightly outside once full module is in the case (see end of this document). Not a big deal, though.



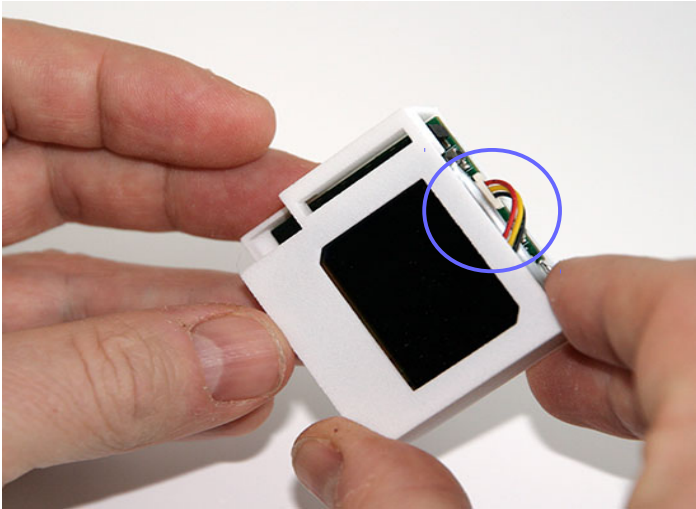
Step 5 : Stack the OLED and insert module

- a) While holding the battery in place, gently bring the OLED on top of it, (so OLED face becomes visible).
- b) Slide the stacked module into the case. The OLED is guided in rails.
*** Pay attention to the orientation when you insert the module (flexible connector down inside module, USB plug and push-button switches accessible from outside).

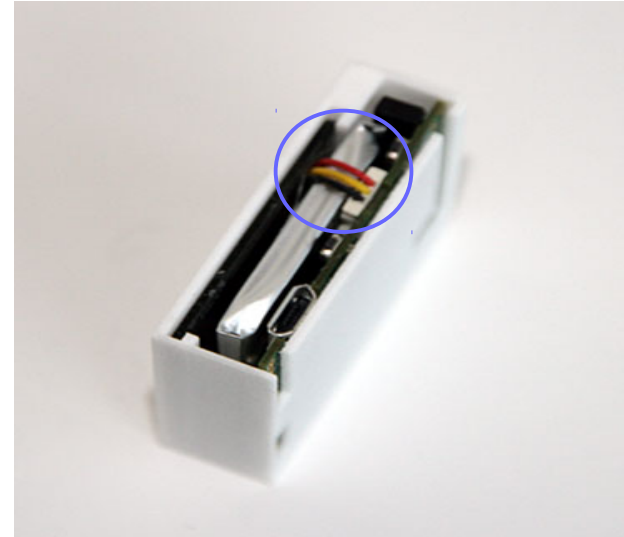


Your LimiFrog module is ready for use !

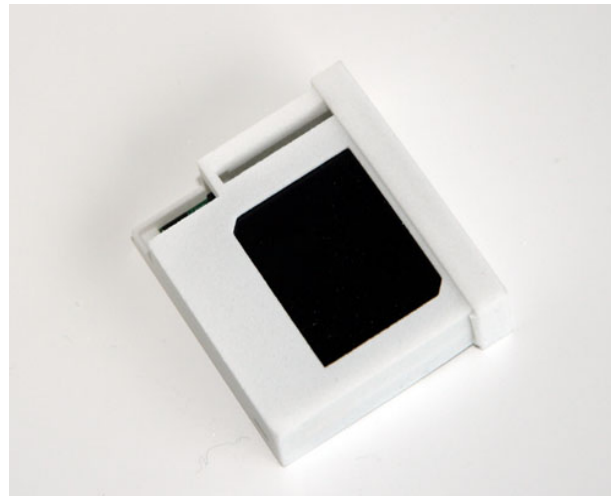
Here battery wires were not maintained by adhesive tape. They tend to protude a little outside the case (acceptable)



Here adhesive tape was used to hold the wires in a 'S' shape on top of battery and to prevent them from protuding a little.



