Disclaimer/Warnings:

The following instructions are written in a fictional cyberpunk in-universe style. The assembly instructions produce an electronic cyberdeck prop inspired by various works of cyberpunk genre fiction.

Any references to illegal or unethical activity are purely for entertainment and story purposes, and not meant to promote or condone any such activities. The instructions are written as if by a shadowrunner/decker/hacker in a fictional cyberpunk setting.

Don't hit anybody with it.

1) It's not designed for that.
2) That would be illegal.
3) You are just as likely to hurt yourself with it. The "blade" is attached with a hinge and magnets.

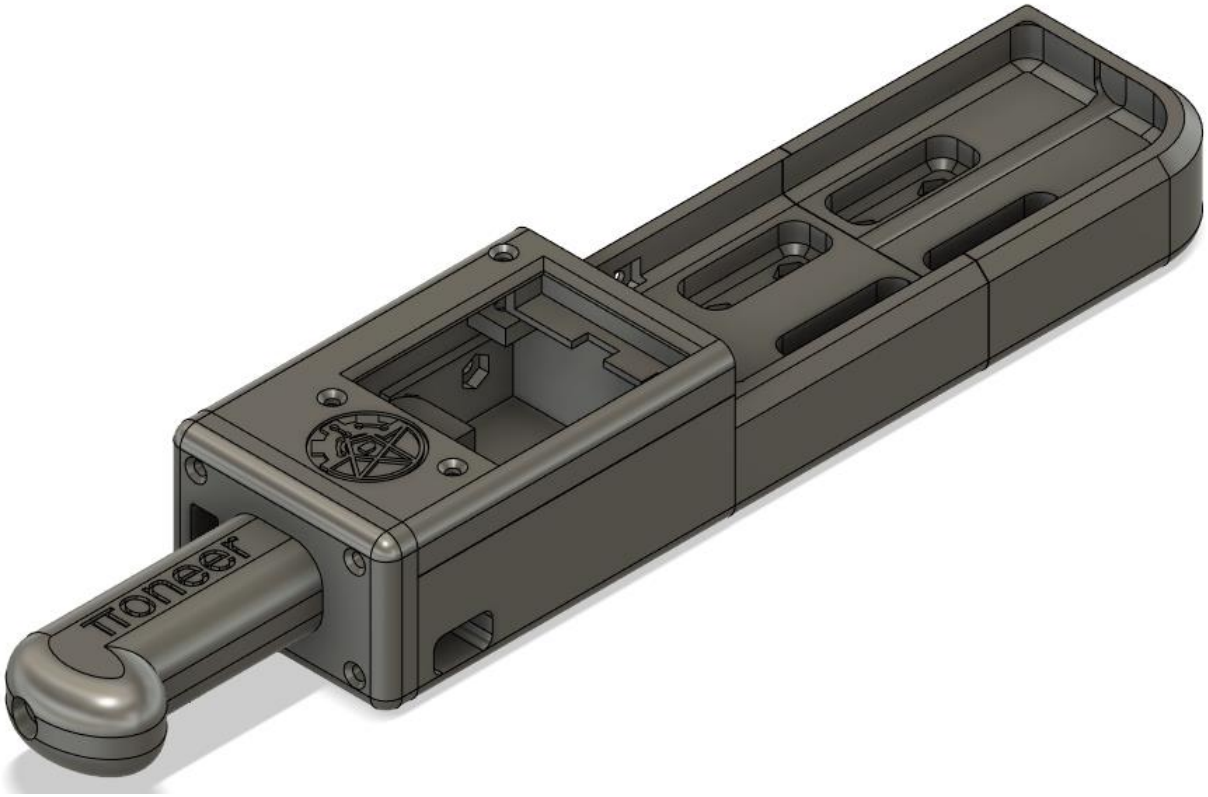
When using it, carefully rotate the "blade" into position. Don't try to flick it into the usable position. There is a bit of pinch hazard if you aren't careful with it, and you can damage the prop in the process. I may or may not have already hit my thumb more than once, and you risk damaging the USB port and wireless dongle.

Read all warnings that come with the parts used to assemble this.

Don't be an idiot. I'm not responsible for what you do with it.

Build and use at your own risk.

πoneer Falchion



https://github.com/Ralnarene/SRC001_Pioneer_Falchion

https://www.thingiverse.com/thing:4601417

Standard Runner's Constructs (SRCs):

This is part of a series of documents covering the creation and use of tools for runners. These are meant as guidelines, as a starting point. Update, modification, and personalization is *heavily* encouraged for your success and survival as a runner.

You may be reading this from one of its scattered locations on the net, a repository, or off a chip you've acquired one way or another. You may or may not have all of the constructs, as more are being added, and they may not all be easy to find. Keep looking.

If you're wondering why we are being so altruistic in sharing our knowledge… we aren't. Educating other runners means we might not get killed by the ignorance of teammates. And if we make entry into running easier, we are more likely to find people to pad out our team rosters down the line. It's self-preservation.

Introduction to the πoneer Falchion:

Every runner needs a primary weapon and a sidearm. Your primary weapon may not be the most conducive to the tight quarters you'll encounter as a runner, in which case you may need to switch to your sidearm. Deckers are no different. Sometimes you just need to slice through simple electronic locks and security through non-matrix interfaces, and unslinging and using your cyberdeck is both too slow and overkill.

Enter the πoneer Falchion.

The following comes from πoneer's documentation before they went under and their designs… became available for modding.

"The πoneer Falchion is a dagger-shaped portable microdeck for easy carry on the hip, horizontally on the back of the belt, or even in a shoulder holster. For quick access, simply unsheathe your Falchion and fold it along the hinge into the operational position. To turn it on, slide the switch in the hole on the back of the deck to the on position, and the power switch on the keyboard as well.

The πoneer Falchion's design was inspired by the Austro-Hungarian M1853 Falchion Short Sword, complete with the distinctive knob on the end of the hilt, blade shape, and data-quillions. Like the original, it is designed to clear obstacles out of the user's path."

We've since modified and improved upon it, though we've de-weaponized the original form factor (people get jumpy when you try to carry around a computer… if it's surrounded by a large metal blade). You may still get people to give you more space thinking you're carrying a big blade (though that will likely also attract the attention of security).

Note: the fancy logo on the front plate is a demonstration of where you can put your own logo in the model if you have the capability to do so. It is not included in the files.

