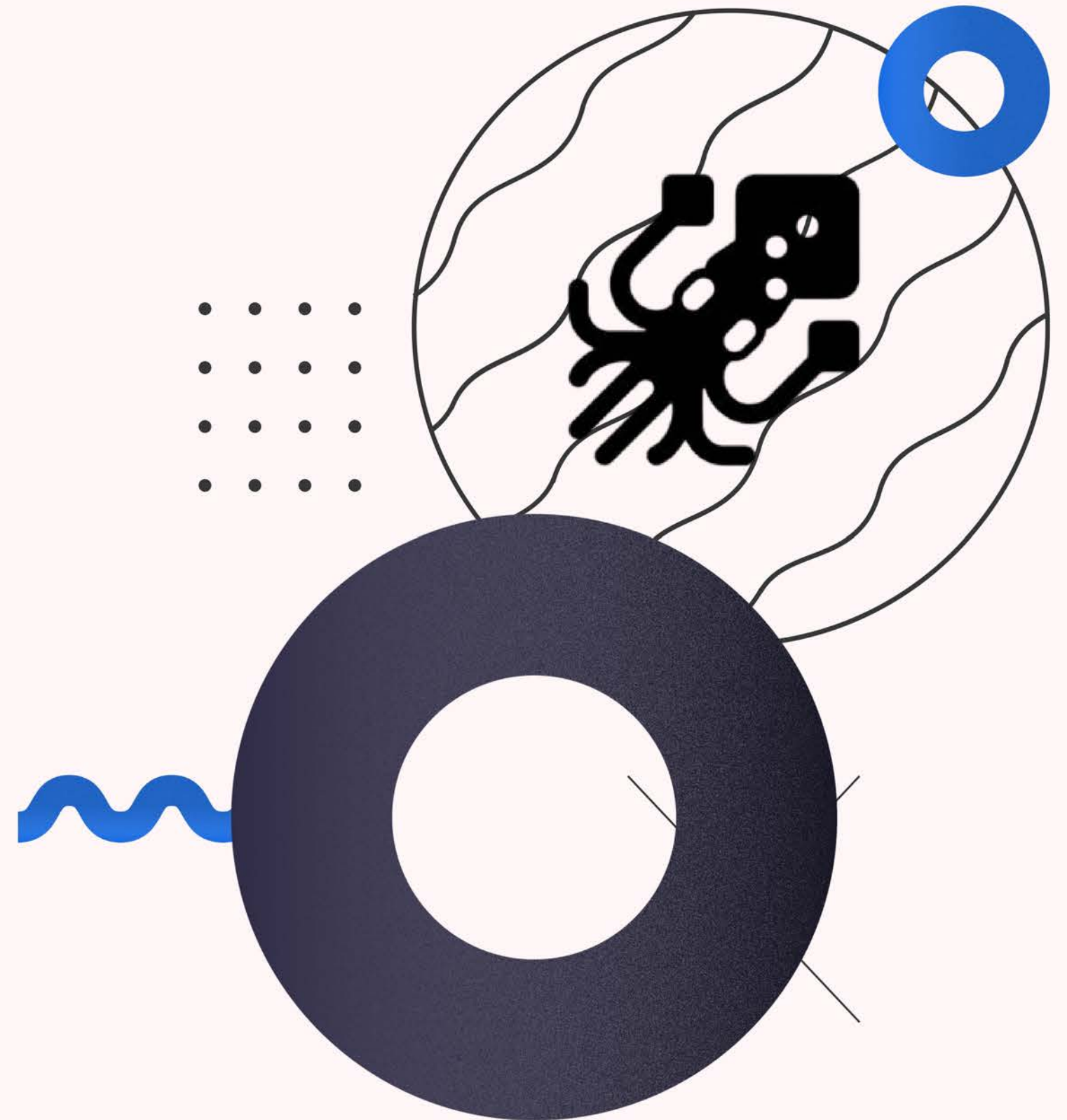
