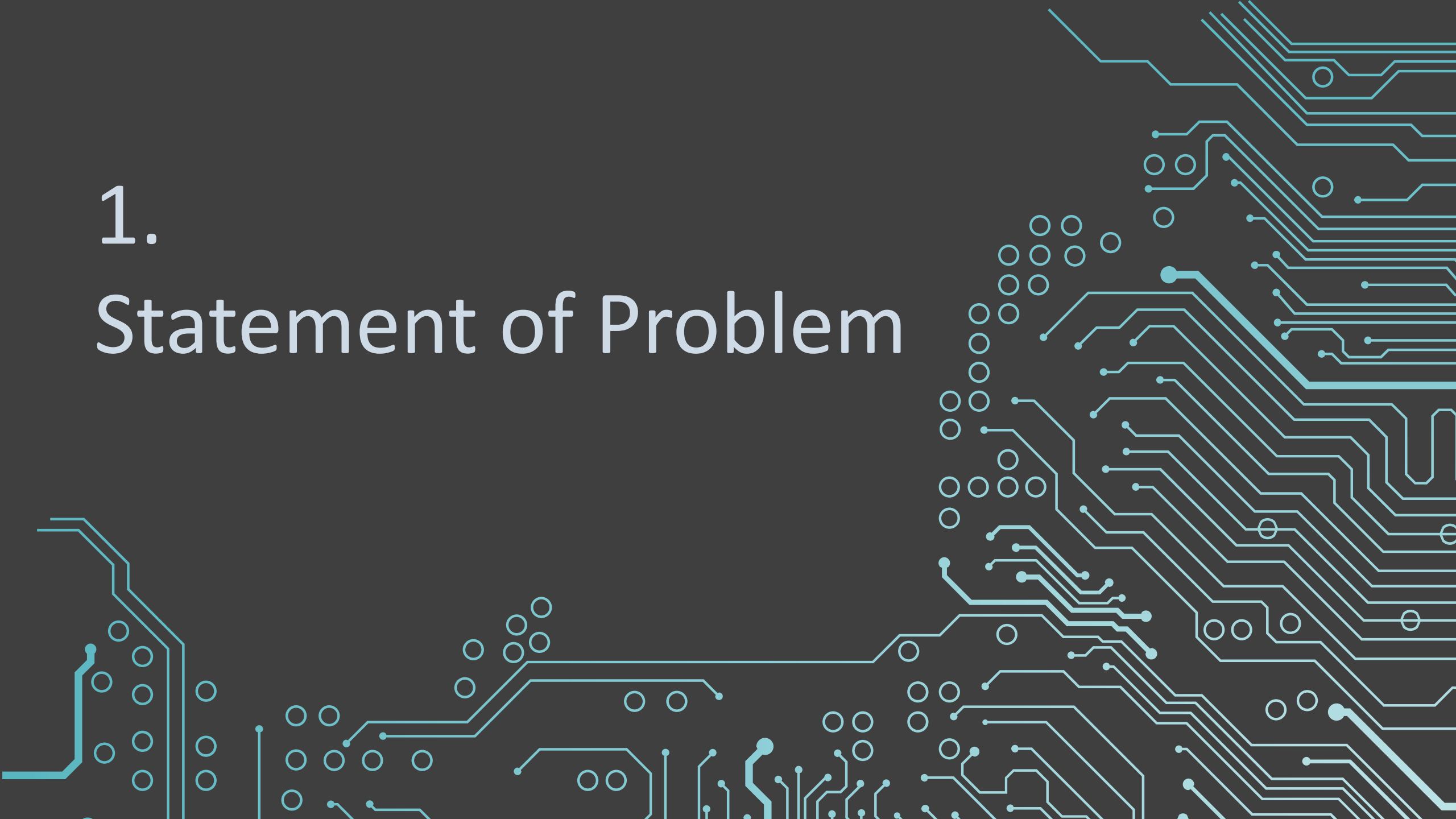

Is It Too Warm for Kat
To Go Outside?