Parts list:

5 Additively Manufactured Components

Models are located on the included datachip/file archive, and archived at the following database:

https://www.thingiverse.com/thing:4601417

Field models are to be manufactured in a durable material (resin or PETG, not PLA)

Parts include: Tip, Blade, CPU Box, Front Plate, and Hilt

Note: There is a blank space on the front plate for customization with a logo.

SRC #000: Zero Stack assembly

Rii 2.4G Mini Wireless Keyboard with Touchpad mouse

www.amazon.com/gp/product/B00I5SW8MC/ref=ppx_yo_dt_b_asin_title_o06_s01?ie=UTF8&psc=1

Micro-USB extender

www.amazon.com/gp/product/B00HAOK7XE/ref=ppx_yo_dt_b_asin_title_o06_s01?ie=UTF8&psc=1

Micro USB male to 2x USB A female splitter

www.amazon.com/gp/product/B06WPBSWHB/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

1 x Strap Hinge

www.amazon.com/gp/product/B07BXGPSFP/ref=ppx_yo_dt_b_asin_title_o05_s02?ie=UTF8&psc=1

4 x Metal Strap

www.amazon.com/gp/product/B07D8QMLPR/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

Machine screw kit in size #6-32

www.amazon.com/gp/product/B07GTZN4GJ/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

Parts needed in #6-32 Machine Screw Kit:

25 x #6-32 Hex Nuts

12 x #6-32 x 3/8" Machine Screws

8 x #6-32 x 5/8" machine screws

2 x #6-32 x 7/8" machine screws

1 x #6-32 x 1" machine screw

1 x #10-32 hex nut

www.amazon.com/gp/product/B000BQM0U6/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

1 x #10-32 x 4" machine screw

www.amazon.com/gp/product/B00F2Y363C/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

8 x 10mm dia x 2 mm Circular Neodymium magnets

www.amazon.com/DIYMAG-Refrigerator-Magnets-100-piece/dp/B0753ZPBLQ/ref=sr_1_1_sspa?crid=AMSHUN7NL24I&dchild=1&keywords=10mm+x+2mm+magnets&qid=1600466897&sprefix=10mm+x+2mm+%2Caps%2C146&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUExTlQxTUU0UEZFQzJUJmVuY3J5cHRlZElkPUEwNjEwNDI1M0hJVFBXWFBEN0hXUyZlbmNyeXB0ZWRBZElkPUEwMjgxNDI4MUxMUVo0STMxUjJWRyZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU=

Assorted Consumables:

Superglue

Clear Shipping Tape

Hot Glue Sticks

Blue Tack or equivalent (optional)

Tools Required:

Phillip's Head Screwdriver

Adjustable Wrench

Hot glue gun (Superglue on the opposite side of hot glued items could theoretically be substituted, but makes assembly riskier)

Assembly Instructions:

Parts Preparation

1. Manufacture all 3D modelled components.
    a. Continue with the following steps while the parts are being manufactured.
2. Construct Standard Runner's Construct #000: Zero Stack
    a. It will be referred to as "the stack" from here on.
    b. Set it aside.
3. Modify the splitter cable
    a. Gently remove the casing from the splitter board (the piece where 1 cable comes in and two go out).
        i. A 3d printing chisel placed in the seam and a few light taps with a light mallet crack it open easily.
    b. Wrap the board in electrical tape for protection.
        i. Make sure the tape covers the entire board as well as a portion of the black insulation of the wire in order to reduce strain.

    c. Set it aside

Blade Assembly

Parts Needed:

3D printed components:

Tip

Blade

10 x #6-32 Hex Nuts

10 x #6-32 x 3/8" Machine Screws

2 Metal Straps

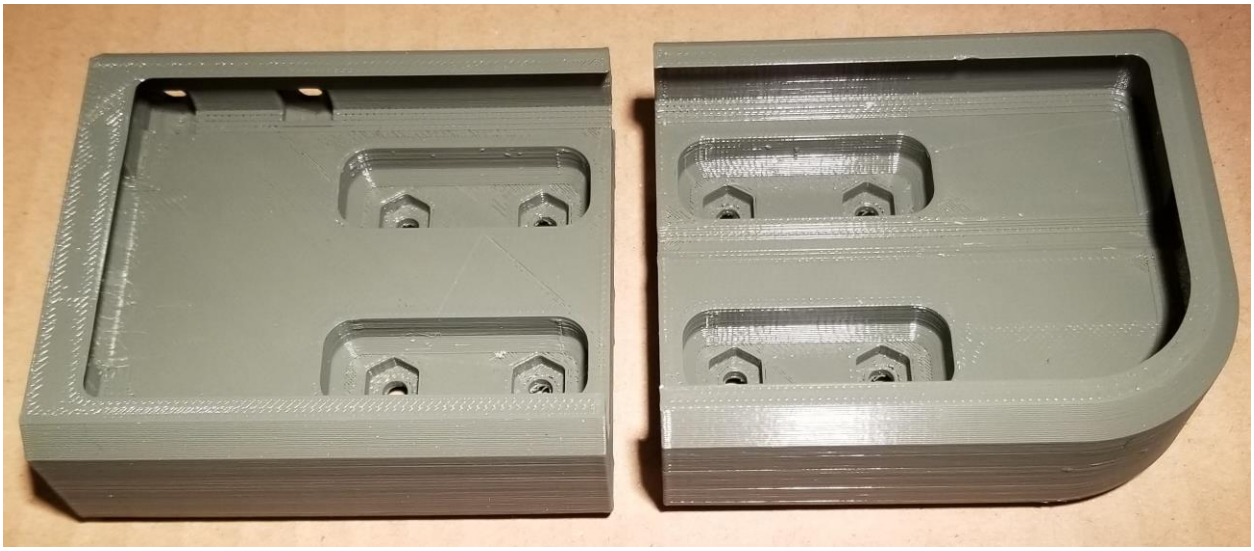
1 Metal Hinge

1 Rii Keyboard

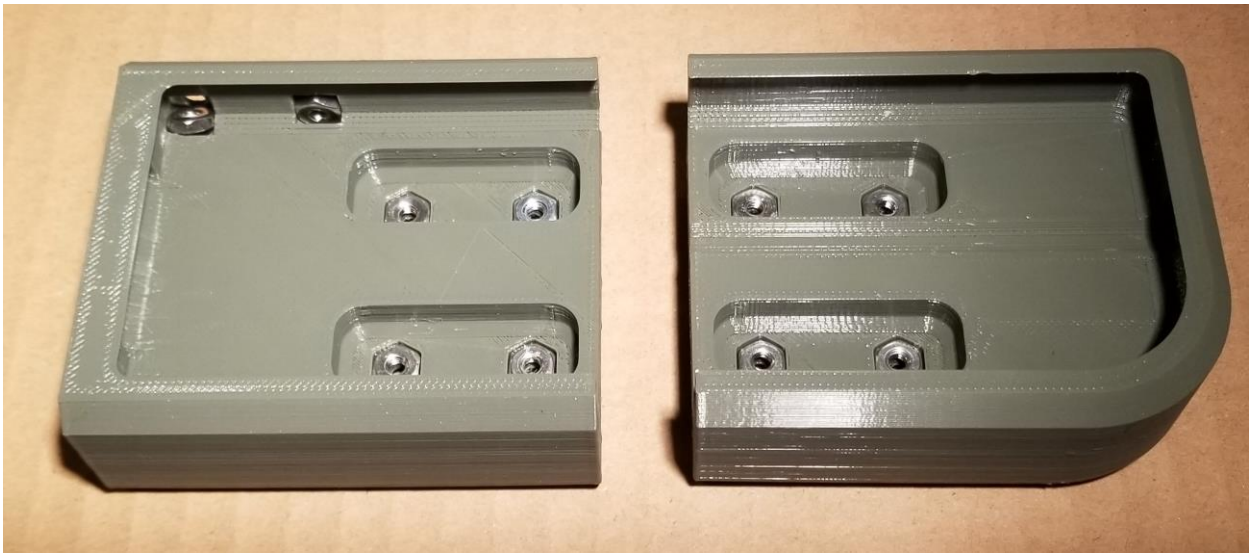
Blue Tack or equivalent (optional)

Instructions:

1. Lay out the 3D printed components as shown.



2. Insert hex nuts in the locations shown.



3. Hot glue the backs of the hex nuts to the casing as shown.
    a. Note: The glue is to ensure the nuts stay in place for assembly/disassembly.

4. Attach the hinge as shown with 3/8" machine screws.

5. Remove the keyboard fob and set the fob aside.

6. Slide the keyboard into the blade piece, then slide the tip piece over the keyboard.
    a. Note: In case of loose fit, you may want to use blue tack or equivalent on the tip end of the keyboard.

7. Flip the assembly keyboard face down.
8. Place the metal straps in the grooves, then screw them into place with 3/8" machine screws.

9. Set the assembly aside.

Front Plate Assembly:

Parts Needed:

3D printed components:

Front plate

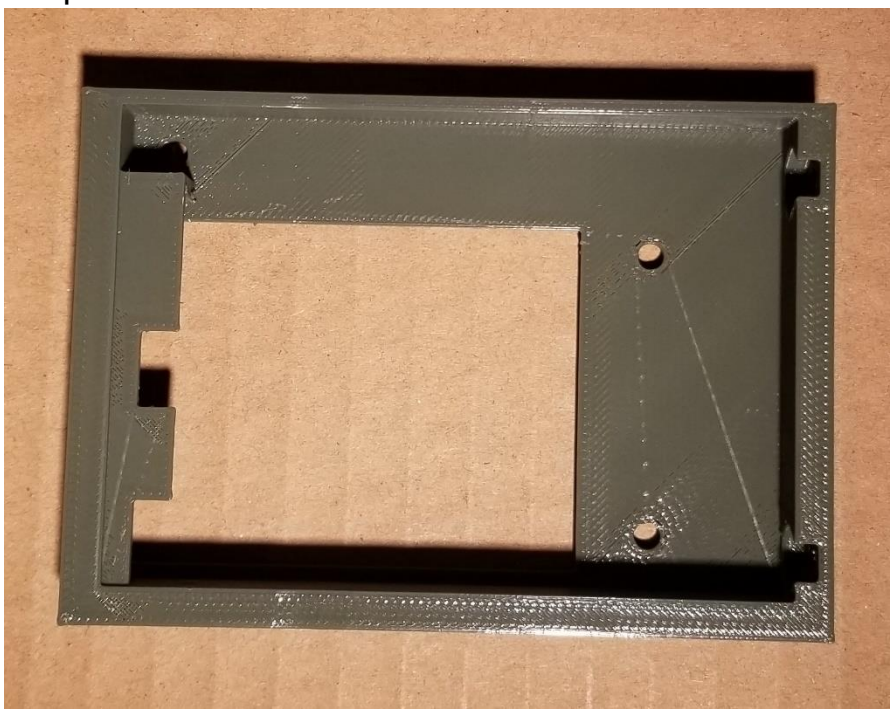
4 x #6-32 hex nuts

2 x #6-32 x 5/8" machine screws

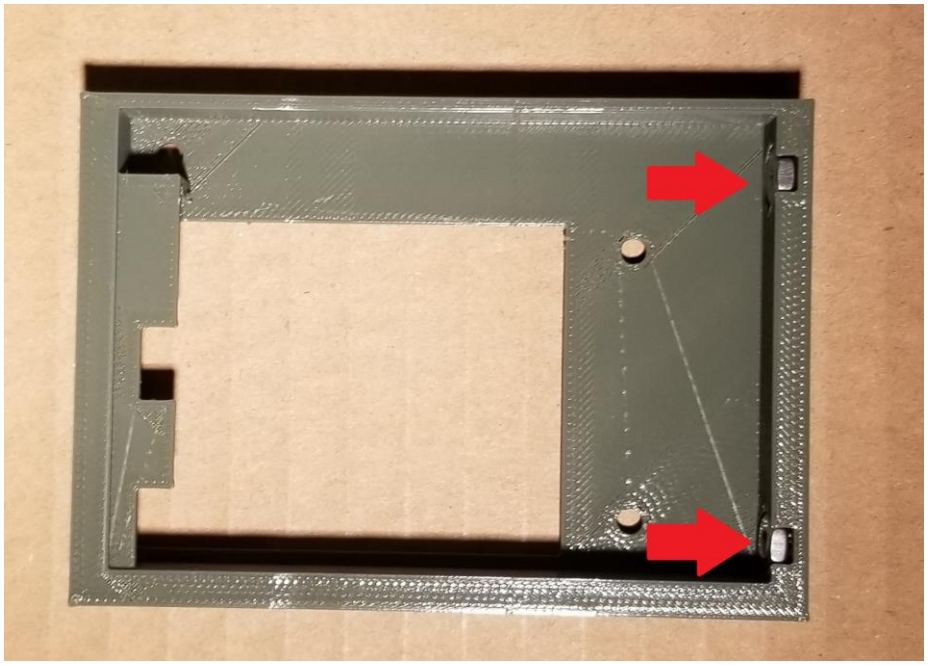
Zero Stack

Instructions:

