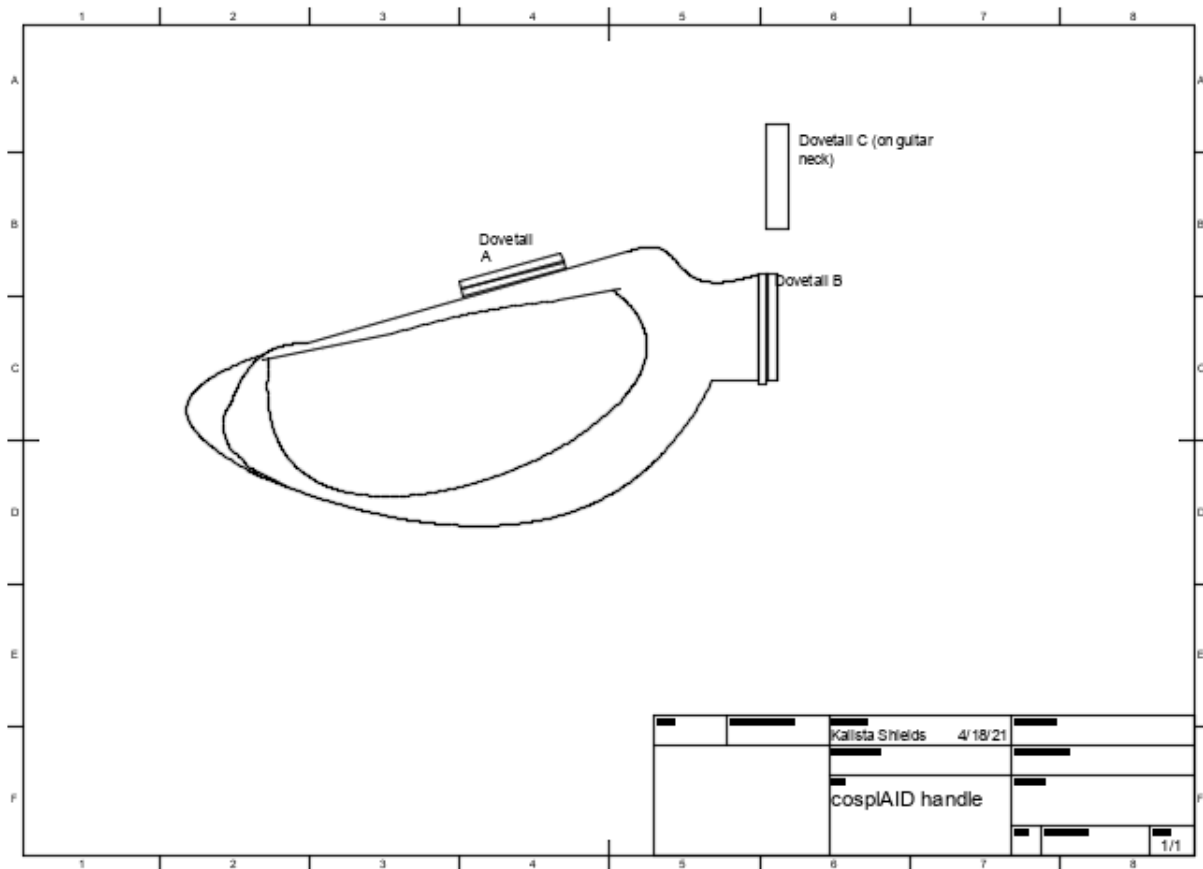


cosplAID M1 vMioda

Documentation, Instructions, and Narrative



Parts on Handle



(Guitar Handle REF1)

How to put cosplAID into “Guitar Mode”