1.
Statement of Problem

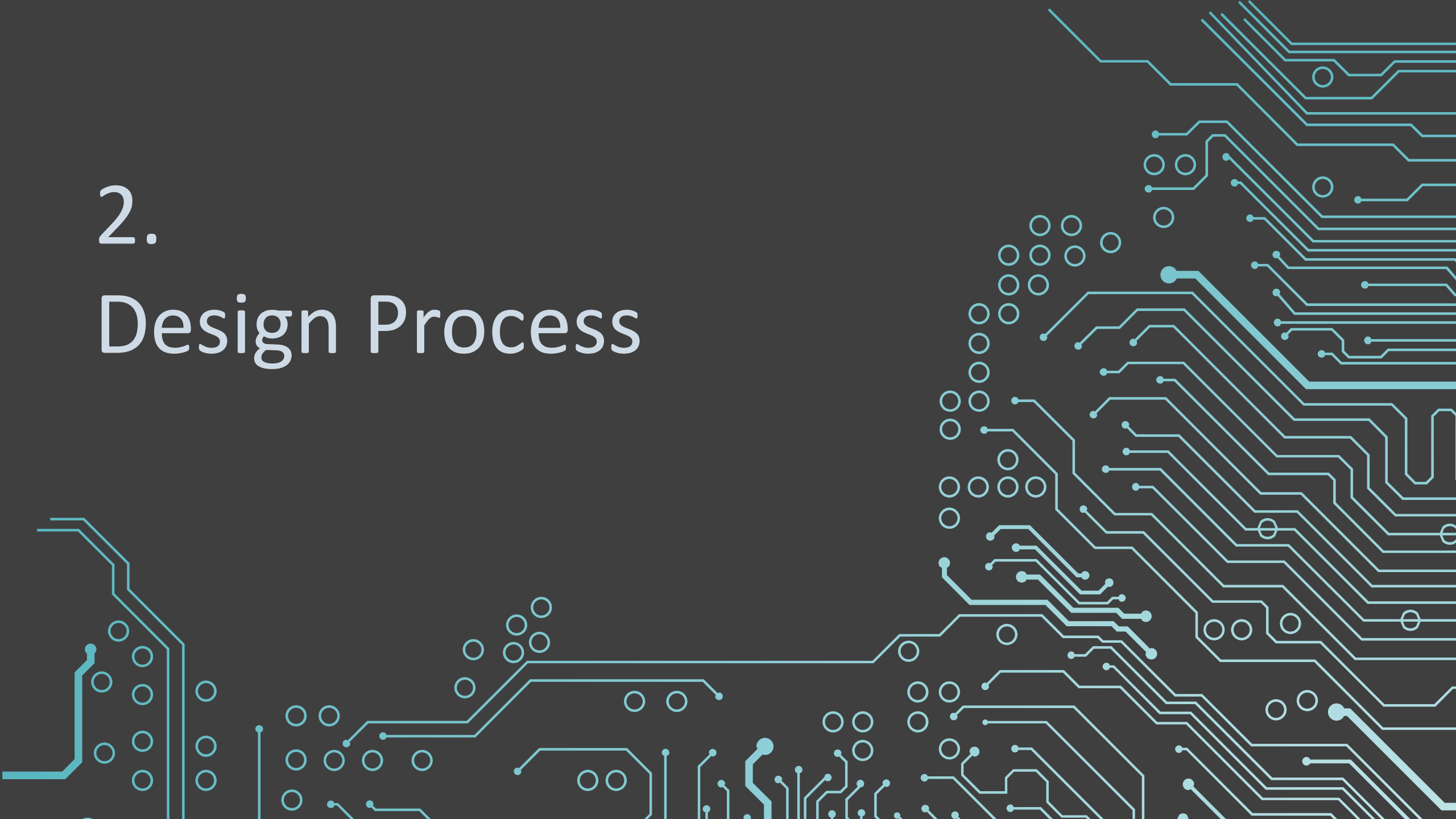


I don’t really like when it’s hot outside

- It’s very much a personal problem
- Most people put up with it
- I’m required to go outside to water my garden and weed

How do I let myself know it’s too hot to go outside?

