

Custom Time 005-2

Mar 12 2023

Richard Cerrato, Alex O'Sullivan, Kexin Liu

Introducing the Problem

- Tasked with making a timer
 - Accurate
 - Safe
 - Intuitive
 - Easy to hear
 - Adjustable brightness
 - Pausable
 - Warning Feature
 - Last Long

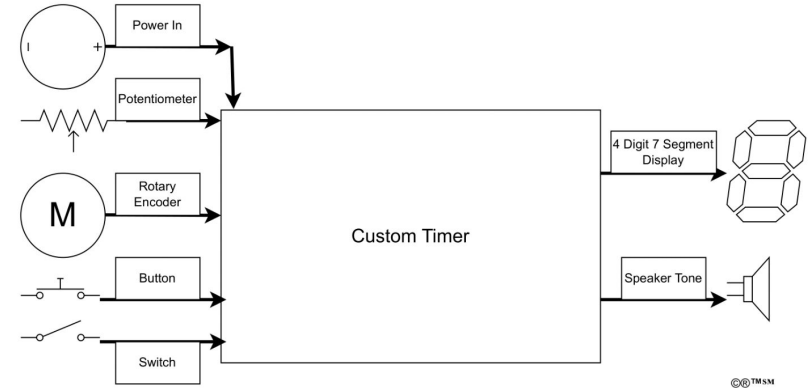


Free Image courtesy of [Enikő Tóth](#)

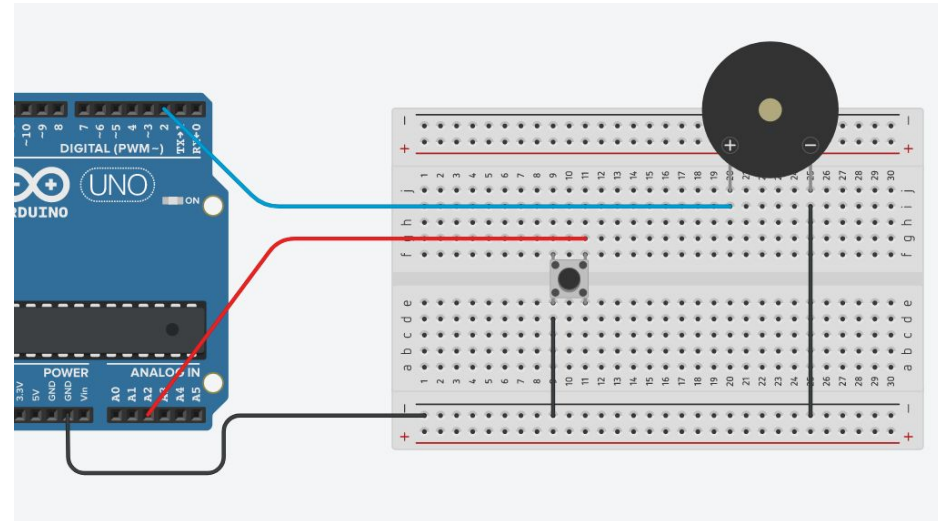
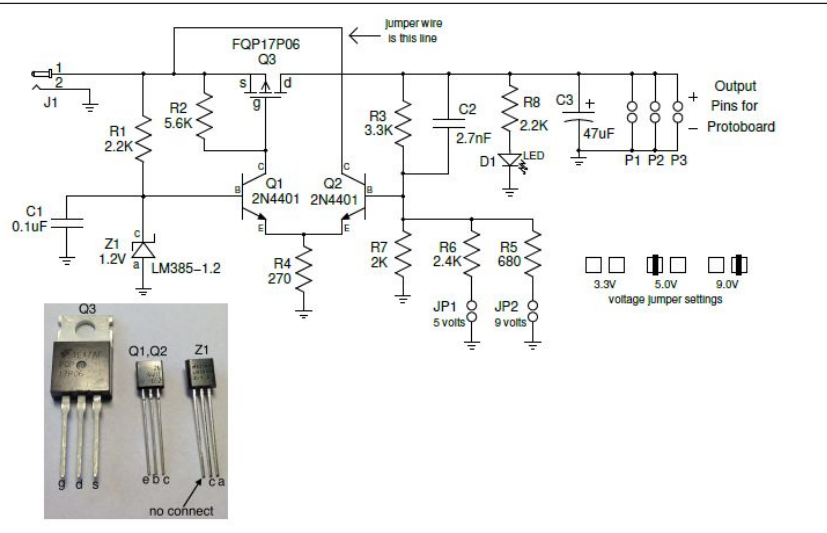
Divide and Conquer