1. Lay the front plate as shown.



2. Insert hex nuts in the two locations shown.

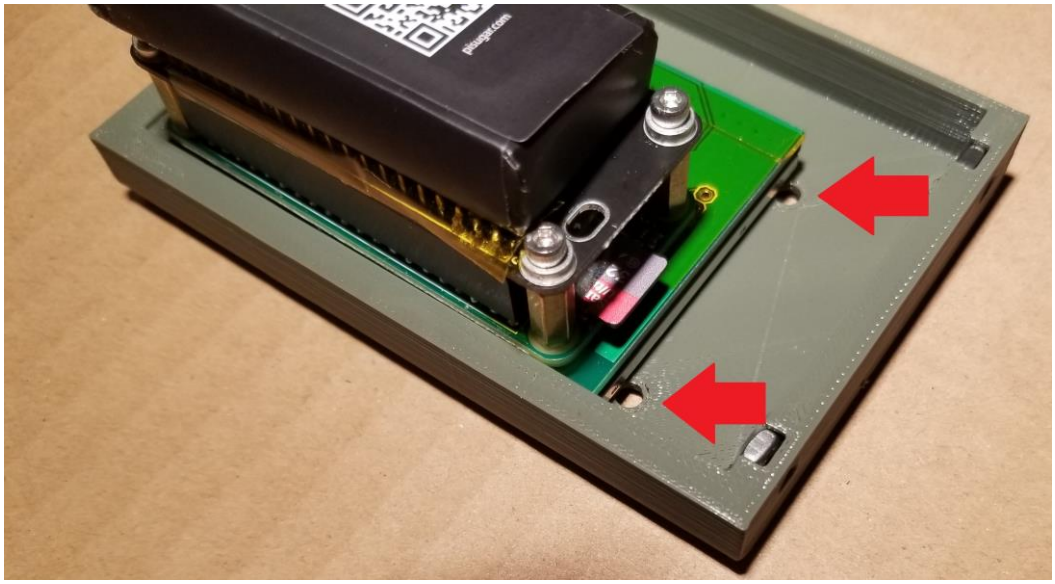


3. Hot glue the back of the hex nuts

4. Take the cling off the screen of the Zero Stack.

5. Place the Zero Stack as shown (GPIO pins should be facing the wall).

6. Carefully slide the stack into position, making sure these two screw holes are kept clear.



7. Secure the stack into place with 5/8" machine screws and hex nuts, inserting the screws from the display side of the casing.

8. Set the assembly aside.

CPU Box and Hilt Assembly

Parts Needed:

3D printed components:

CPU Box

Hilt

5 x #6-32 hex nuts

2 x #6-32 x 5/8" machine screws

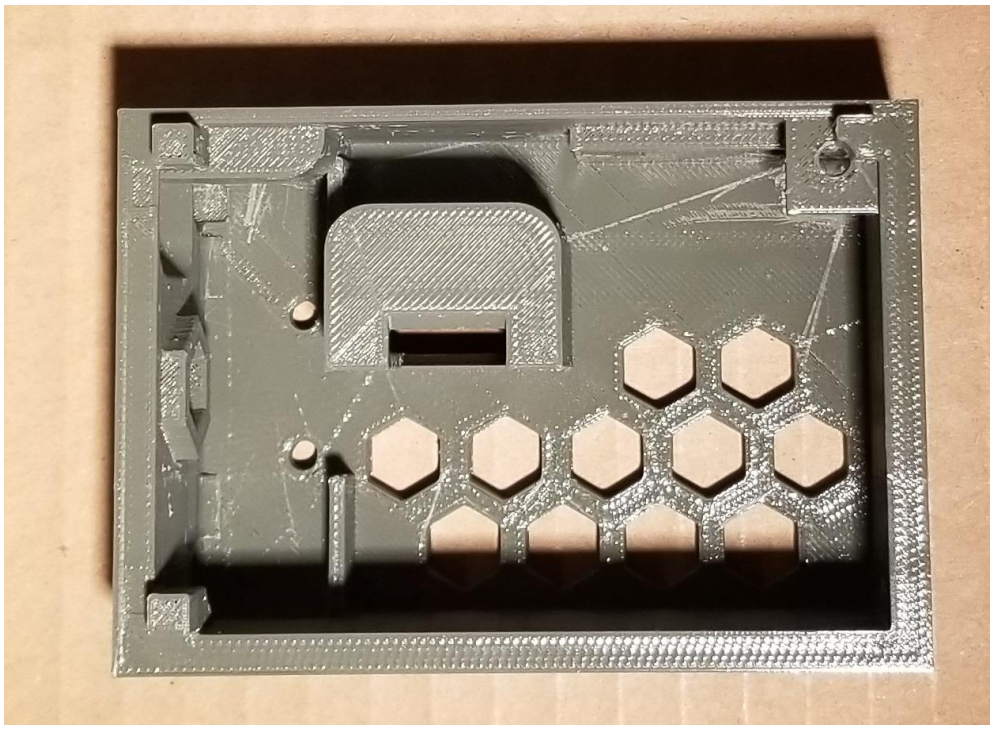
2 x #6-32 x 3/8" machine screws
1 x #10-32 hex nut

Blue Tack or equivalent (optional)