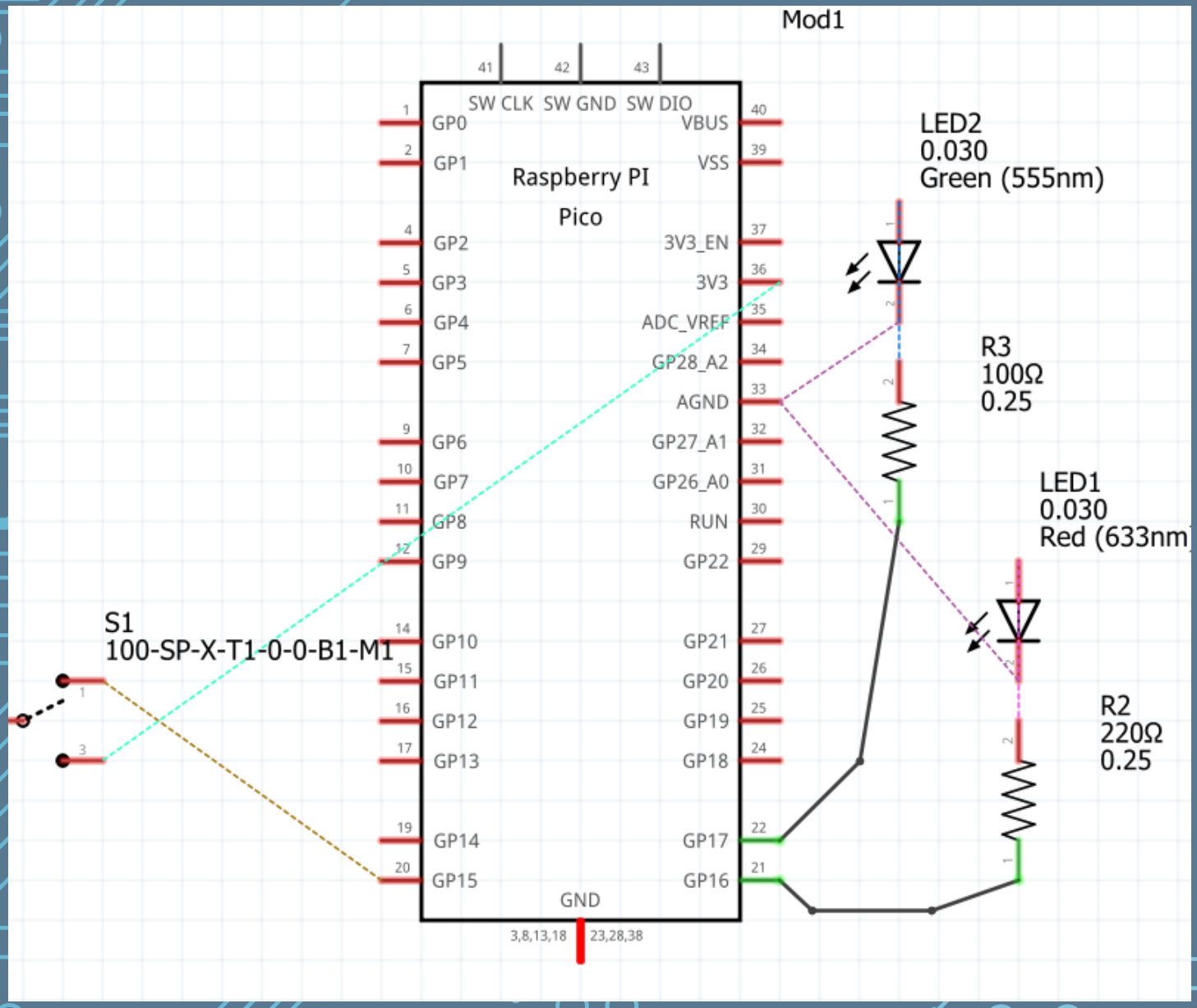
2.
Design Process



1. Brainstorm to come up with a problem
2. Get inspiration
3. Figure out how to wire the breadboard
4. Code the thing
    - CS Student
    - Interrupts
5. Enclosure