- Split project into multiple blocks
 - Alex: Power Supply and Speaker
 - Richard: Countdown , Pause/ Reset
 - Kexin: Time-set and Brightness
- Collaborated after each block was completed

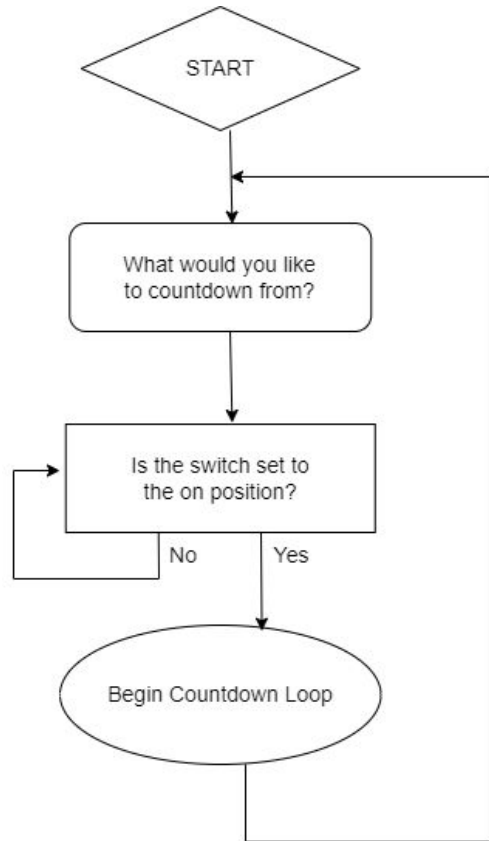
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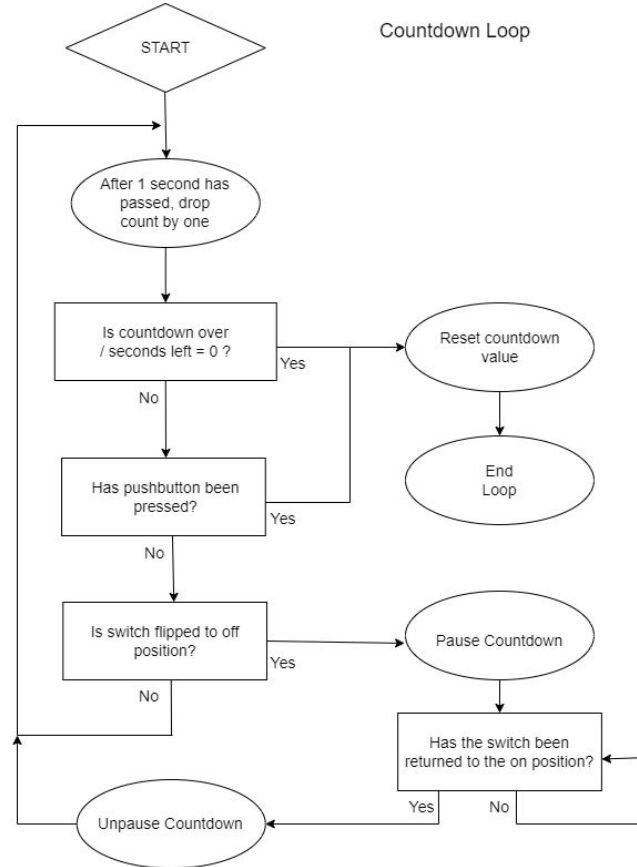
Power Supply/Speaker