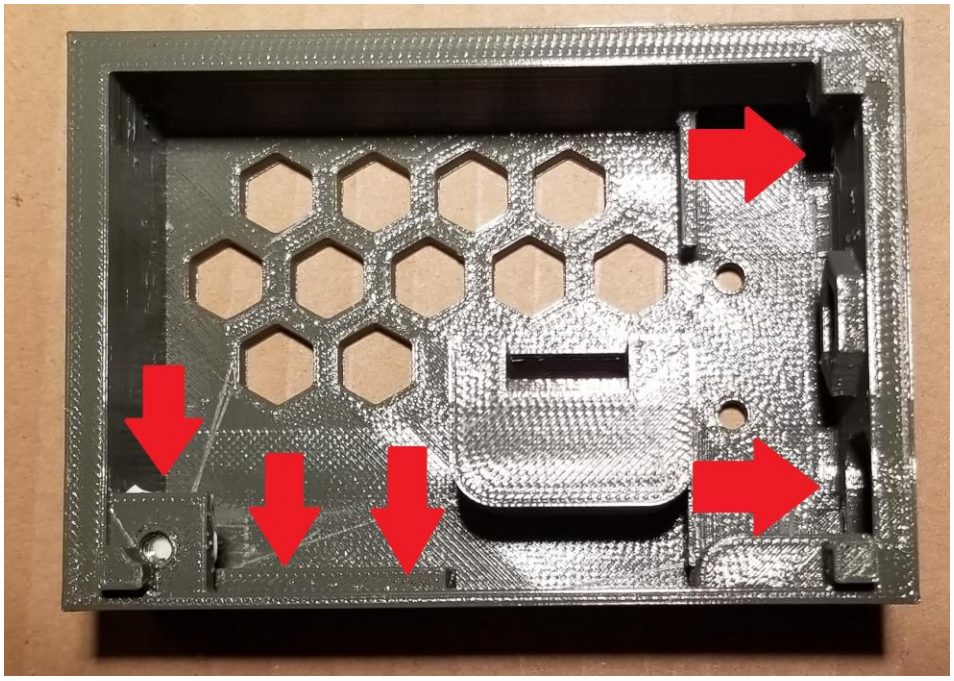
Blade Assembly

Instructions:

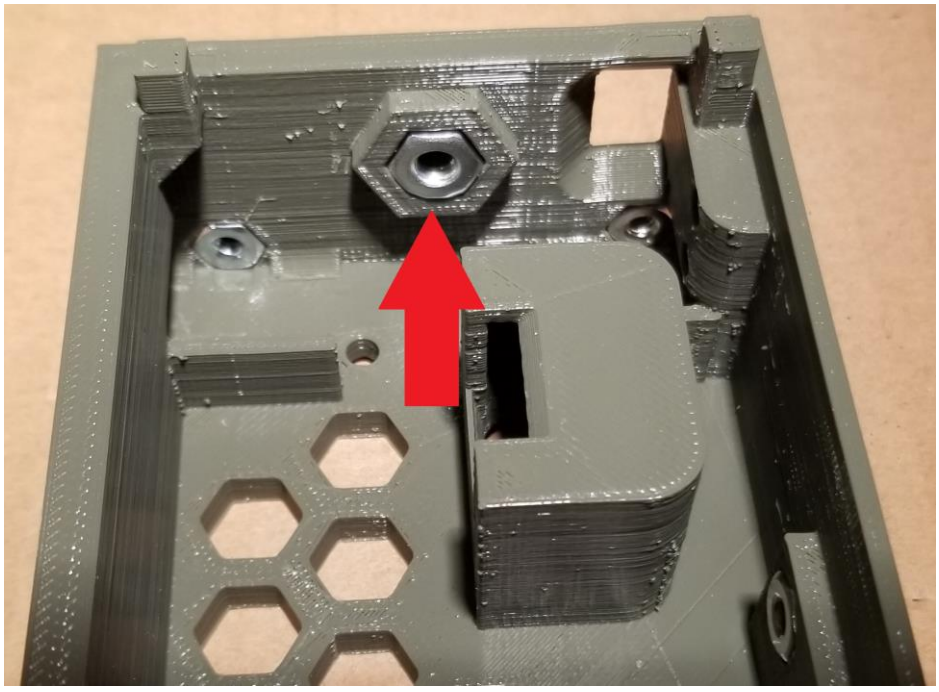
1. Place CPU box as shown.



2. Insert #6-32 hex nuts into the holes indicated.
    a. Note: You may need to pull the hex nuts at the bottom of the box (on the right in the photo) into position with a screw.

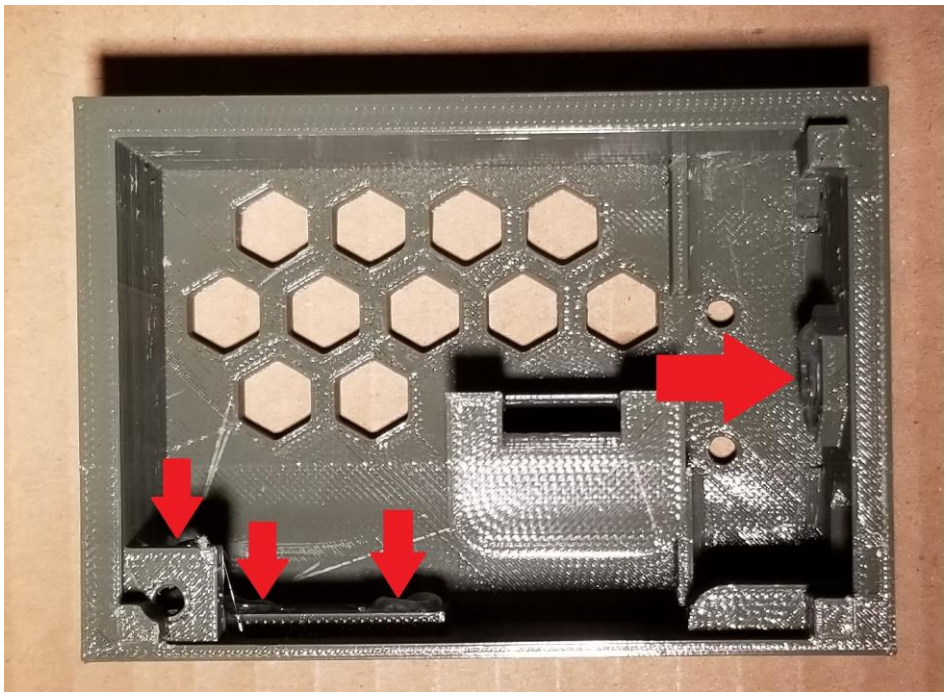


3. Insert the #10-32 hex nut into the hole indicated.



4. Hot glue the backs of these nuts.
    a. Do NOT attempt to hot glue the two #6-32 nuts on the right. This will interfere with later assembly.

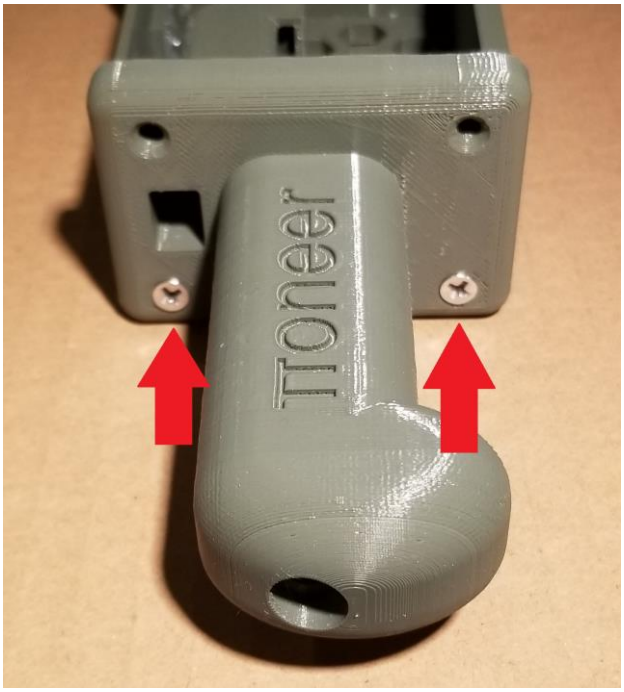
b. The nut in the bottom left of the photo may require tack or tape to hold in place. It may not be possible to get your hot glue gun to the back of that nut.



