

**Personal Project**

**Scent Can**

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**Introduction:**

As a personal project, and hopefully for commercial use, I am attempting to build a portable scent can which users can control with their app and bring wherever they want. This can is inspired by the portability of “Zyn” can and pouches and visually reflects that. It uses a centrifuge blower mechanism and pushes air through a scent pouch.

**Initial Conditions:**

- Must fit in pocket
- Must have interchangeable scents
- Must be very quiet

**Initial Design:** Started Designing with constraints based on the actual zyn can. Allowed for portability and initial scope

**Contained:**

- 150 mah battery
- Push button
- 6x10mm motor and lipo battery charger



**Figure 1: Initial Prototype back**



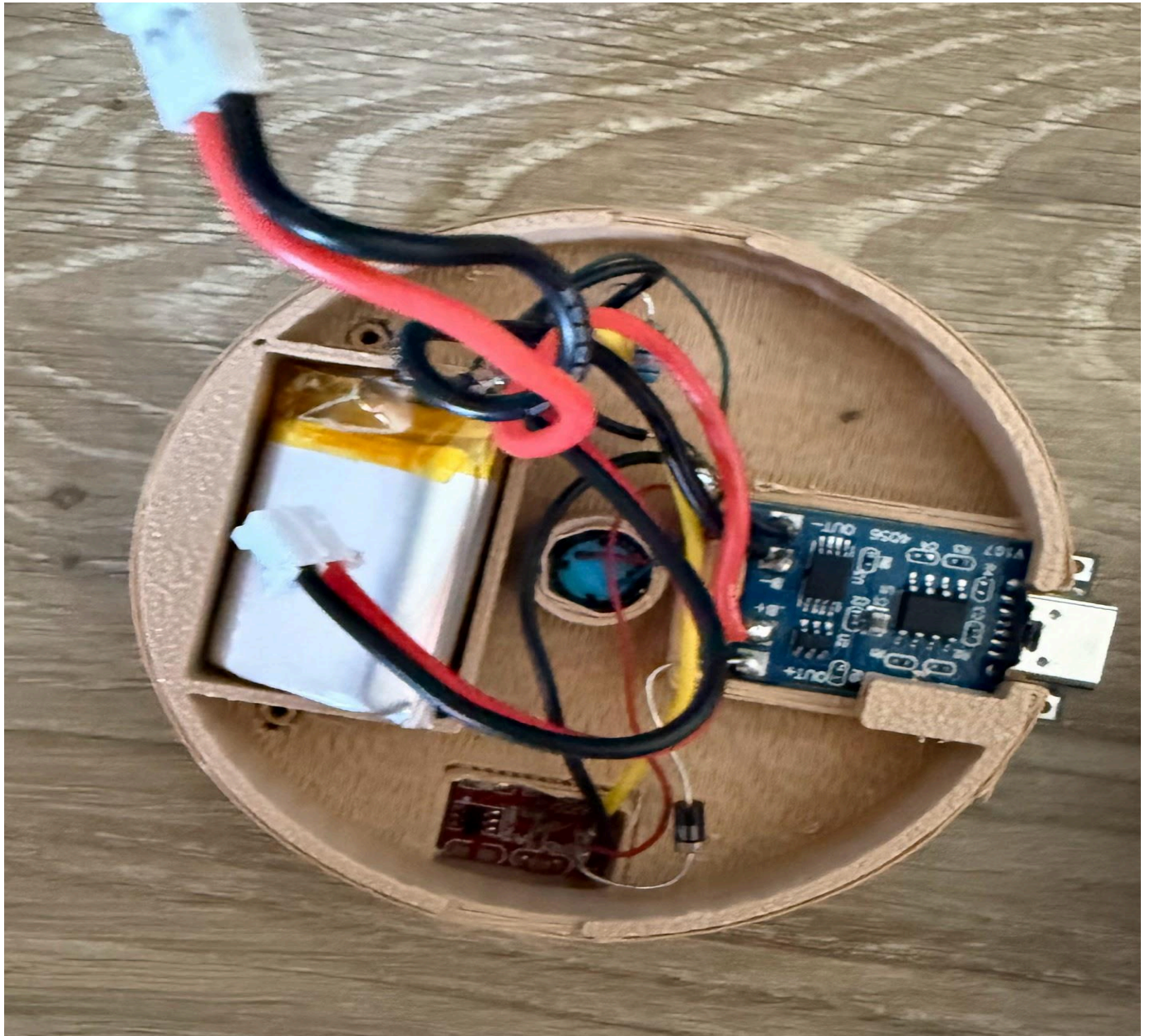
**Figure 2: Initial Prototype Center**



**Second Design: Realized doesn't have to be size of zyn can, slightly made it bigger and designed it with an intention for a cleaner look**

