Advanced Development, Chamberlain Group Inc.

> August 2016 – December 2016

## Mechanical Engineer

## Product 1

- Plastic Enclosure design
- Prototyping using SLA 3D printer
- Snap and insert fits
- Lifecycle testing of motor
- Battery life analysis

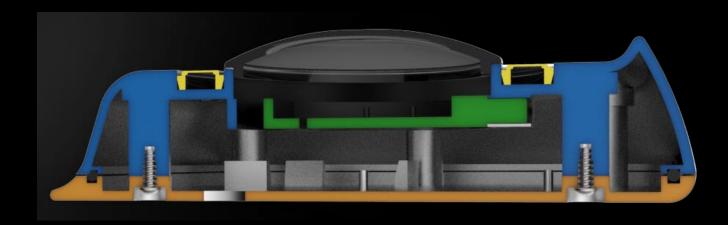




## Product 2

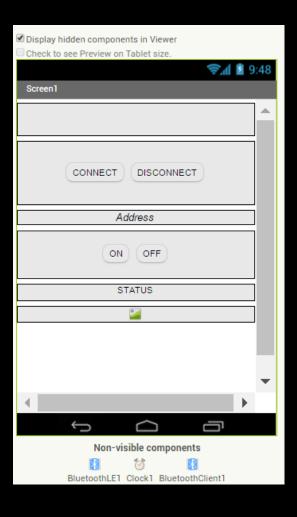
- Enclosure design for sheet metal
- Design for ingress protection (IP65)
- Design of O-ring seals and silicone seals
- Demo of functional prototype
- Investigated micro-perforation illumination technology





## Bluetooth Low Energy

• Sent and received data from Bluetooth Chip (two way communication) to smartphone.



 Built a smartphone app using MIT App Inventor

```
initialize global name to 50:31:3E:50:42:11
 Button3 . Click
call BluetoothLE1 .StartScanning
  BluetoothLE1 *
                 .DeviceFound
call BluetoothLE1 . ConnectWithAddress
                                address
set Label2 *
                              FoundDevice
               Text ▼
 Button1 . Click
call BluetoothLE1
                    .WriteIntValue
                                     A495FF2
                     service uuid
                                     A495FF2
               characteristic uuid
                            value
                           offset
```