5. Attach the open end of the hinge to the CPU box with 3/8" screws.

6. Line up the hilt with the CPU box. The side labelled πoneer should be facing up wards away from you. The rectangular hole must align with the matching one in the CPU box.

7. Screw the hilt onto the CPU box through just the bottom two holes using 5/8" screws.
    a. Note: You may have to hold the hex nuts in by hand from the opposite side.



8. Move onto the next assembly.

Final Electronics Assembly

Parts Needed:

Previous Assembly

Front Plate Assembly

Modified micro-USB to USB splitter

Micro-USB extender

4 x #6-32 x 5/8" machine screws

2 x #6-32 x 7/8" machine screws

1 x #6-32 x 1" machine screw

6 x #6-32 hex nuts

1 x #10-43 x 4" machine screw

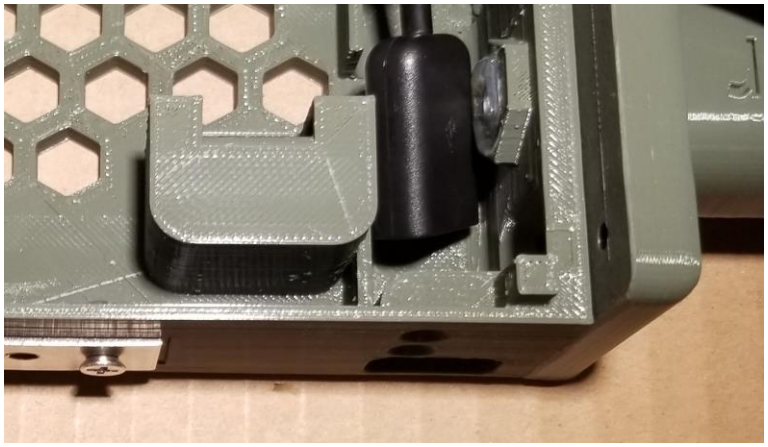
Rii wireless fob.

Instructions:

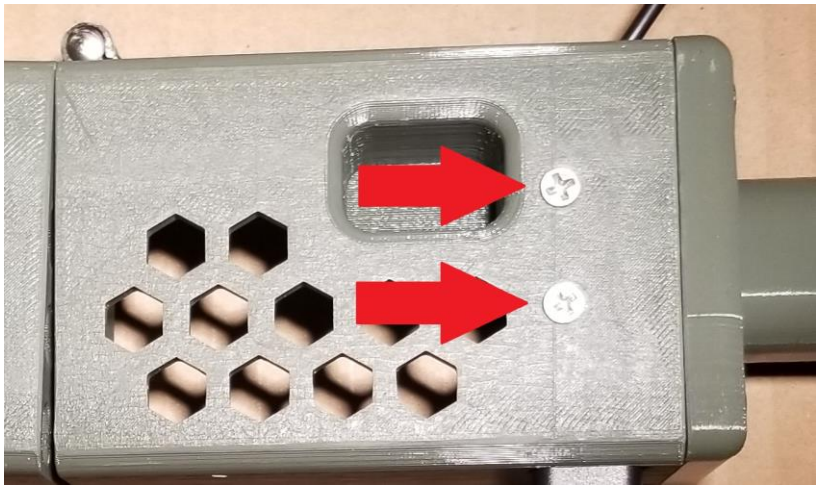
1. Insert USB ports from the splitter, USB logo face up in the holes.
    a. The board of the splitter should have the flat side facing towards the hinge side.

    b. The USB from the bottom side should go to the hinge side, with the other to the opposite side.

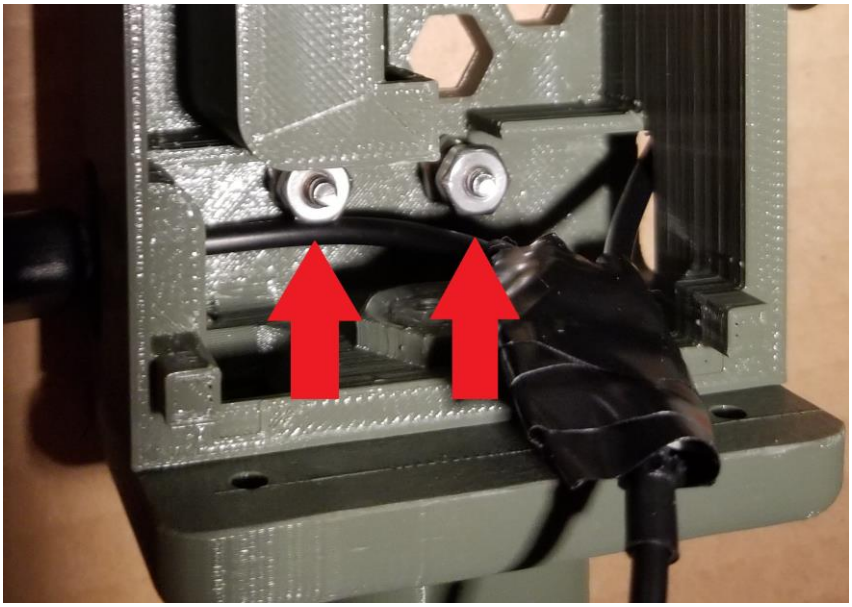
c. Tip: To get them in easily, angle the edge under the hilt nut mount and slide the first one all the way out of the case before inserting the second the same way.