**New Changes:**

- Now a 500 mah battery
- Changed Charging module to tp 4056
- Added a mosfet and ttp223 for capacitive touch



**Figure 3: Second Prototype Back**

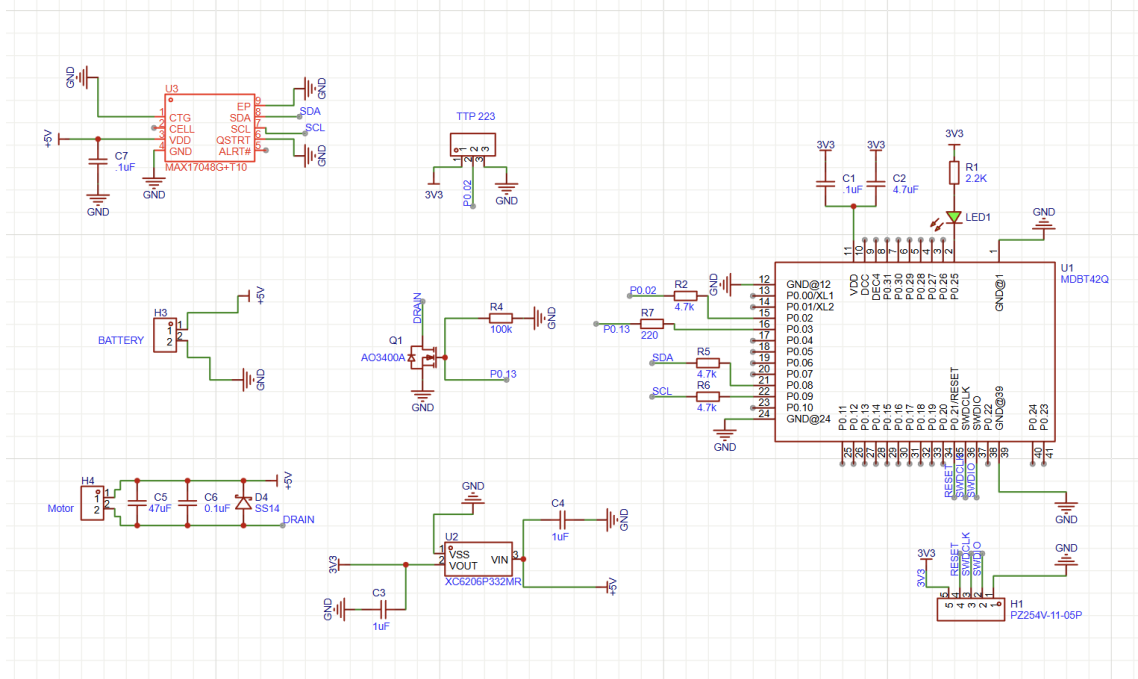


**Figure 4: 2nd Prototype Front**

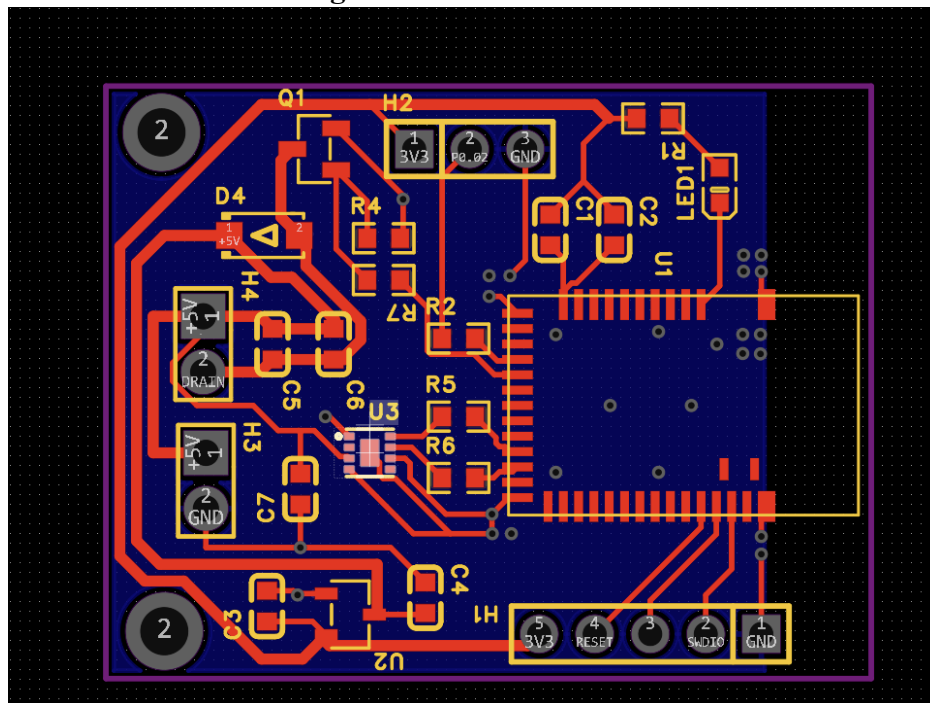
**Third Design:** Started designing with the intention for an app based control and optimized based on that