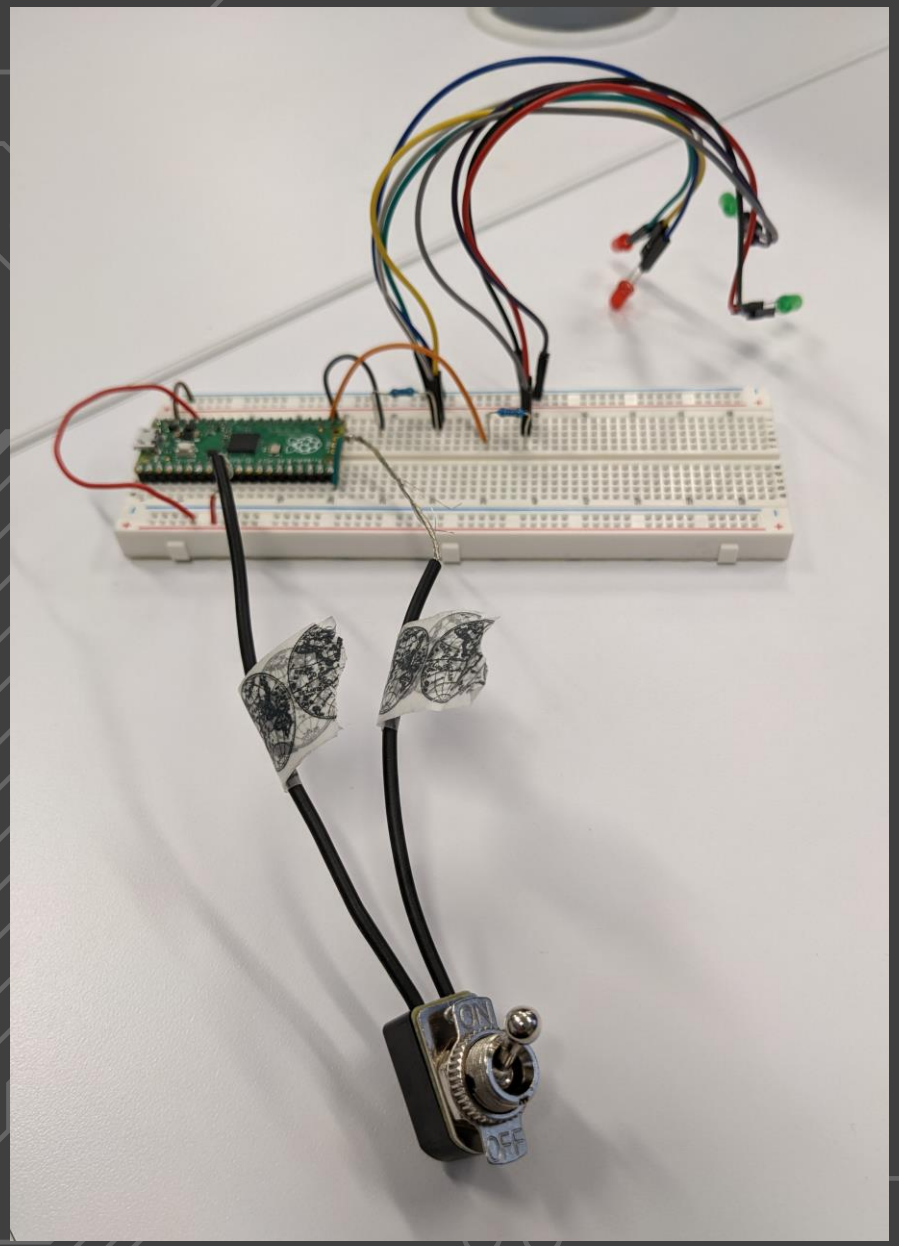
3.
Design Result

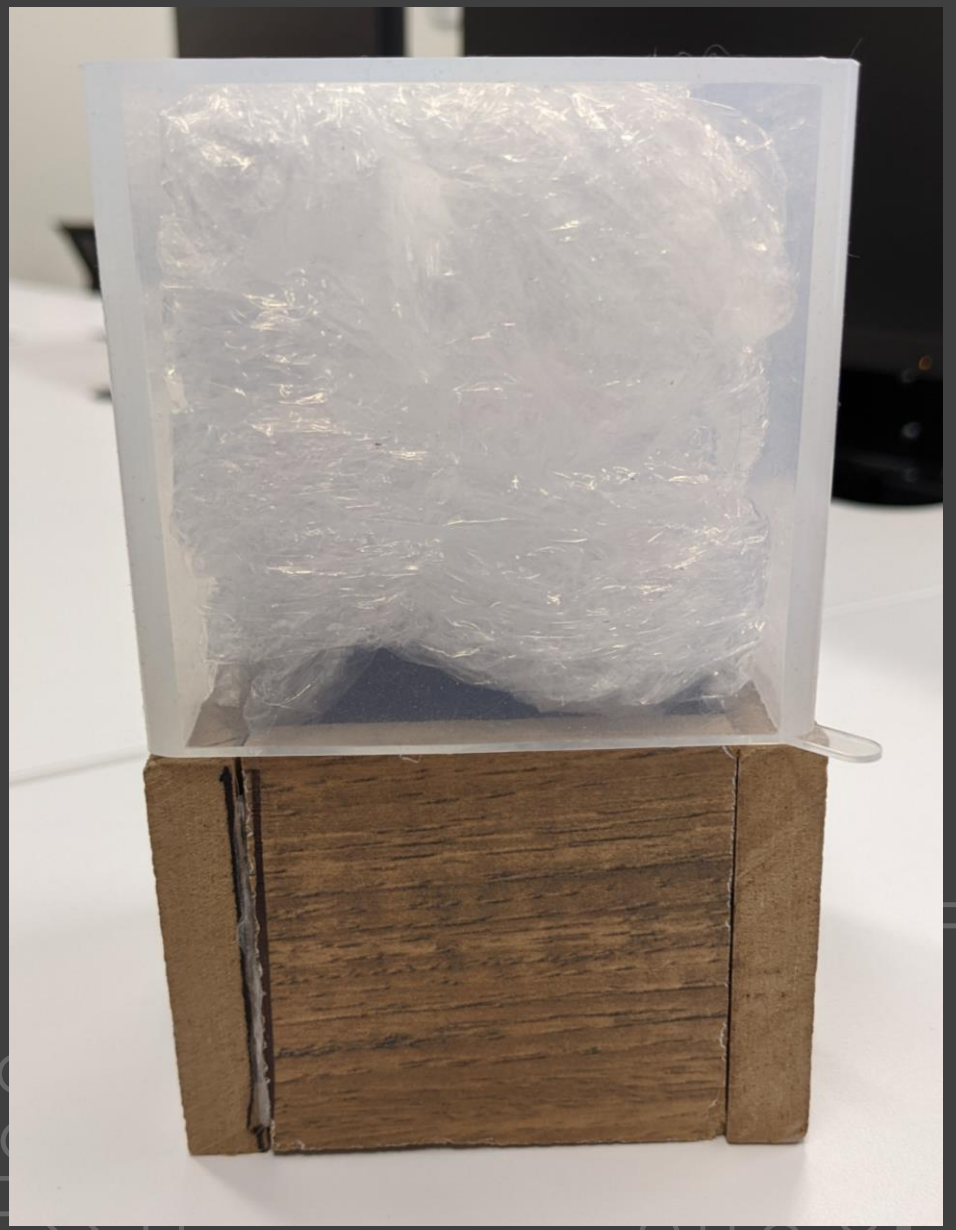
Circuit Schematic



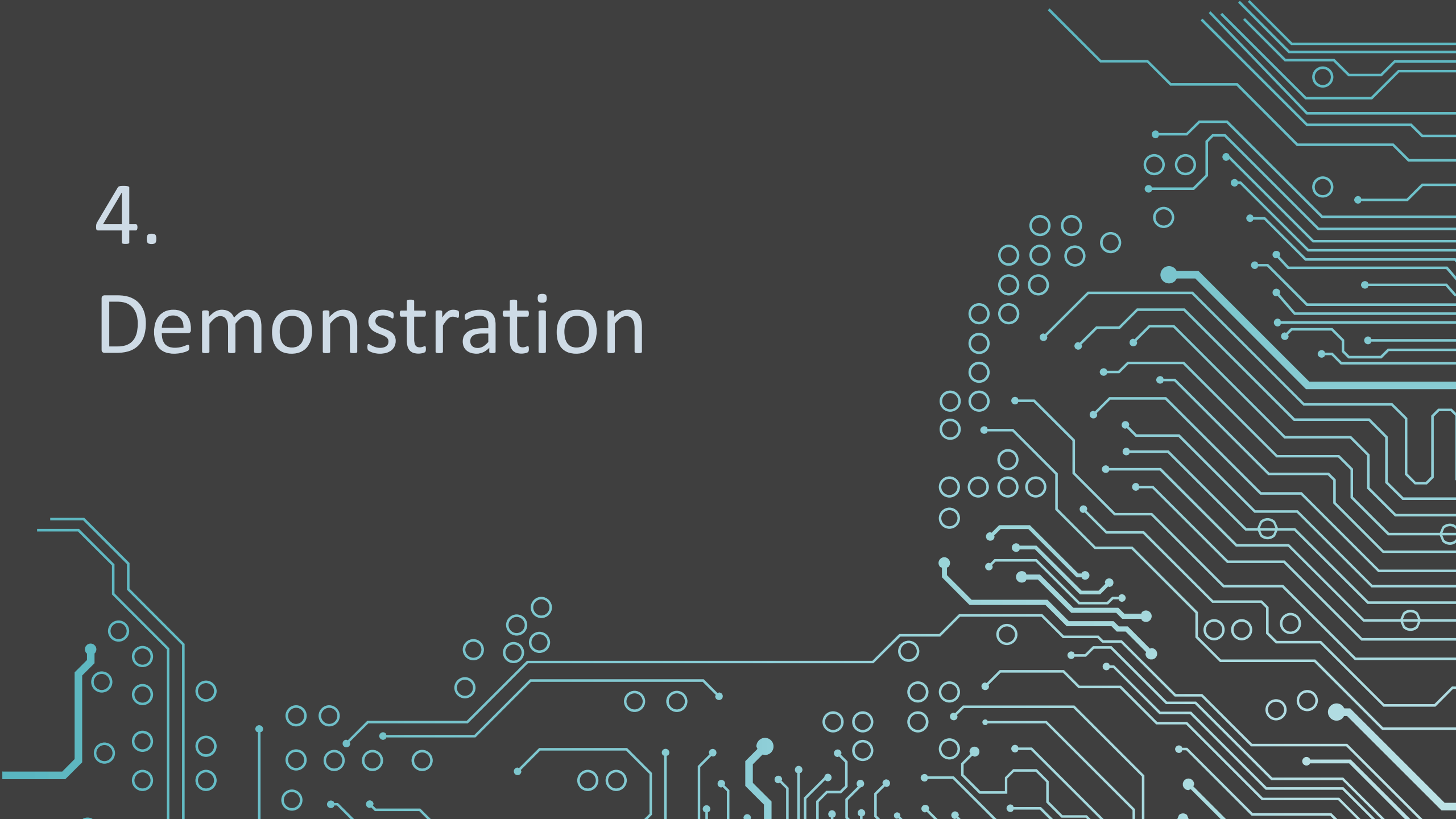
Done with fritzing

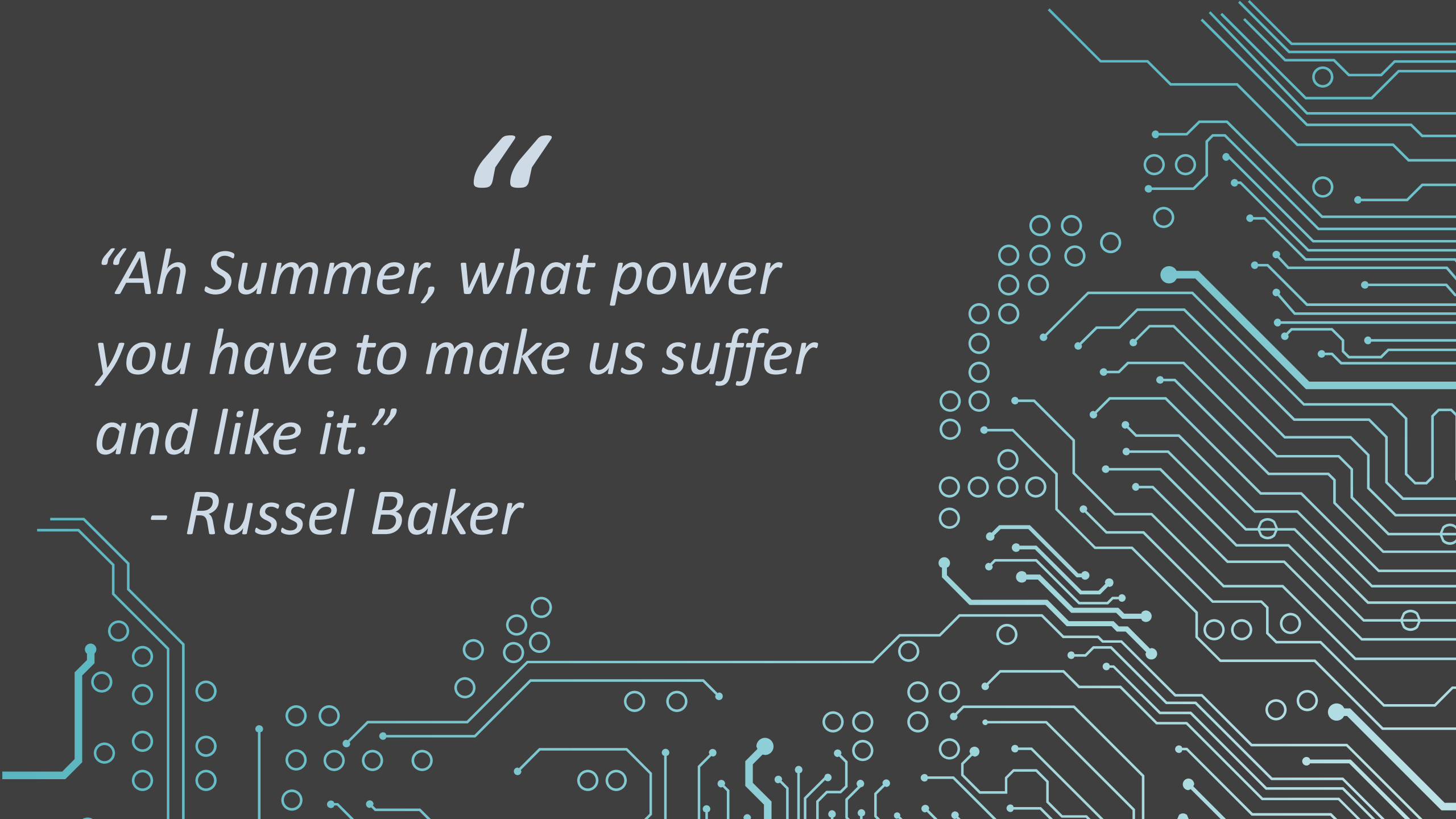
software


ON
OFF



4. Demonstration




“
“Ah Summer, what power you have to make us suffer and like it.”
- Russel Baker

5. Challenges

Design Challenges and Accomplishments

- Wasn’t sure how I was going about an interrupt
- Once I figured out that the circuit was independent of from the code, and vice-versa, it fell in place.
- Toggle switch debouncing
- LED PWM fading from red to green
  - Figured that changing duty cycles between red and green would take too much time
  - Didn’t figure out how to use RGB LED
- MicroPython is really powerful!
- Learned that I wanted to turn the project into a weather station


Thanks!
Any questions?

Credits

Special thanks to all people who made and shared these awesome resources for free:

- Presentation template designed by powerpointify.com
- Photographs by unsplash.com