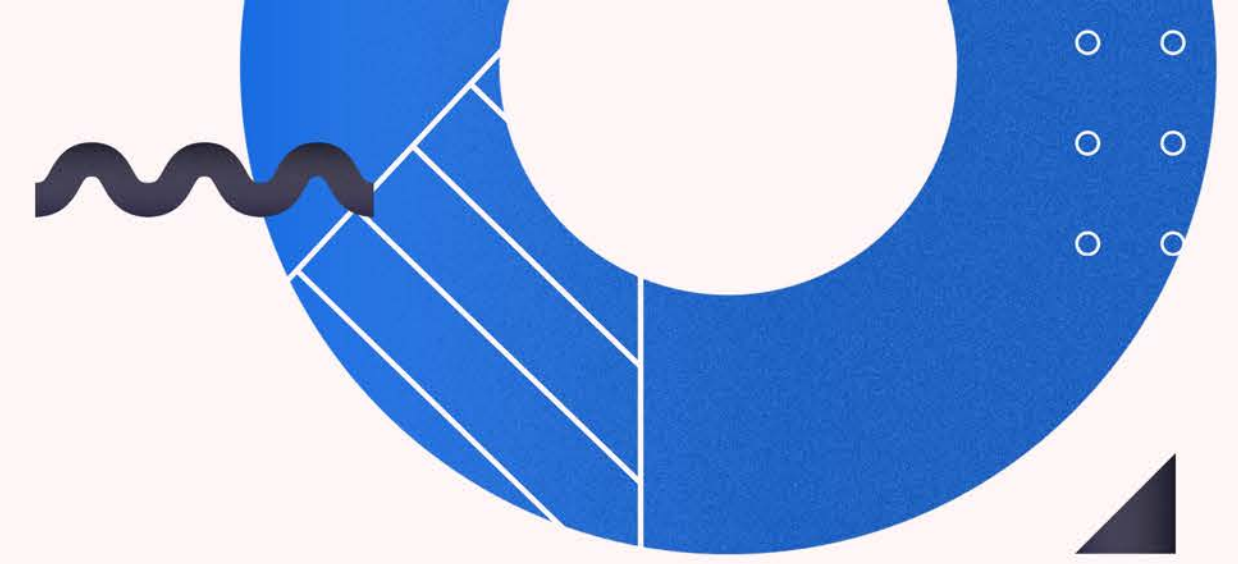


