E.D.I.T.H

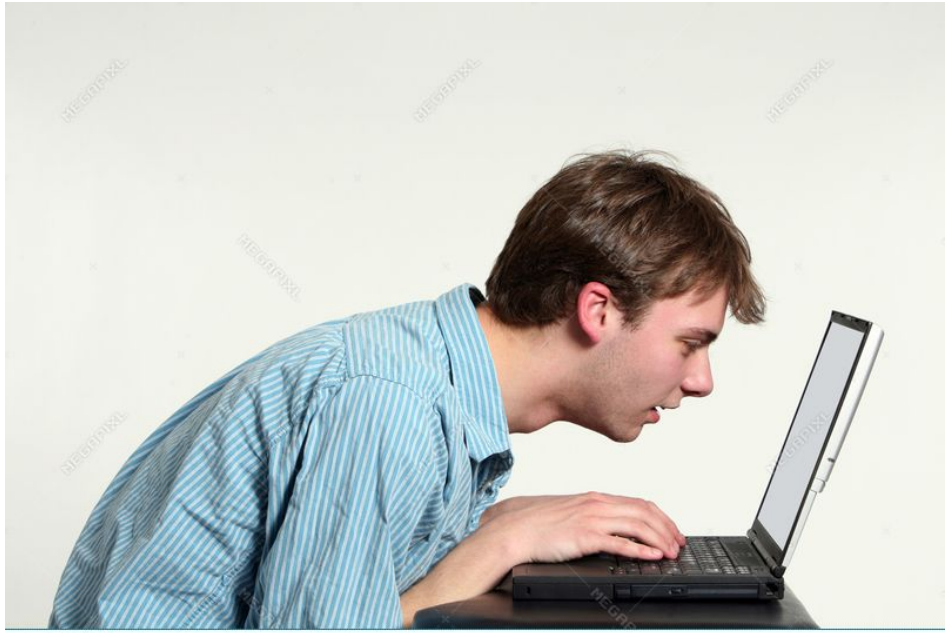
Timi Omotunde and Roberto Ramirez

Revolutionary Ideas

1964

1988

Problem



Revolutionary Idea

2019

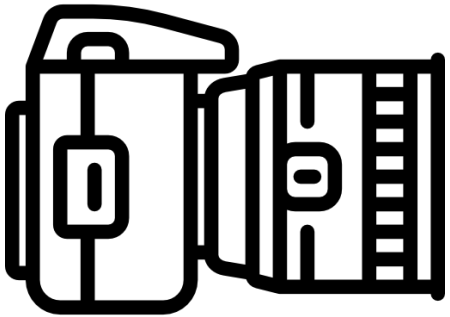
BUT WAIT
THERE'S MORE

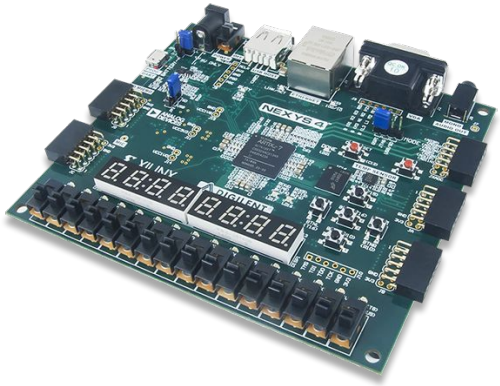
Revolutionary Idea

2019

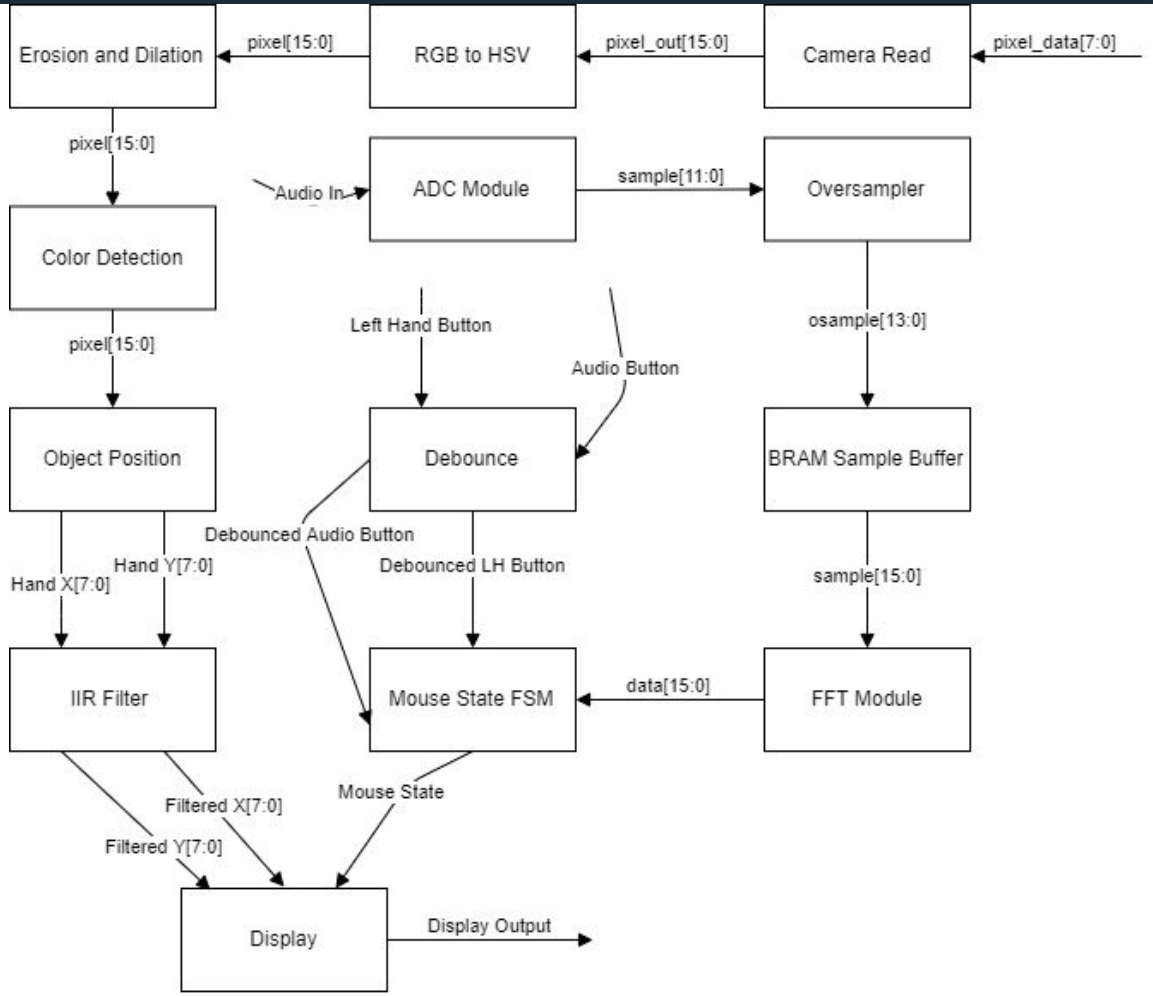
Today

OVERVIEW





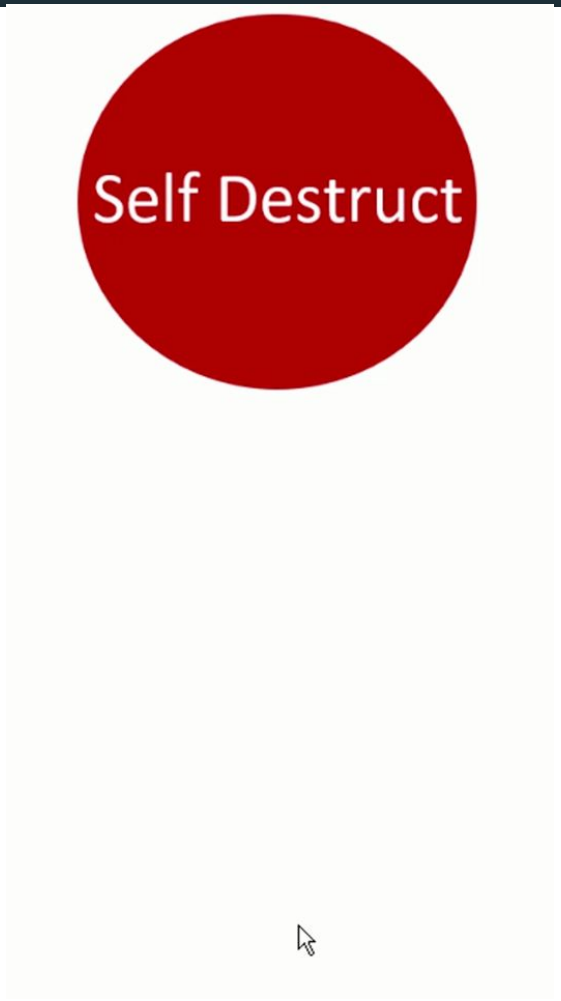
Block Diagram



Examples

Examples

Examples

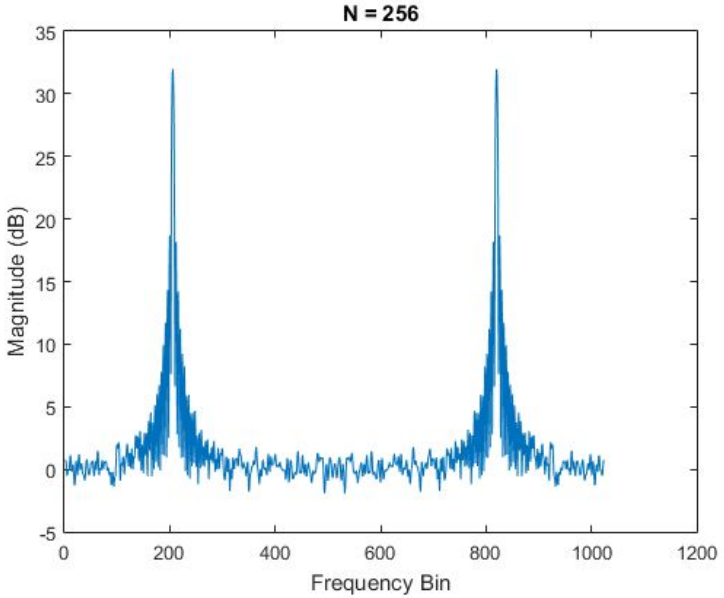


Examples

Audio

- Two tones
  - high tone controls left double click
  - Low controls right click

- FFT - frequency bands



Teensy

```
Mouse.click();

Mouse.set_buttons(1, 0, 0);  // hold left button
Mouse.move(-30, 10);         // move the mouse while holding
delay(500);
Mouse.set_buttons(0, 0, 0);  // release button after move
```

Milestones

Week 1:

- Gather/Order all required components
- Finish Block Diagram for high level overview
- Finish project proposal and prepare for the project presentation

Week 2:

- UART connection between Teensy and FPGA
- Teensy feeding mouse movement to laptop
- FPGA can recognize high and low tones

Week 3:

- Integrate camera to recognize different LED colors
- High and Low tones correlate to FPGA actions

Week 4:

- Translate gloves positions into XY coordinates
- FFT programmable mode
- Fool-proof audio and visual systems

Week 5:

- Integrate audio and visual components

Week 6

- Demo project on Bloons Tower Defense