Smart Safe

The most secure way to get your favorite candy

What did it take to make this happen?

Peer review

Understanding the problems

Design

Function

Build

Demo

Where did it start

- Brainstorming with Jessica

- Conversation with Chad
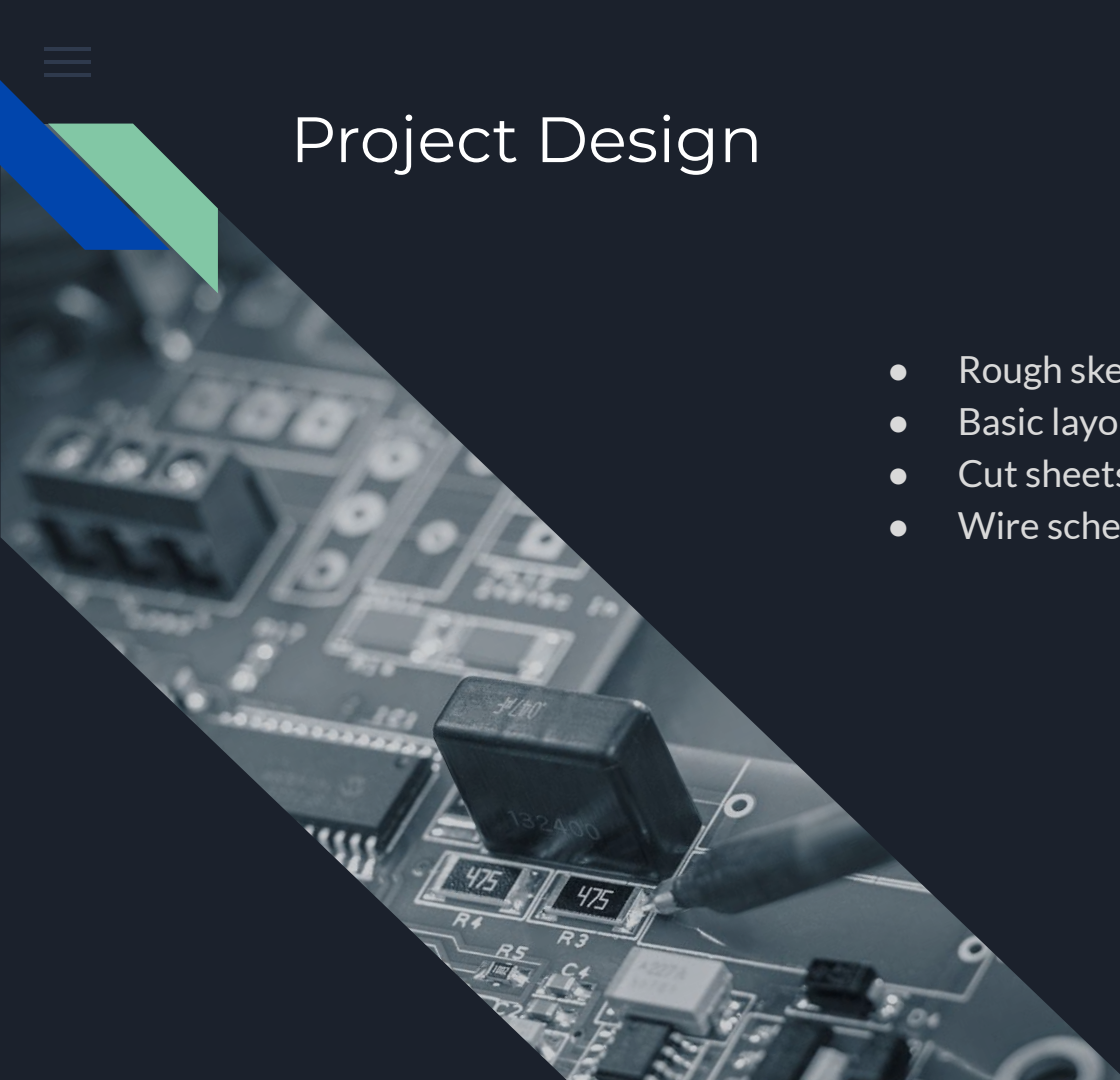
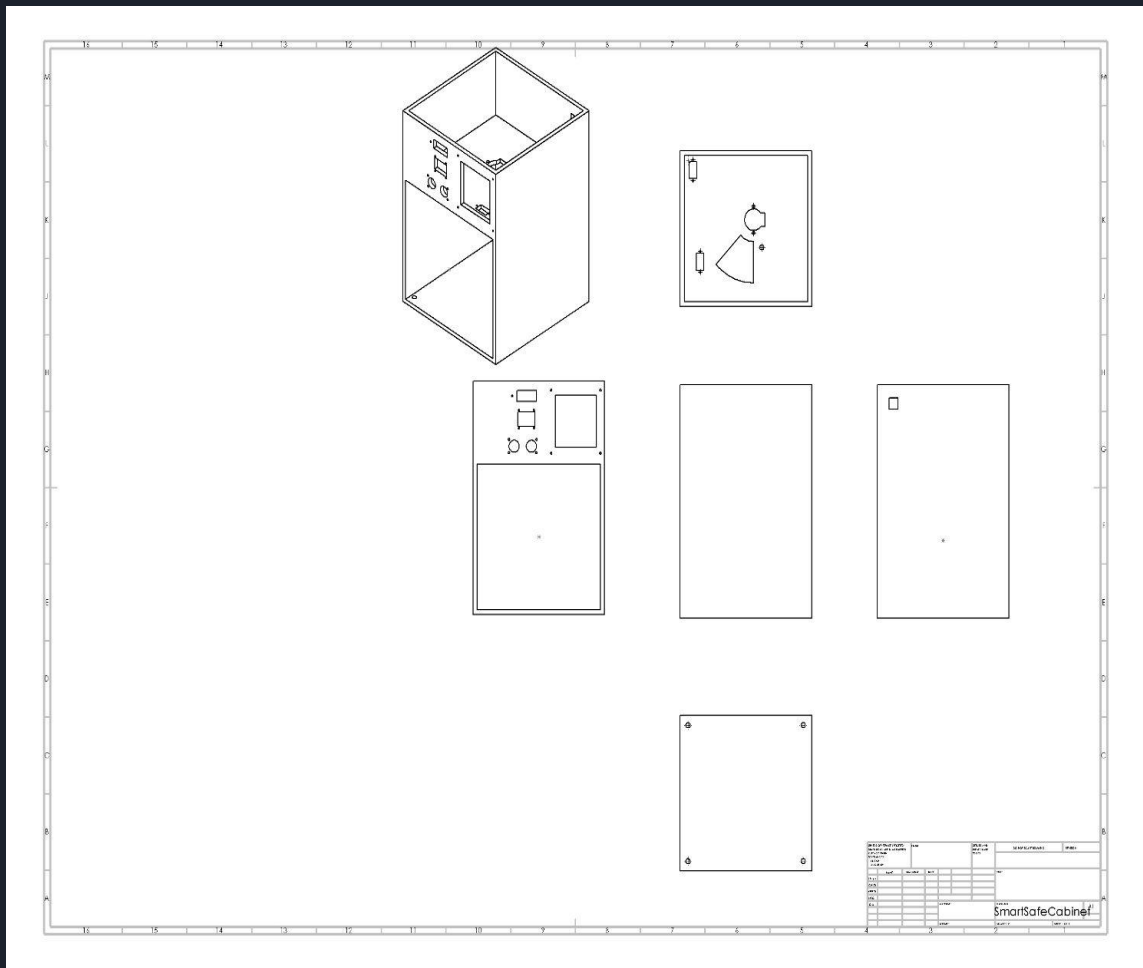- Confirmation by Brian

