

Digital Clock Project

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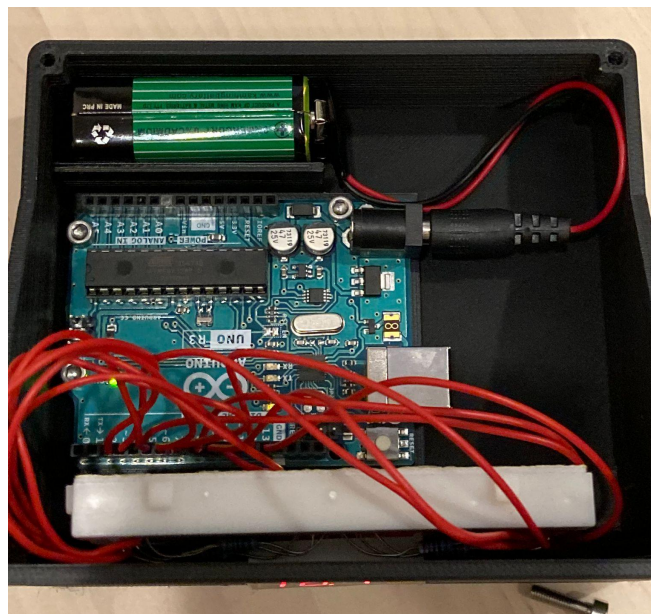


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[1] Abstract

The goal of this project is to create a digital clock that is able to display the time in the form of military time (24 hour).

[1.1] Roles

- **Project Manager:** Roger Nguyen
 - **Embedded Systems Team:** Matthew Do & Phillip Doan
 - **Mechanical Team:** Roger Nguyen & Phillip Doan
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[2] Analysis on Design

[2.1] Basic Information

- **Material:** Polylactic acid (PLA)

[2.2] General Performance

- The enclosure is able to hold the arduino.
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[3] Mechanical Expectation

[3.1] Overall

- **Volume:** Fit inside a 7 inch cube.

[3.2] Mechanical Components

- Enclosure Top
 - Enclosure Bottom
 - M3 Screws
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[4] Software Expectation

[4.1] Hardware/Electronic Components

- 9 Volt Battery
- Power Jack
- Arduino Uno Rev3
- Breadboard
- 220 Ohm Resistors
- 3461BS 4-Digit LED 7-Segment Display

[4.2] Embedded:

- **LED Display:** The screen should be able to display the time in hours and minutes.

[4.3] Software:

- **Time:** Be able to display the correct time and update when time has passed.
- **Standard:** Display 24 hr (military) time.

[5] References

- <http://www.xlitx.com/datasheet/3461BS.pdf>
- <https://www.arduino.cc/reference/en/>
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