Countdown/ Pause and Reset

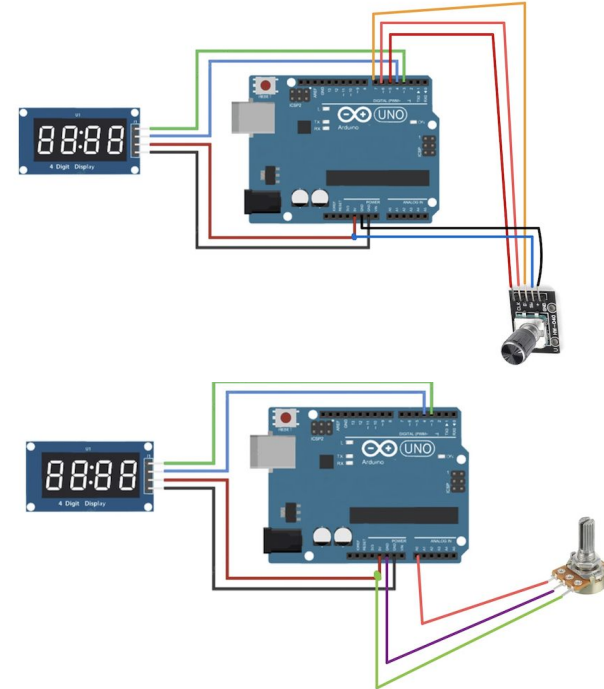
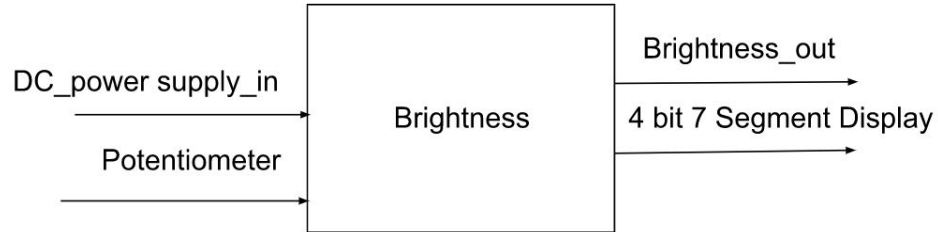
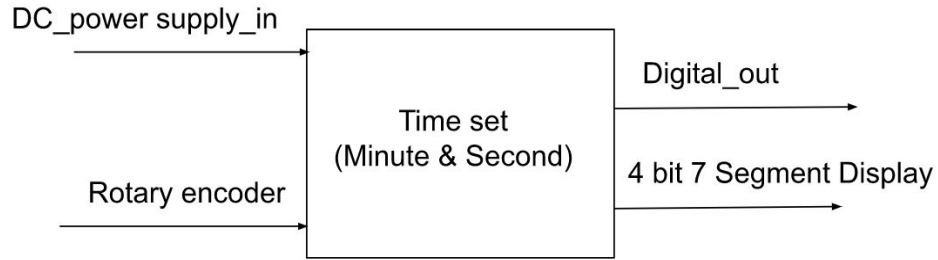