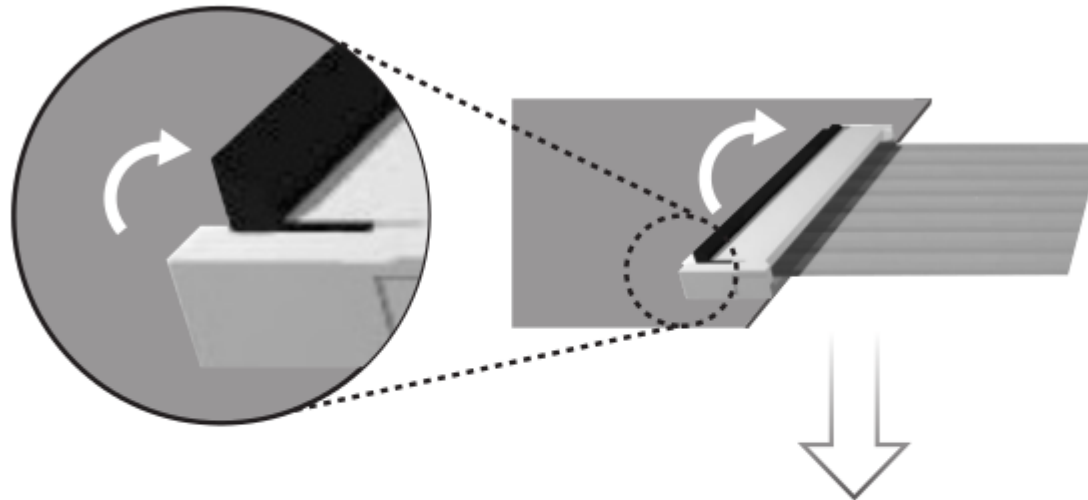
With the lid...



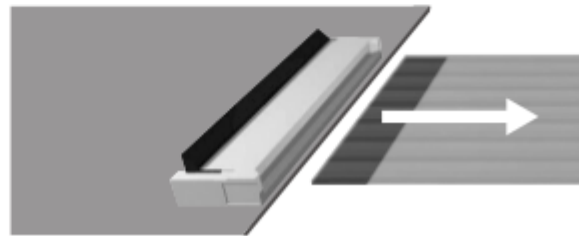
APPENDIX (1) - In case you need to disconnect the display

For Removing the FPC

1. Move the slider (lever) upwards to disengage the locking mechanism.



2. Once the lock has been disengaged, pull the FPC out.



APPENDIX (2): Other precautions for FPC

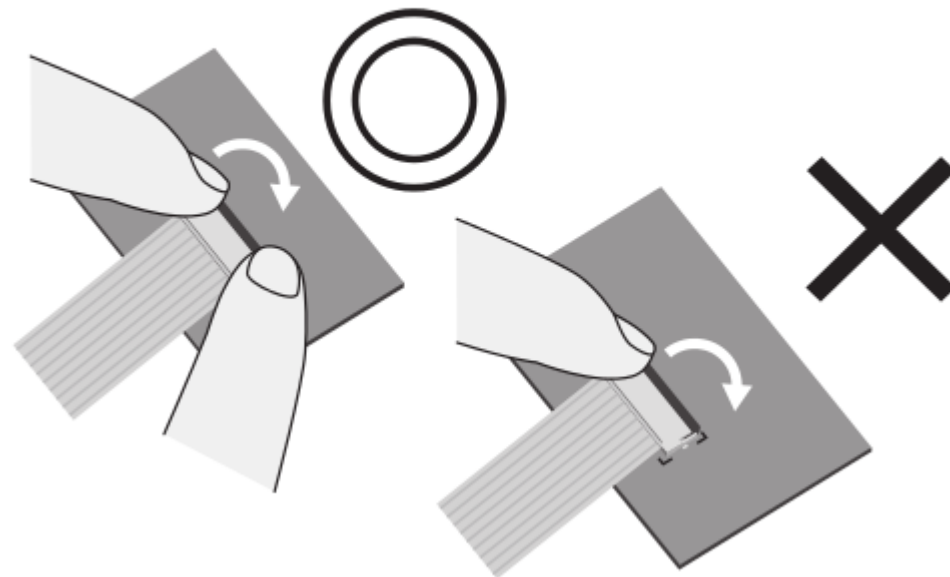
■ Precautions during Use Operation

1. Do not lock the slider (lever) without an FPC inserted. Locking the slider (lever) without an FPC inserted will increase the force required to insert an FPC.



2. Do not lock or unlock the slider (lever) with excessive force. The connector may be damaged, resulting in faulty contacts. Do not use the slider (lever) again if it becomes detached.

3. When locking the slider (lever), apply pressure with your fingertips to both sides of the slider (lever) and then depress the slider (lever) until it becomes parallel with the PCB. Failing to lock the slider (lever) properly may result in contact failure.



Do not apply force horizontally to the PCB when locking the slider (lever). The connector may be damaged, resulting in faulty contacts.