Squidbox

By: Kai Nakamura, Karish Gupta,
Dennis Garvey, Niko Tan, Evan
Carmody.

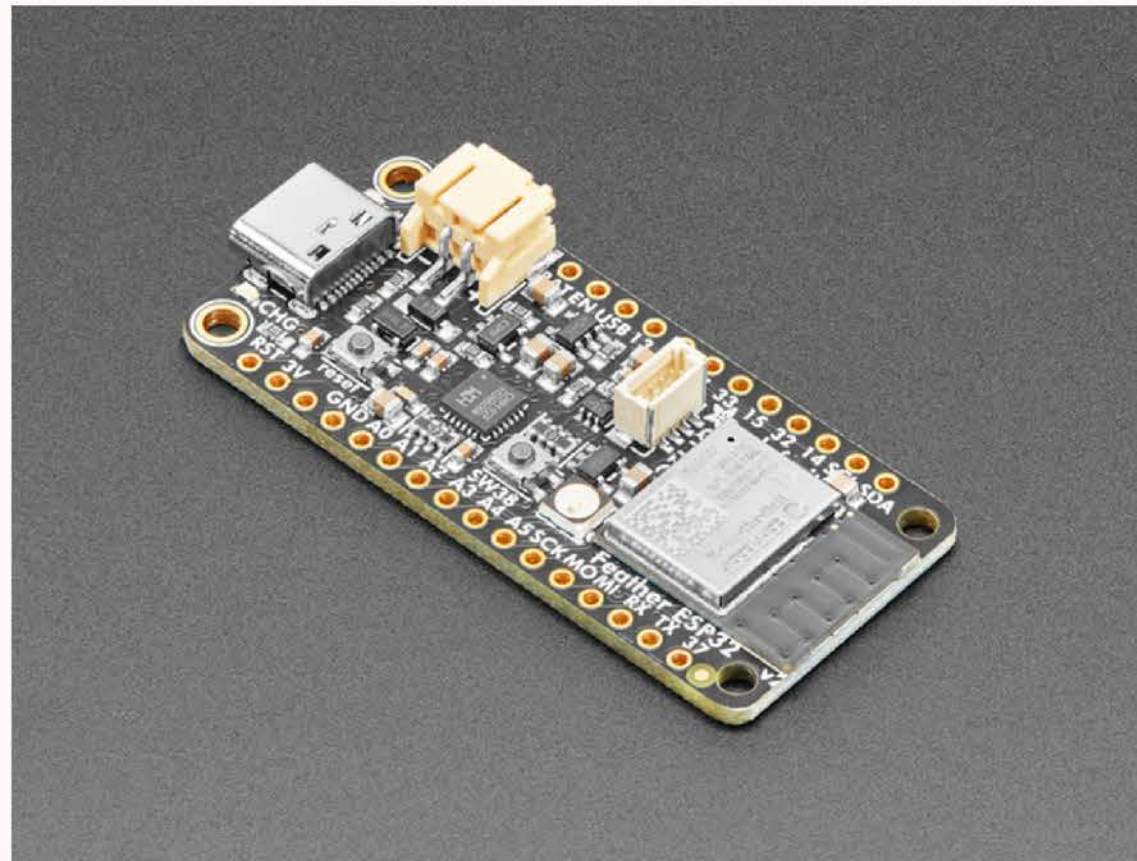
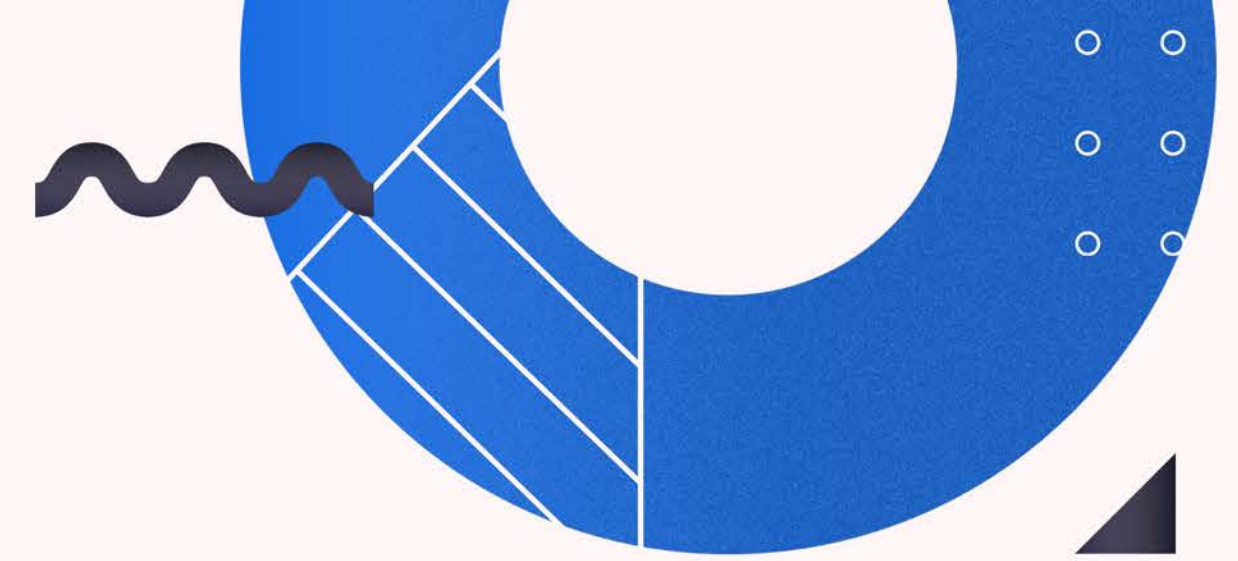


Electronics



- Adafruit Feather ESP32
 - Pros
 - Bluetooth compatible
 - Adafruit version has battery controller on it
 - Cons
 - No usb support
 - Upgrade ESP32-C3 variant of feather board
 - Somewhat Expensive
- 1 Rotary Encoder to change current selection
- Joystick for navigation
- Oled screen
 - Affordable option
- 10 Push Buttons (Fun Looking)
 - 8 for notes
 - 2 for navigation

