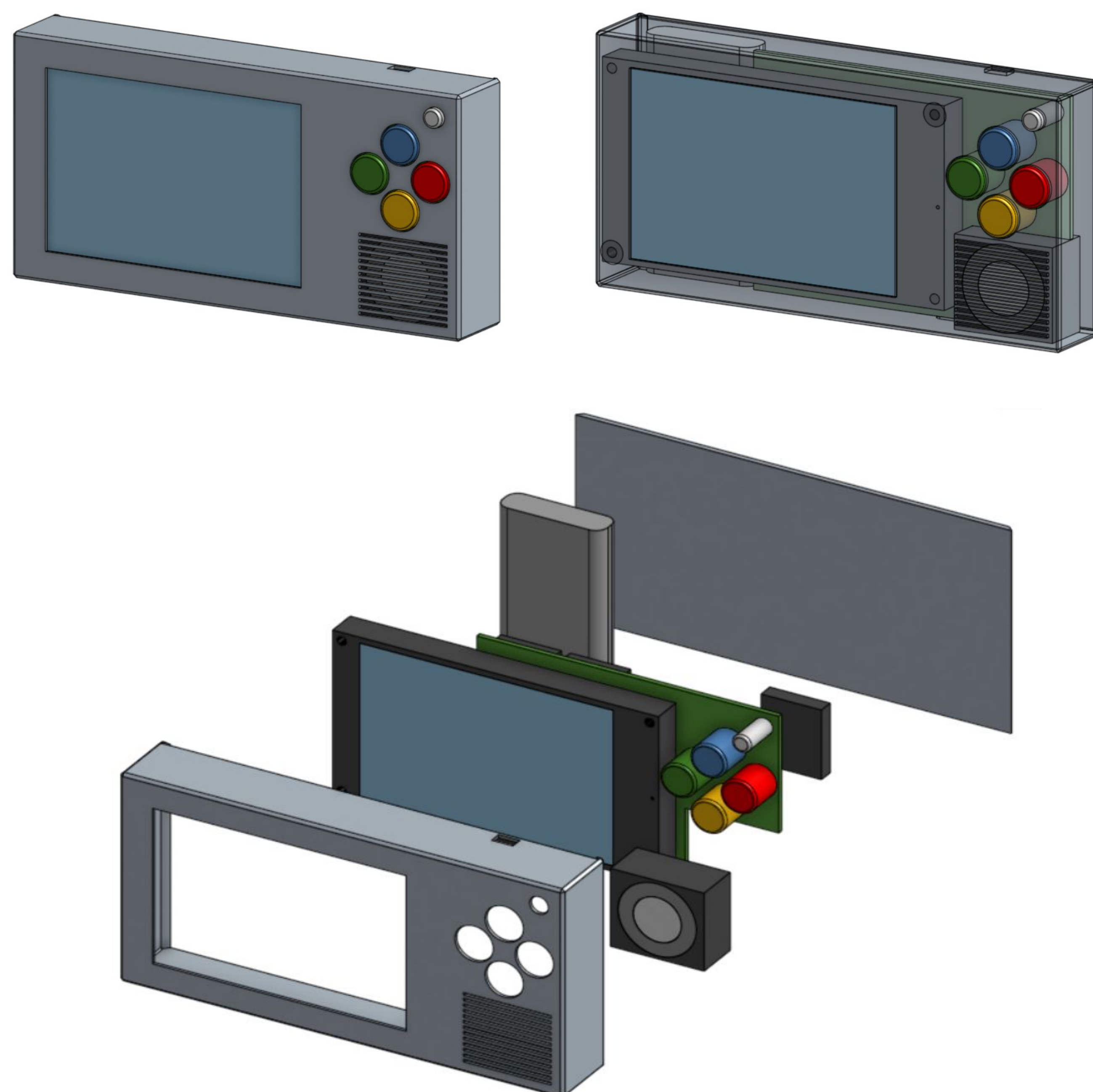


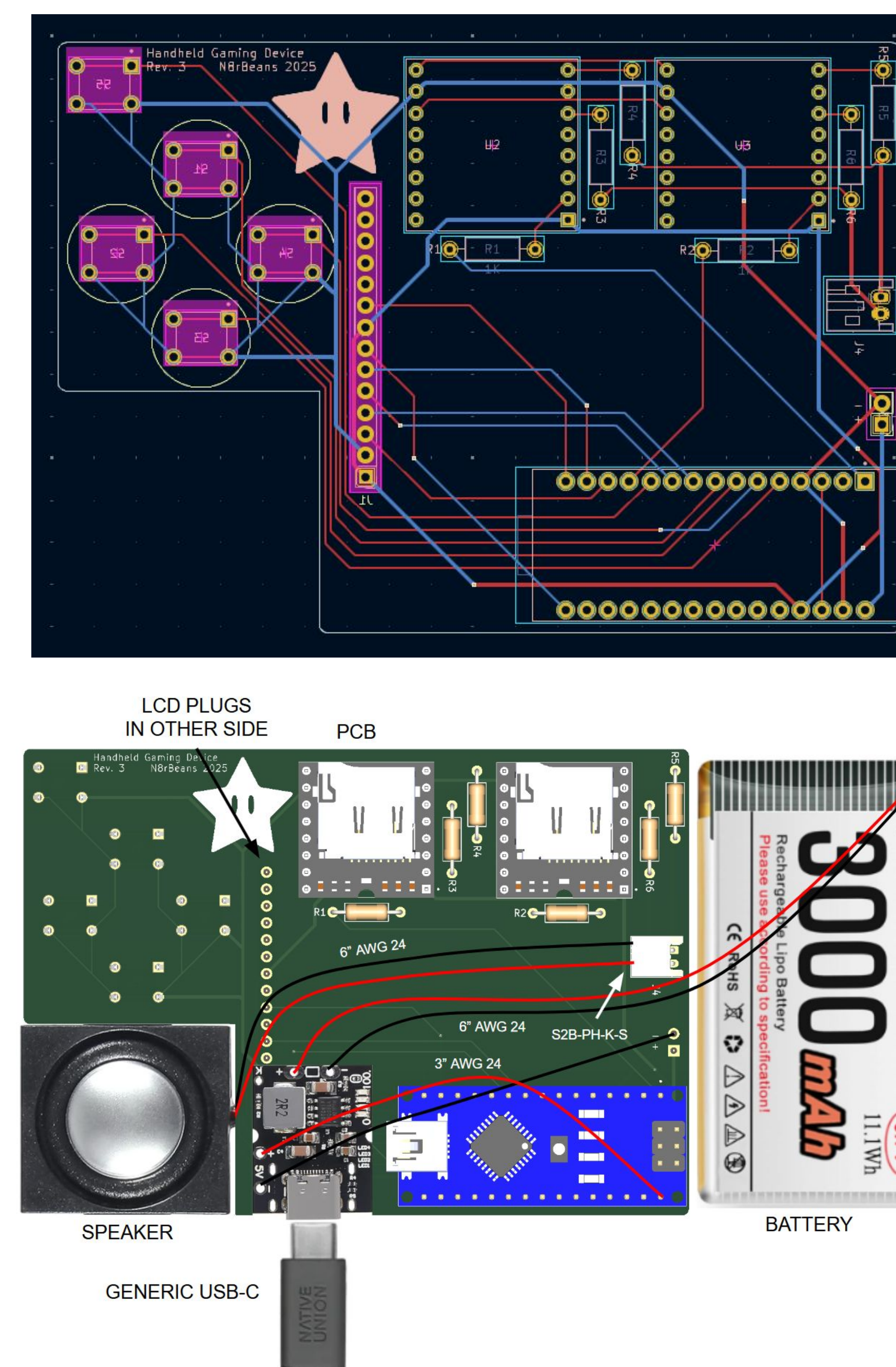
System Overview

The handheld gaming device is a platform for portable game design. As a proof of concept, the project comes packaged with some simple games to demonstrate how they take advantage of the device's features. It has a 320x480 16-bit color LCD, speakers, and USB-C charging. All firmware and games coded completely in embedded C with no external libraries, along with an innovative new screen drawing technique that enables variable refresh rate.