Understanding the problems

01   How can a safe also give me candy?

02   What components can be used to build a safe?

03   Writing code to be clear and function as expected.

Project Design

- Rough sketch in note book
- Basic layout in SolidWorks
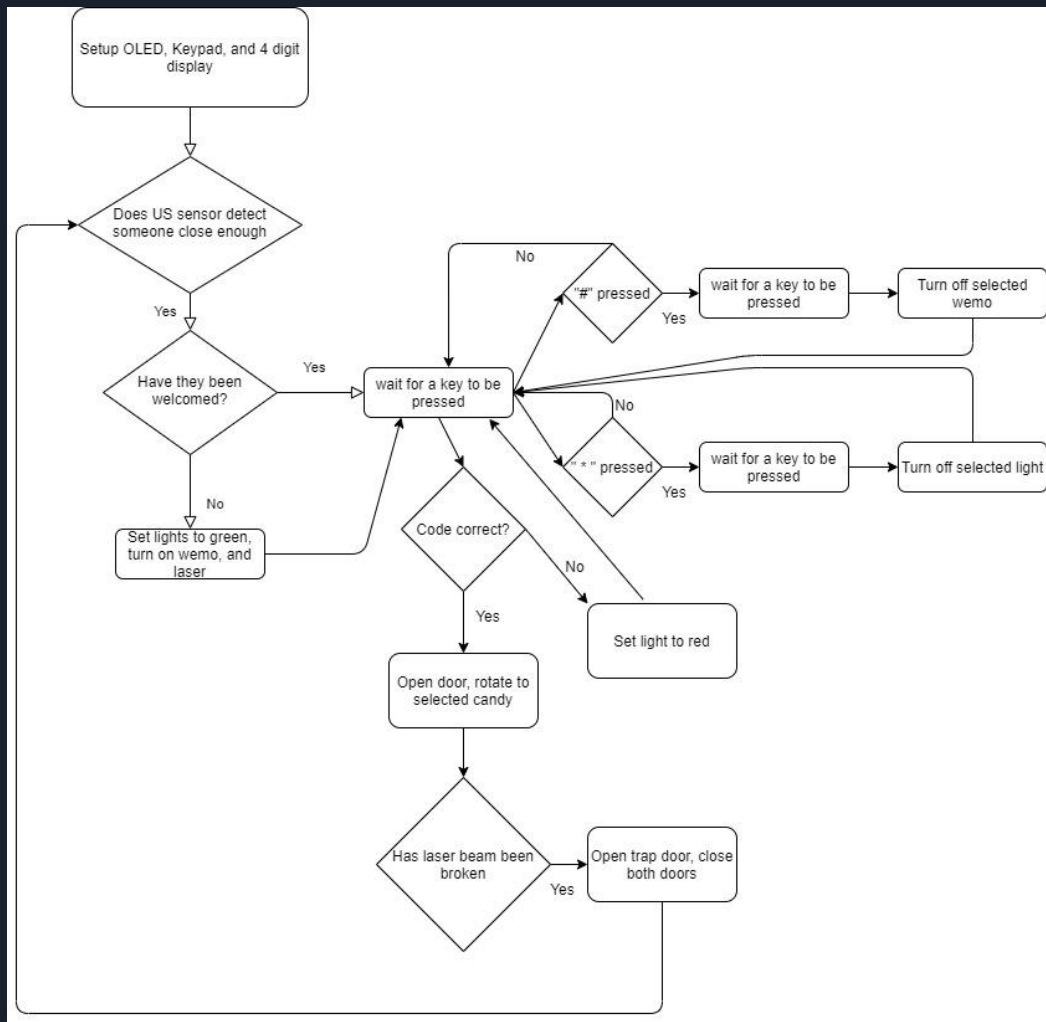- Cut sheets in AI
- Wire schematic in Fritzing