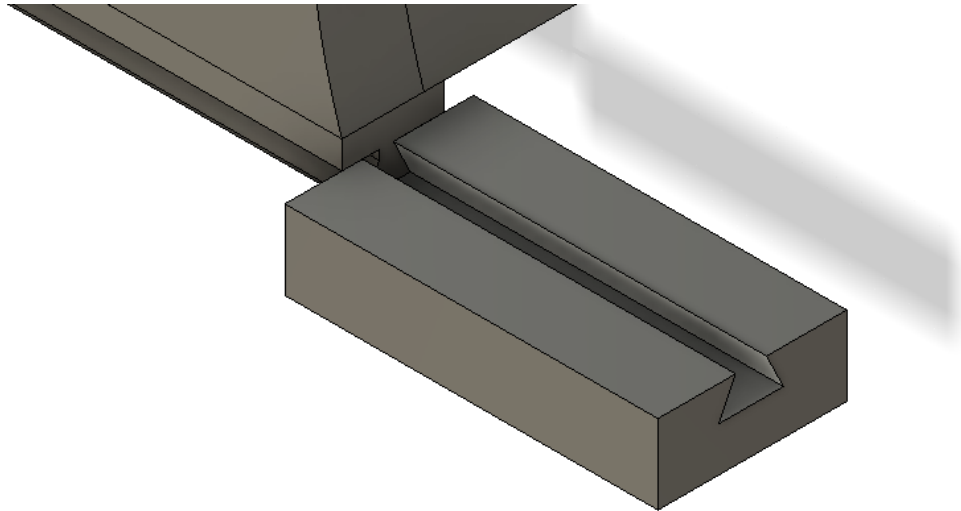
Align Dovetail B with Dovetail C as seen as in REF2.

Slide Dovetail B into Dovetail C until the the foremost end of B touches the foremost end of C.

How to put cosplAID into “Cane Mode”

Align Dovetail A with Dovetail C as seen as in REF2.

Slide Dovetail A into Dovetail C until the the foremost end of B touches the foremost end of C.



(REF2 attaching dovetails)

Parts on Hand

How to turn on lights

Attach GND wire to GND pin.

Attach VCC wire to VCC pin.

Attach OUT to pin 6.

Plug USB into Teensy V4 and connect to a USB power source such as a computer, portable charger, or wall charger.

How to Change Colors

Open cosplaid.ino in teensyduino IDE

Lines 44, 49, 54, and 78 allow for color change.

Code looks like:

```
strip.setPixelColor(i, 0,0,255);
```

The numbers after i are for the red, green, and blue values of the pixel. To make red put

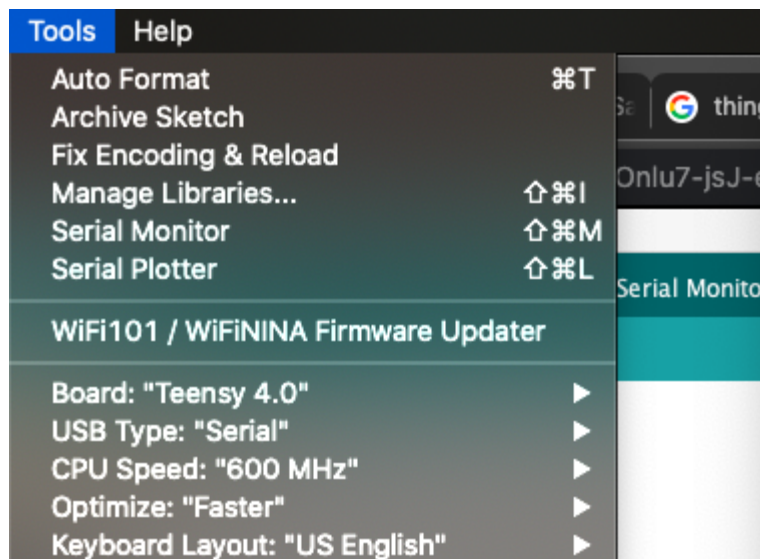
```
strip.setPixelColor(i, 255,0,0);
```

To make green put

```
strip.setPixelColor(i, 0,255,0);
```

Plug in the Teensy to your computer.

Go to tools and ensure that the settings look like this



(REF3 Settings for Teensy 4.0)

Ensure the port leads to the teensy. Depending on the machine the port will read different port names for the Teensy.

Once the colors are changed to your liking, upload them using the arrow button (REF4). You should see a message at the bottom of the console that says done uploading. The lights will change accordingly.



(REF4 Teensyduino upload button)

Narrative Experience

Over the course of a semester, Chris Whitmire and I worked with CNC machinery to better cosplAID. We rapidly prototyped several iterations for the attachment mechanism. Over the course of a semester, we designed 16 different attachment devices that were all tested by hanging weights off of the attachment. Overall, this was a positive experience where I learned to iterate my designs better.

We also got IRB approval to run a survey on disabled cosplayers. With the results of the survey, we were able to determine that 90% of cosplayers surveyed felt excluded at conventions due to their disabilities. 73% felt that conventions were not disability friendly and lacked accessibility. 42% had been actively discriminated against at a convention due to their disabilities.