Main Loop



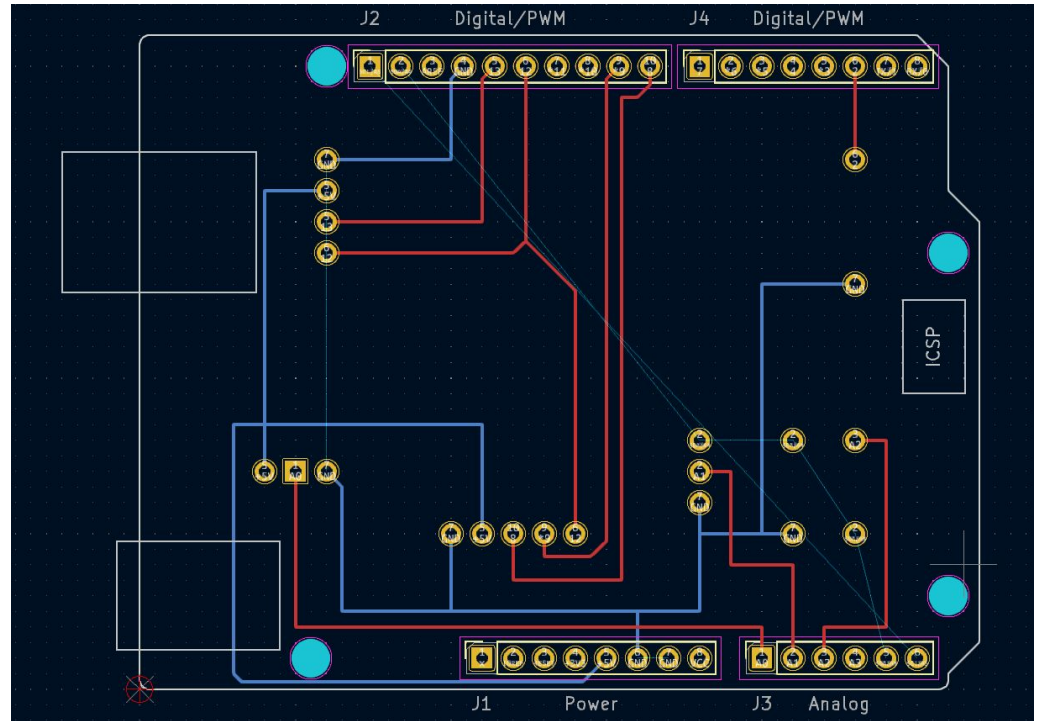
Countdown Loop

Time Set/Brightness

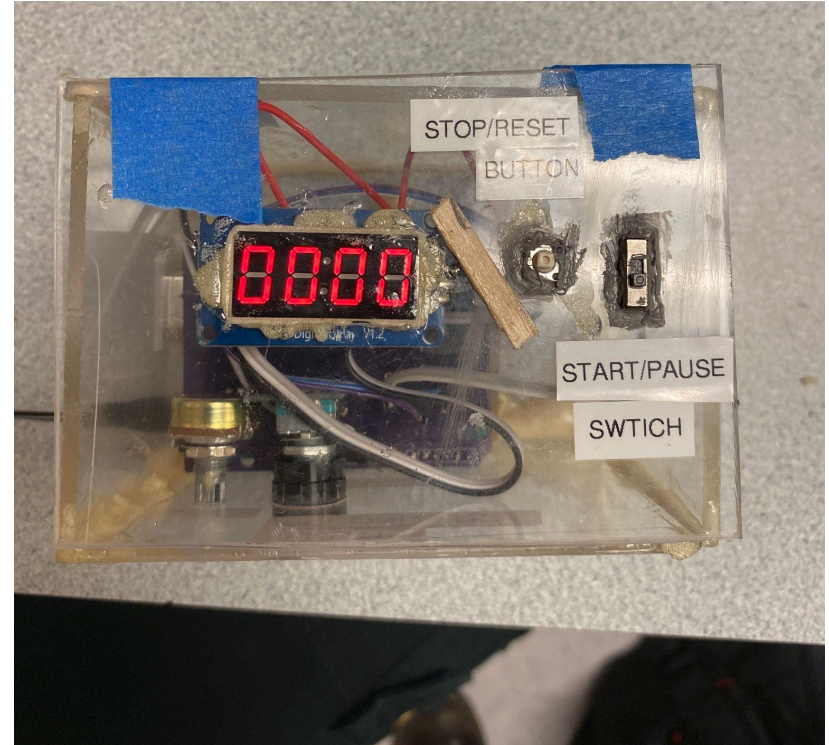
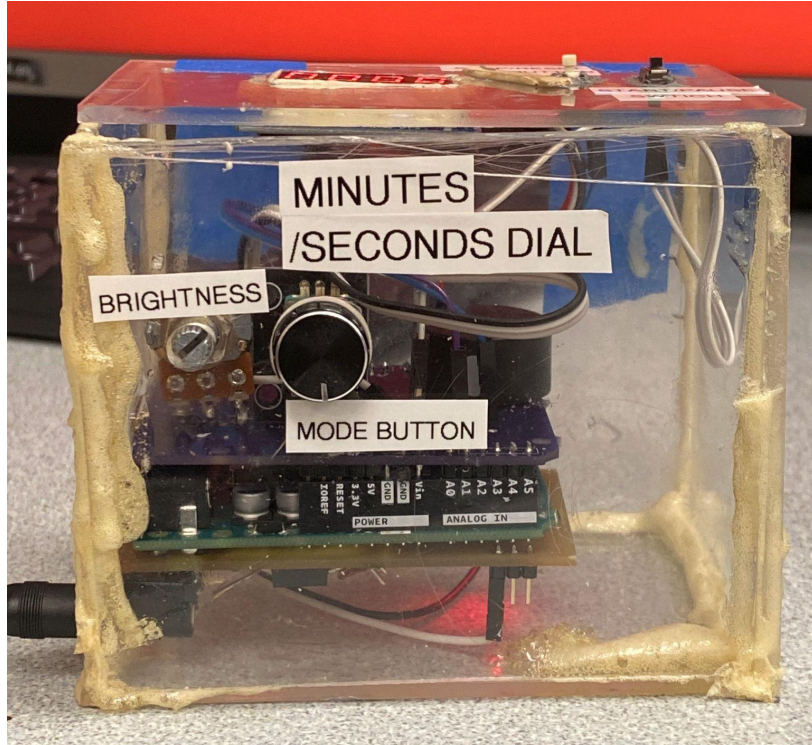


Putting It All Together: PCB

- Used KiCad software
- Sent to OSH Park for fabrication.