3D Models



PCB Design



Key Specifications

- Microcontroller: ATmega328P
- RAM: 2 KB
- Flash: 32 KB
- Battery: 3.7 V, 3000mAh
- Boost Converter: 3.7 -> 5V
- LCD: 320x480, 16-bit color, 4"
- Speaker: 3 W, 8 Ohm
- Buttons: 4 directional, 1 start
- Enclosure: 140 x 70 x 23 (mm)

Meet the Team

Computer Engineering:



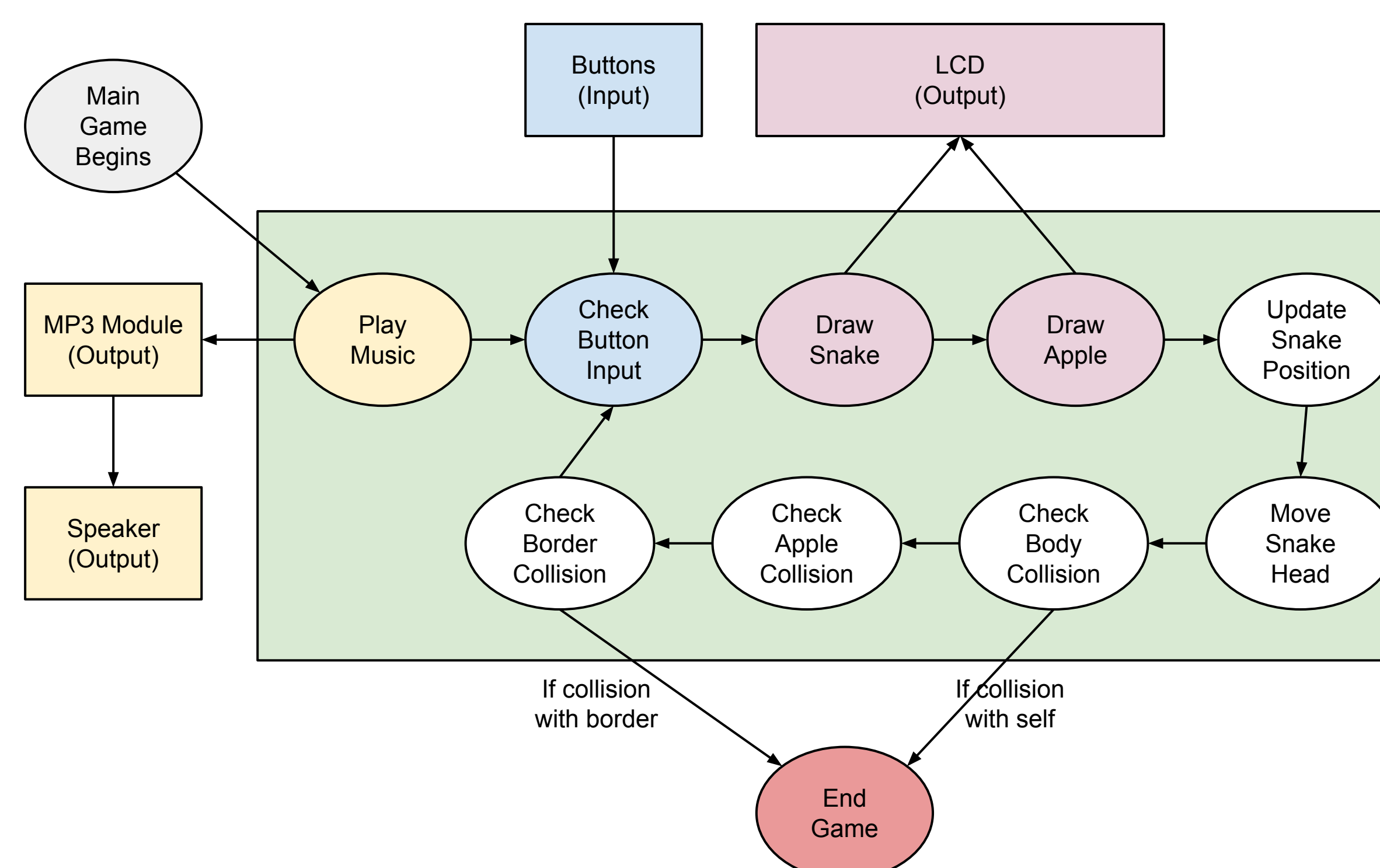
Nathan Johnson Isabelle Ablao Dimitri Stassinis

Electrical Engineering:



Arthur Gratas Edward Garcia

Snake Flowchart



System Diagram