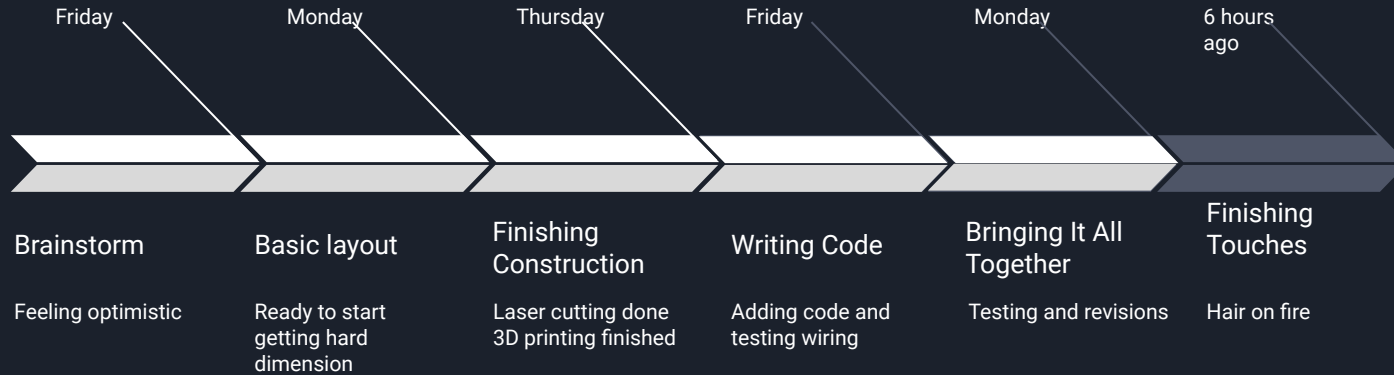# User interaction

How does one expect to use a Smart Safe?

- Detects you walking up
- Enter code
- Select Candy
- Get candy
- Use keypad to control other devices

Setup OLED, Keypad, and 4 digit display

Does US sensor detect someone close enough

Yes

Have they been welcomed?

Yes → wait for a key to be pressed

No → Set lights to green, turn on wemo, and laser

No → "#" pressed

Yes → wait for a key to be pressed → Turn off selected wemo

No → "*" pressed

Yes → wait for a key to be pressed → Turn off selected light

Code correct?

No → Set light to red

Yes → Open door, rotate to selected candy

Has laser beam been broken

Yes → Open trap door, close both doors

Build timeline

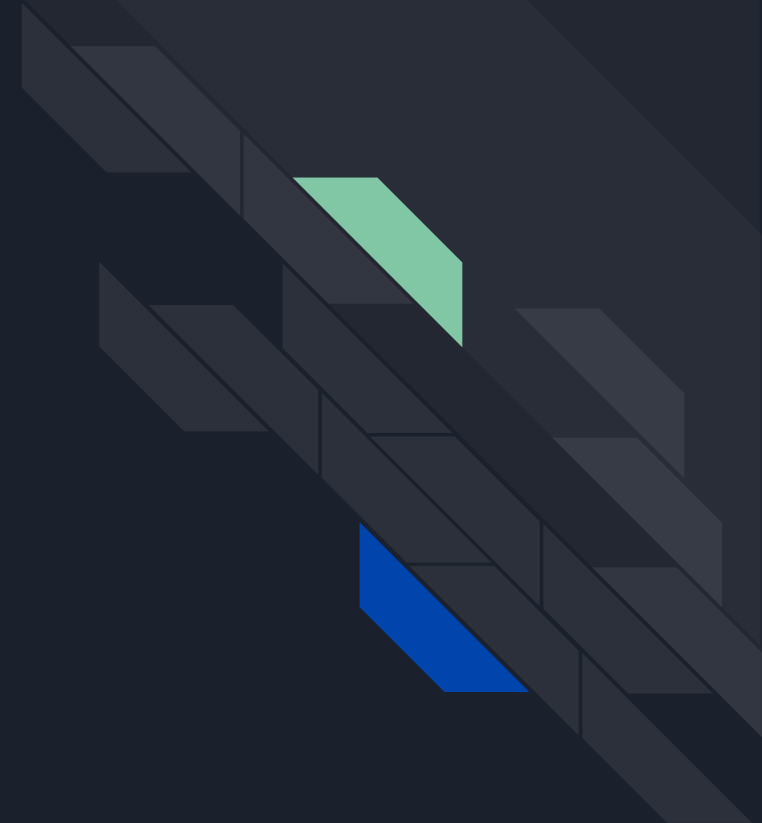| Friday	Monday	Thursday	Friday	Monday	6 hours ago
Brainstorm	**Basic layout**	**Finishing Construction**	**Writing Code**	**Bringing It All Together**	**Finishing Touches**
Feeling optimistic	Ready to start getting hard dimension	Laser cutting done 3D printing finished	Adding code and testing wiring	Testing and revisions	Hair on fire

Current state demo

&

Future implementation

Thank you!

Find more details at

- GitHub
- Hackster

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Questions