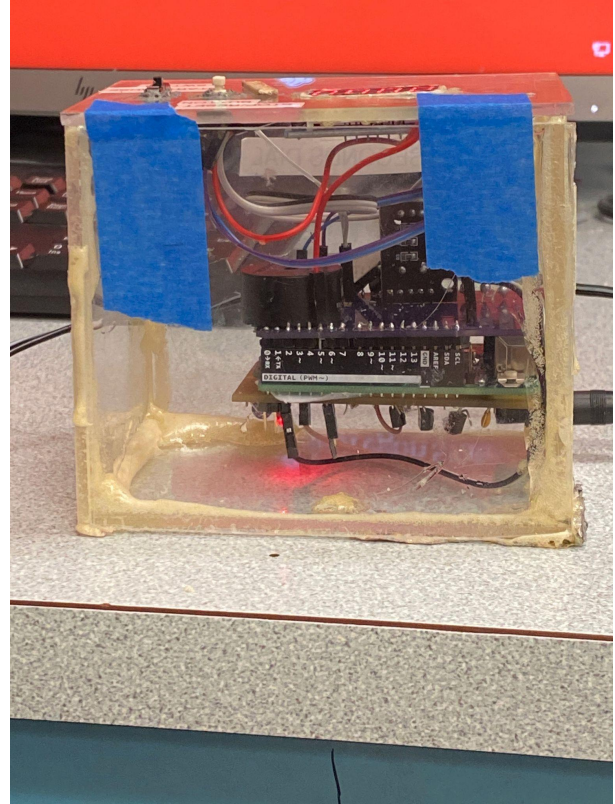


Putting It All Together: Enclosure



Conclusion

- Met objectives
- Positive reception during showcase
- Learned team building skills



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