Electronics



- Adafruit Feather ESP32

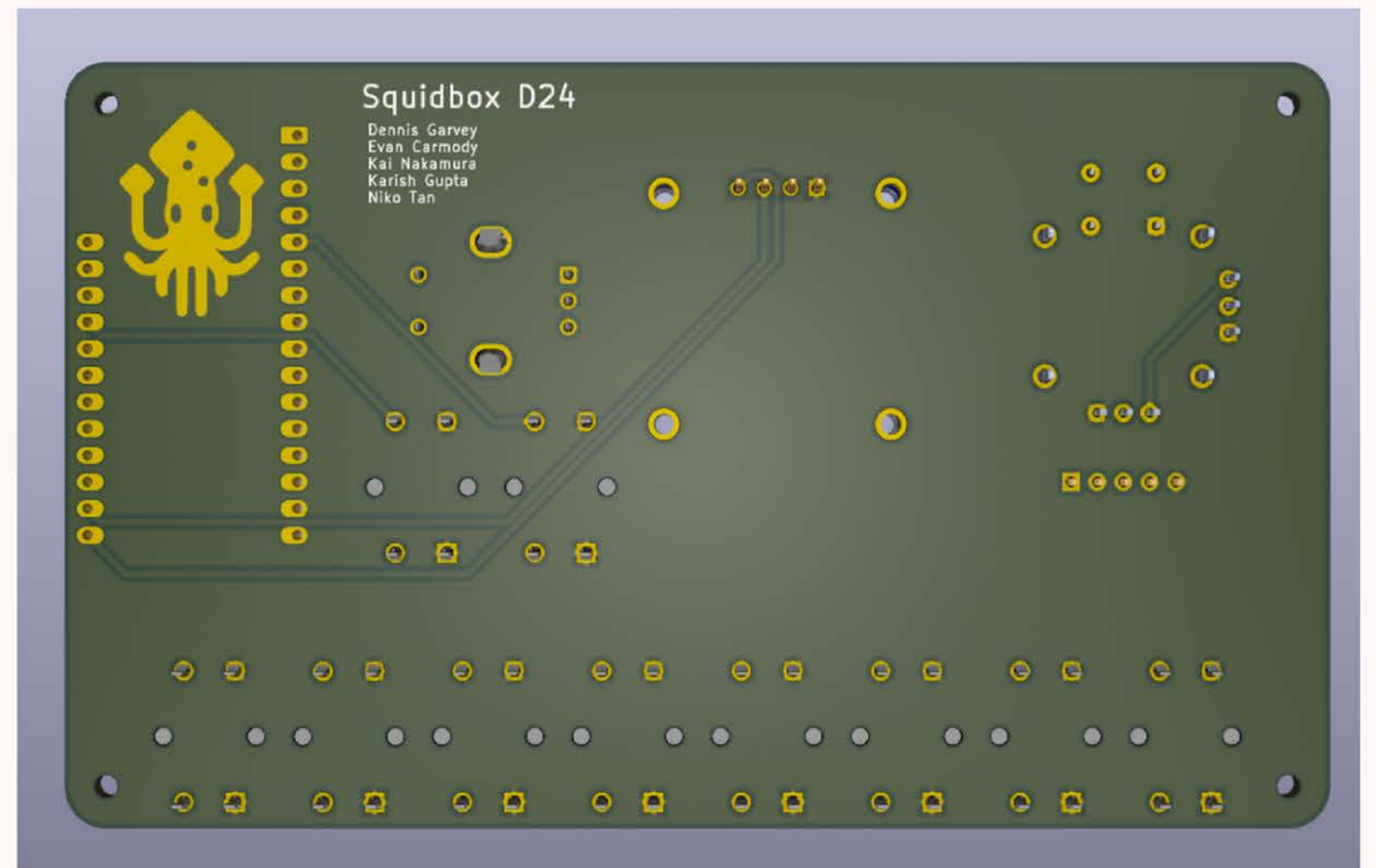