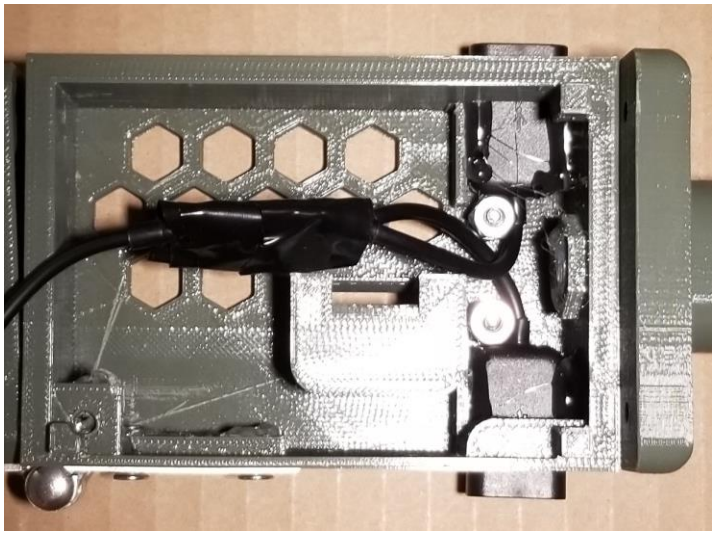
2. Install 5/8" screws in from the bottom in the indicated holes.



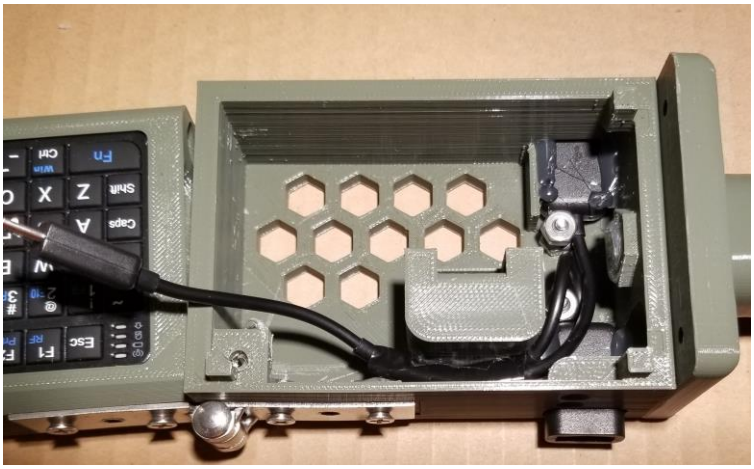
a. Use two hex nuts on each screw. One to fix the screw to the casing, another one slightly down from the end of the screw.



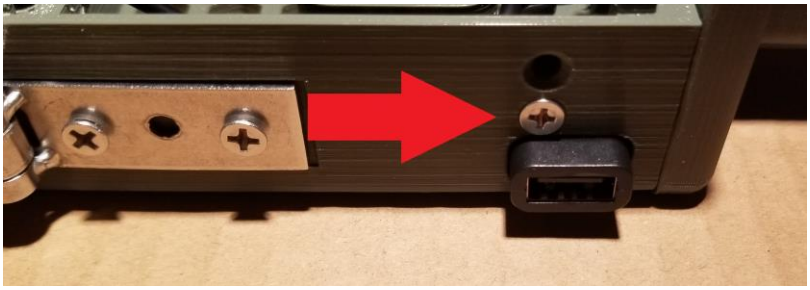
3. Push the USB ports back in against the screws. Hot glue into place.

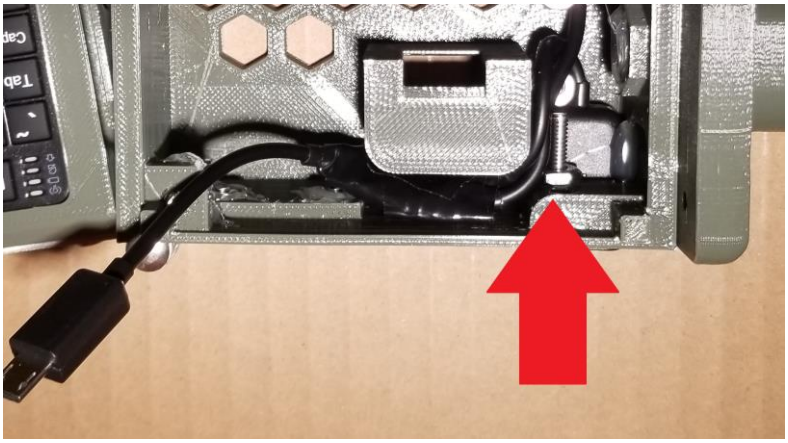


4. Place splitter board as shown.



5. Screw a 7/8" screw into this hole with a nut clamping it on the other side.

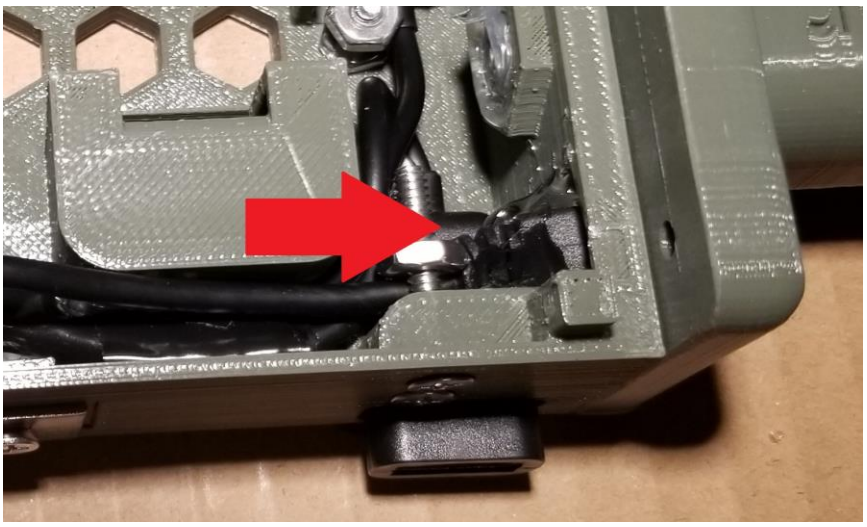




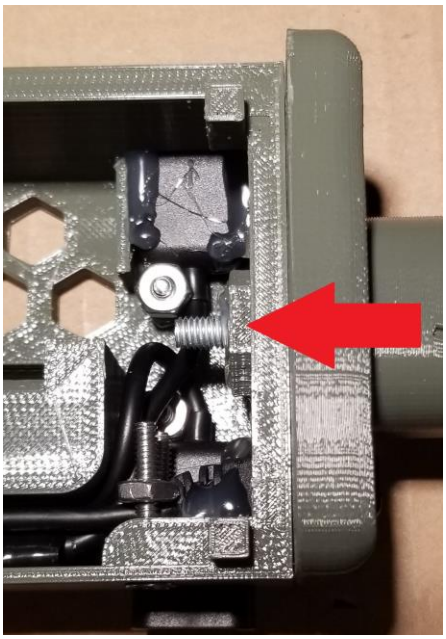
6. Insert micro-USB extension cable through this hole, from the outside in. Make sure the cable is oriented as shown for easy access. Push the plug until flush, and lay the wire snugly over the splitter board.