**New Changes:**

- Added a custom PCB to control all components from one board and communicate with device



**Figure 5: PCB Schematic**



**Figure 6: PCB**



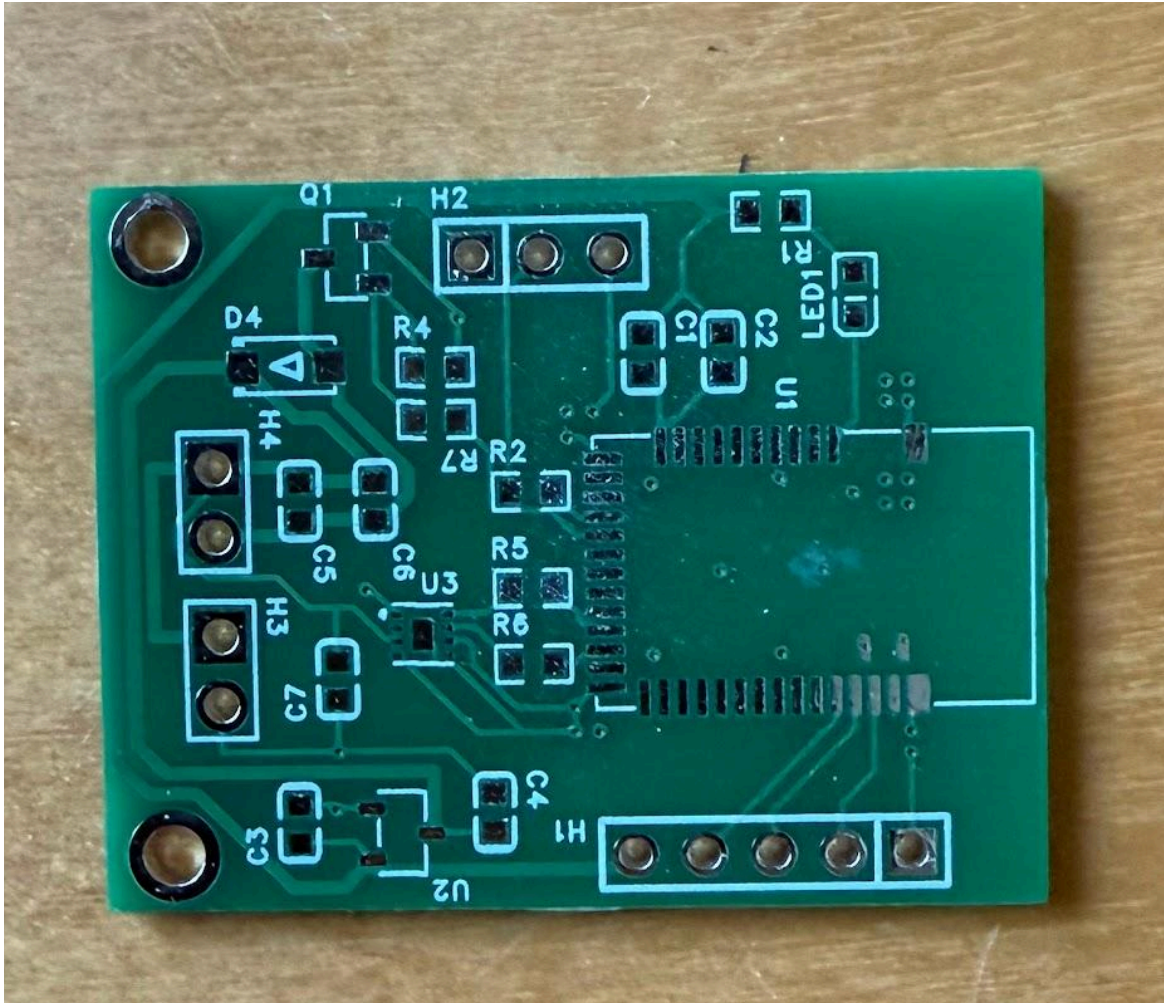
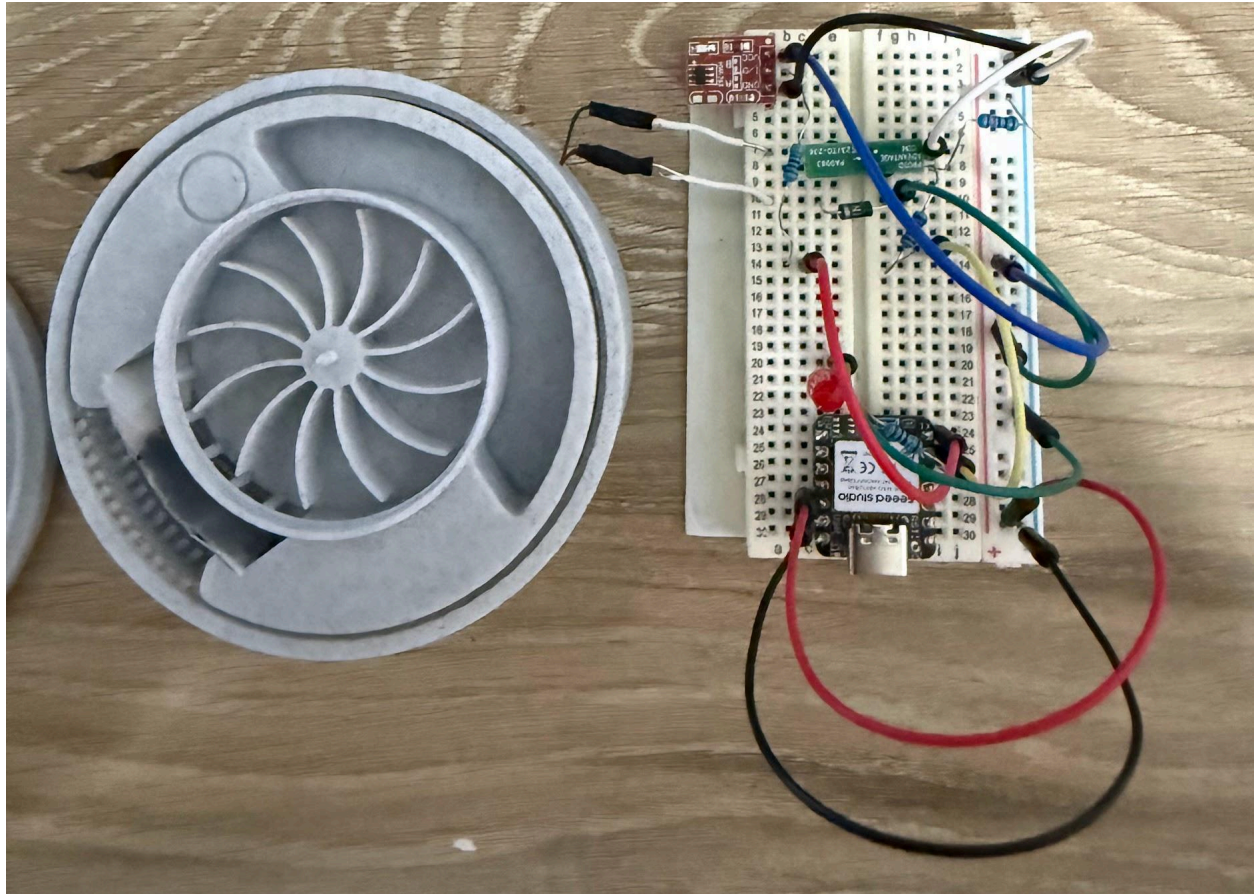


Figure 7: Physical PCB





**Figure 8: Prototype with BLE functions**