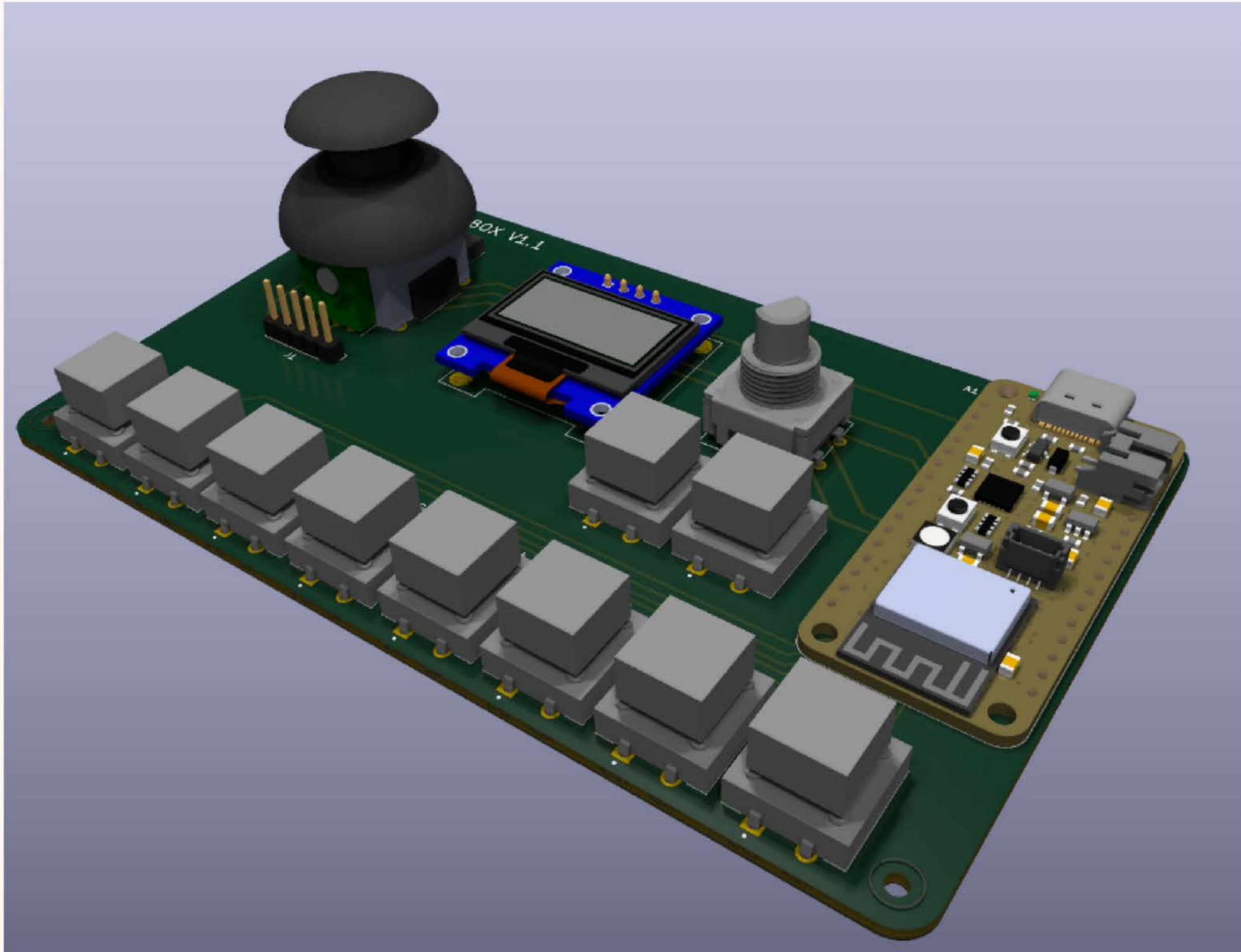


