Projects

Thoughts and ideas for projects, as well as planning for projects in progress.

- [Lenticular Printing](#)
- [USB HID Dongle](#)
- [Project DIVA Arcade Controller](#)

Lenticular Printing

I came across [this youtube video](#) and I thought it would be pretty neat to do something like this. Naturally, there's probably a more elegant way of doing things using the command line.

Notes

Ideally a printer with enough LPI. 600 lpi print / 50 lpi sheet = 12 lines per lenticule. Each sheet is 5 x 7 in

Use imagemagick to interlace https://imagemagick.org/script/command-line-options.php#interlace

```
magick input.png -resize <full_width>x<height> output.png
magick -background none output.png -crop <strip_width>x<height> output_%d.png # cut image into full_width
/ strip_width amount of images
magick -background none output_* +append output_interlaced.png # append images horizontally

# For 6 frames per lenticule, strip size = full_width/lens lpi/6
magick input.png -resize 600x300 output.png
magick -background none output.png -crop 2x300 output_%d.png # outputs 300 images!
# Then, keep only every `i`th image, where i is the frame sequence number
# TODO
```

To-Do

- Setup a print server and print something using `lp`

USB HID Dongle

> This is just my stream of consciousness for a project in progress

Hardware

- Adafruit Feather nRF52840

Software

- Circuitpython
  - [HID Library](#)
  - [Bluetooth UART](#)
- Android Compose
  - Figma of the UI
  - [Android bluetooth socket libraries](#)

Project DIVA Arcade Controller

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Touch bar:

- Capacitive touch bar using ada1602 sensors
- Pi zero hid (max 27 buttons)
- 60mm buttons