7. Insert 7/8" screw through this hole and clamp the cable into place with a hex nut. Make sure all cables lay neatly through the gap between plastic parts.

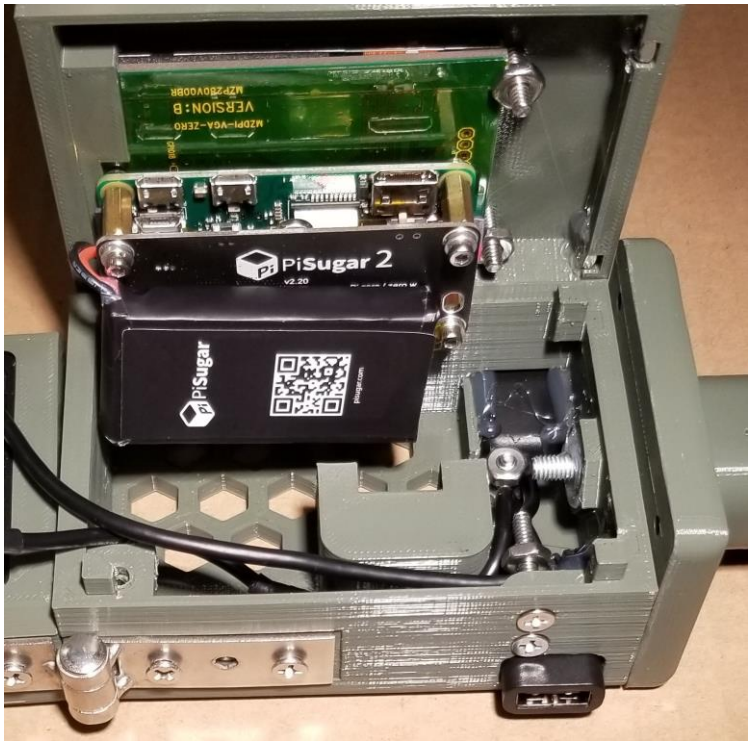
8. Hot glue plug to casing to resist pulling out.



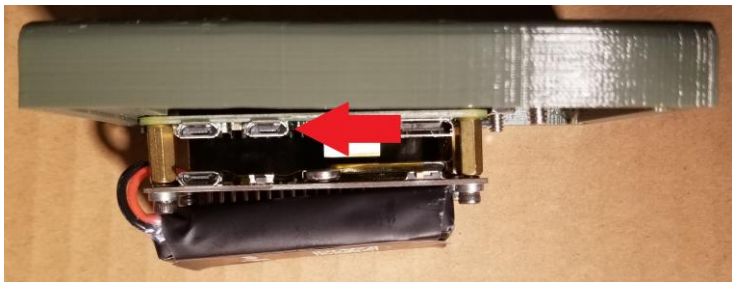
9. Screw in #10-32 x 4" screw from the end of the hilt.



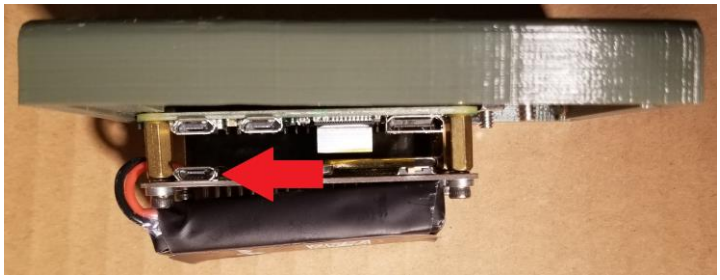
10. Take the front plate assembly and orient it as shown



11. Plug in the splitter micro-USB end into the port as shown.



12. Plug in the micro-USB extender into the port as shown.

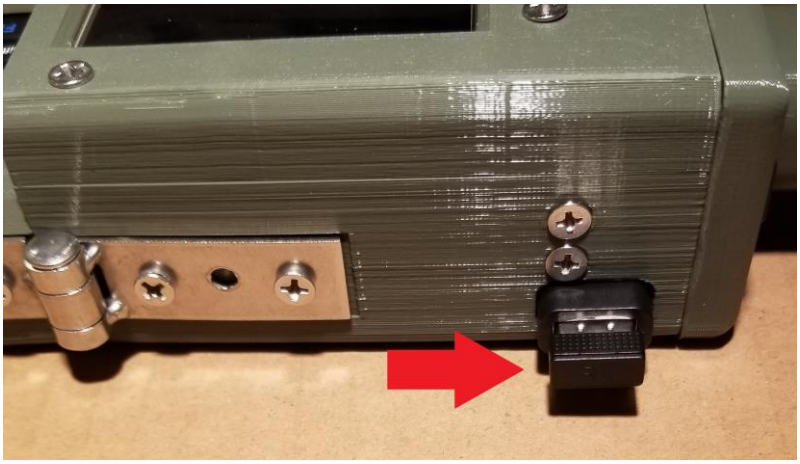


13. Gently settle stack and cover into the case in this orientation.

14. Screw in two 5/8" screws as shown.

15. Screw in 1" screw as shown.

16. Insert Rii fob as shown.



17. Test that electronics work in this configuration.

Finishing Touches

Parts Needed:

Previous Assembly

Superglue

Clear shipping tape

8 x 10mm dia x 2mm Neodymium magnets

Tools Needed:

Something to hold or tie the assembly in the open position for 24 hours.

1. Open the assembly and fix it in the open position.

2. Stack all the magnets so that you know which direction they are facing.
3. Glue the magnets in the holes as shown, verifying that the magnets in each section are all facing in the same direction, and will cause the two halves of the assembly to clamp together when shut.

4. Use clear shipping tape to reinforce holding the magnets in their slots.

5. Allow the superglue to dry for 24 hours.

Potential Add-ons/Upgrades

SRC #002: Squid: A multi-format cable adaptor used in tandem with a cyberdeck to whatever connections are available.

Scabbard

Weather stripping as padding to protect your hand when opening

Replace the magnets with a solid latch

Replace the hex vents with a heat sink

Waterproof the case

Add a metal edge