- Oled screen



- Push Buttons

PCB

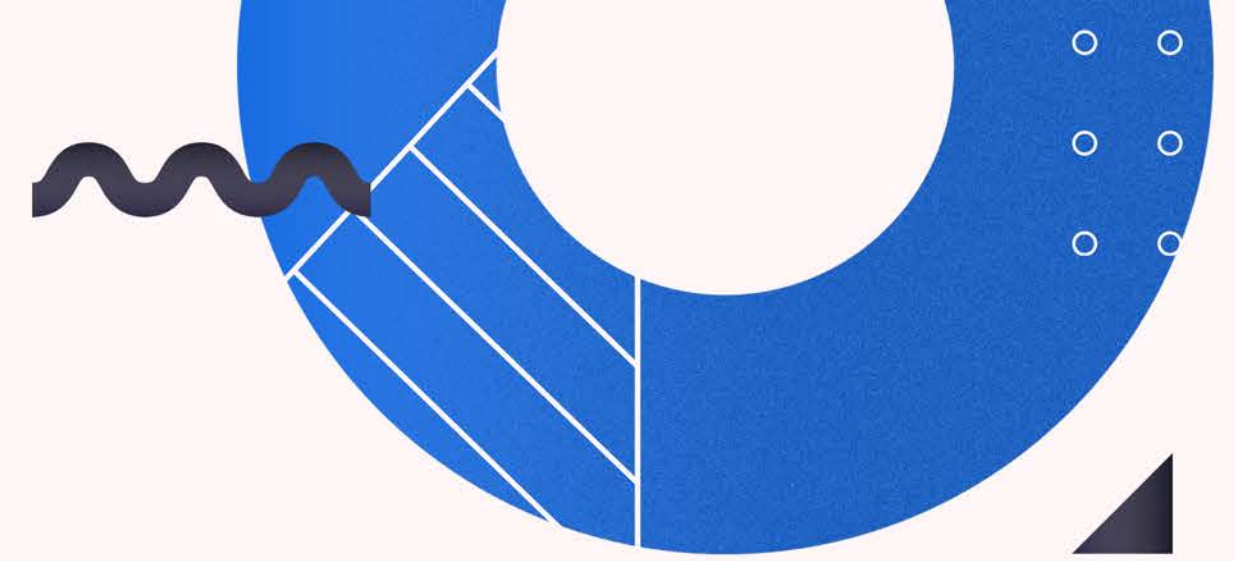


Code

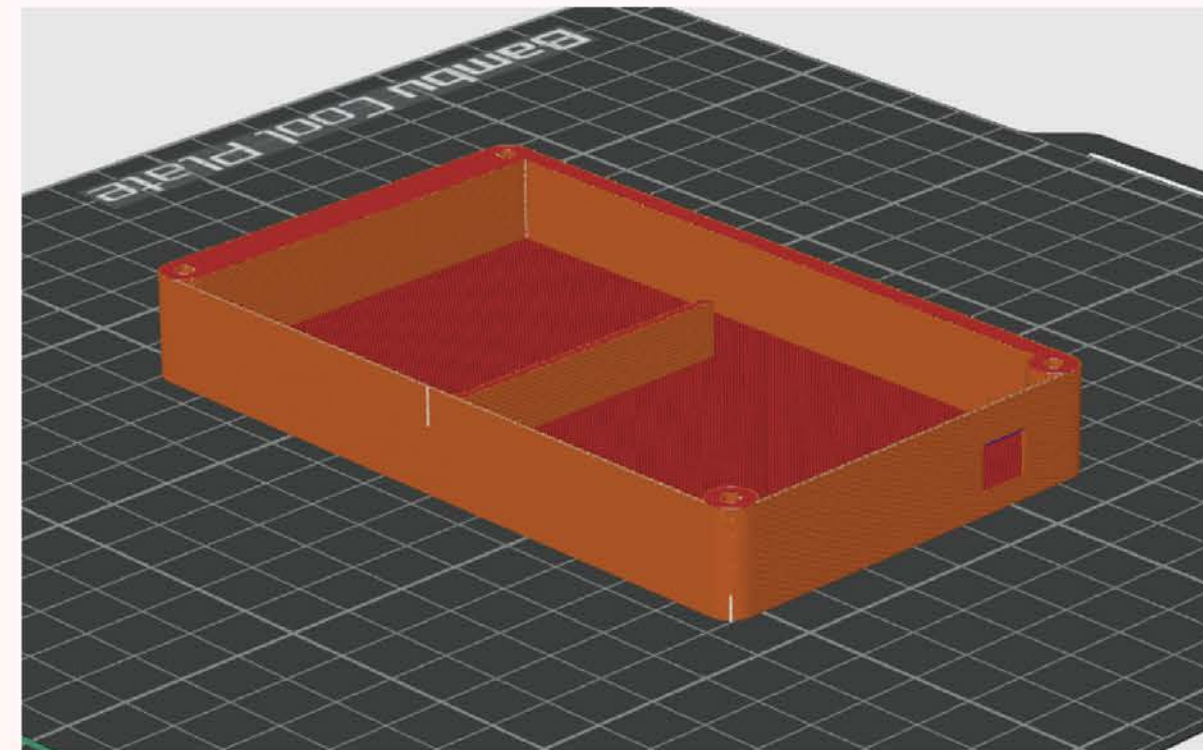
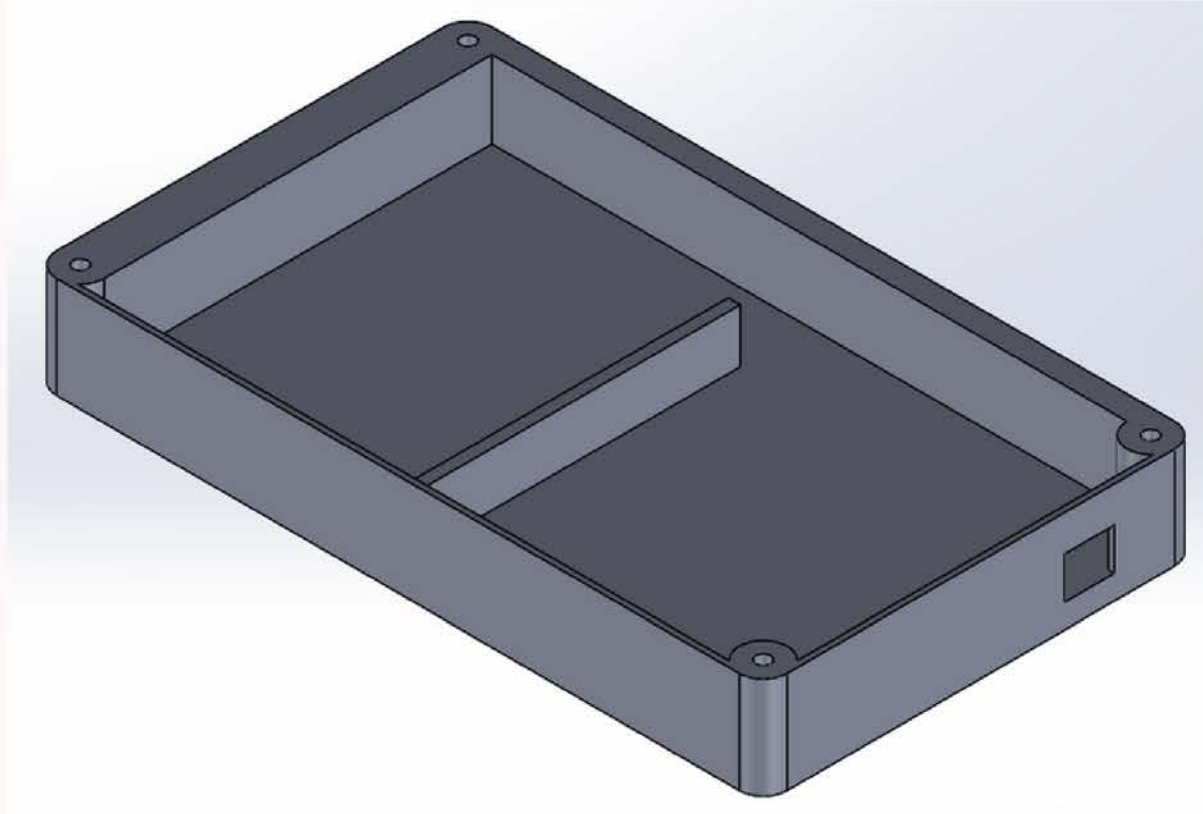
- Organized object oriented design
- Classes for each physical component
 - Button class
 - Knob class
 - Joystick class

- GUI Classes for digital keys, keyboard
- Helper classes and functions for notes, chords, and scales

- Functionality broken down into discrete Scenes
 - Main Scene
 - Chord Scene
 - Note Scene
 - Drum Scene



CAD Design



Iterations



Previous Iterations

