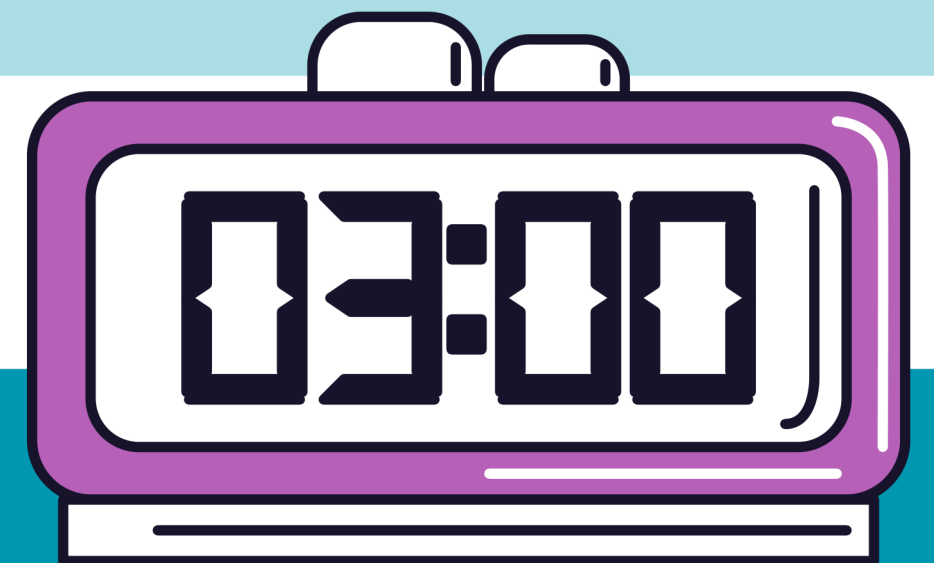


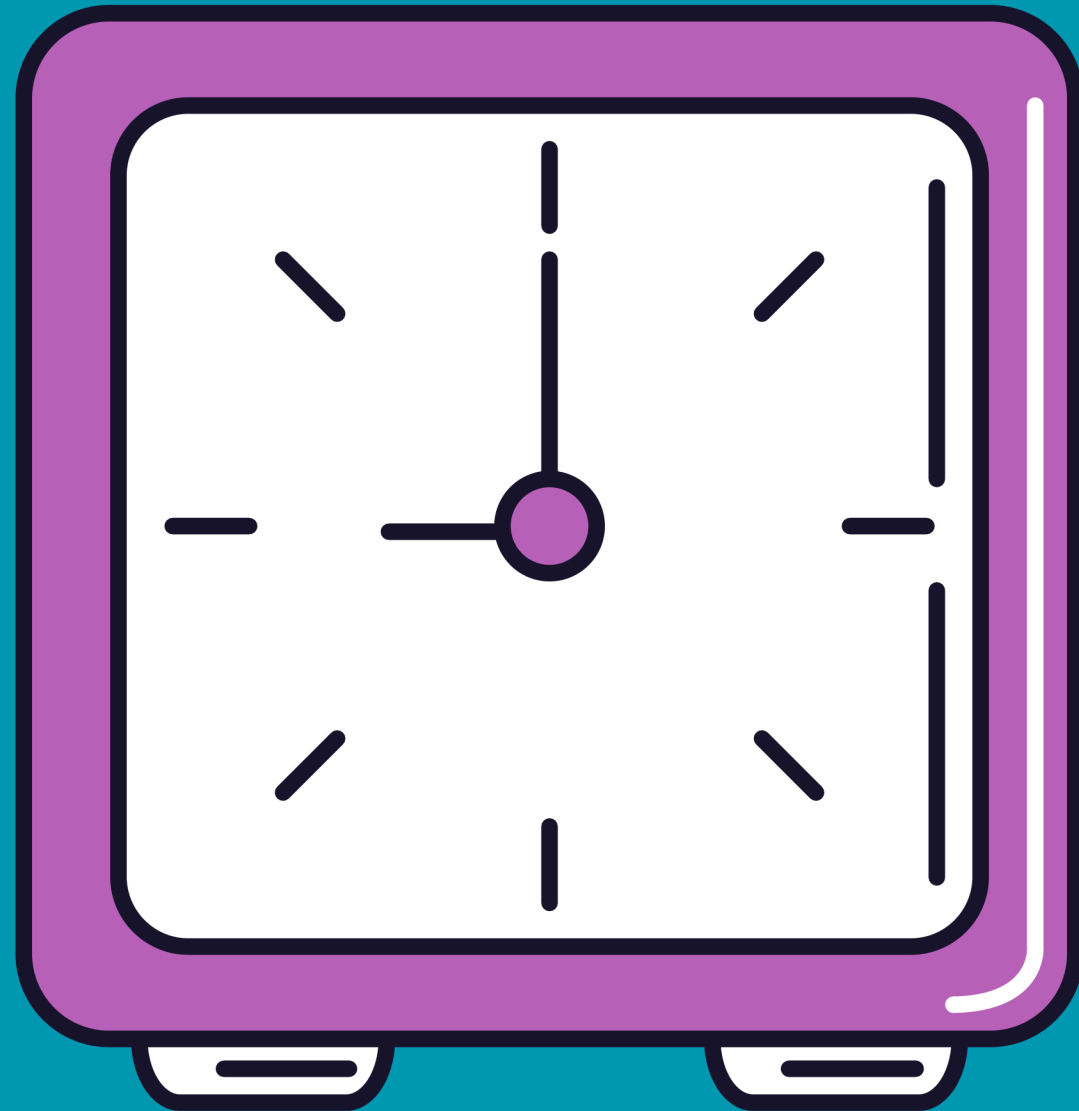
CHRONO CLOCK

SUPERVISED BY: DR. SUFYAN SAMARA

MIRA BASHAR JAMOUS & TALA HAMAD



CONTENTS



- Introduction
- Implementation
- Hardware Components
- Mobile Application
- Constraints
- Future Work



INTRODUCTION

ChronoClock is an innovative device that integrates multiple features regarding timekeeping and workplace focus and productivity in one device.

ChronoClock features 16 RGB LEDs grouped together as a strip, creating a stunning optical illusion when spinning at high speeds on a DC motor.

This versatile and dynamic project revolutionizes timekeeping and workspace management, offering users a range of features to improve focus, organization, and environmental awareness.



OBJECTIVES

1

FUN OUT OF BOUNDS

get things done while still having something fun to look at

2

TIME MANAGEMENT

Allows users to switch between analog and digital clock modes, ensuring their preferred style.

3

ENSURE COMFORT

Monitoring air quality, displaying real-time CO2, temperature, and humidity levels to keep your workspace healthy and comfortable.

IMPLEMENTATION



FEATURES

ANALOG CLOCK AIR QUALITY

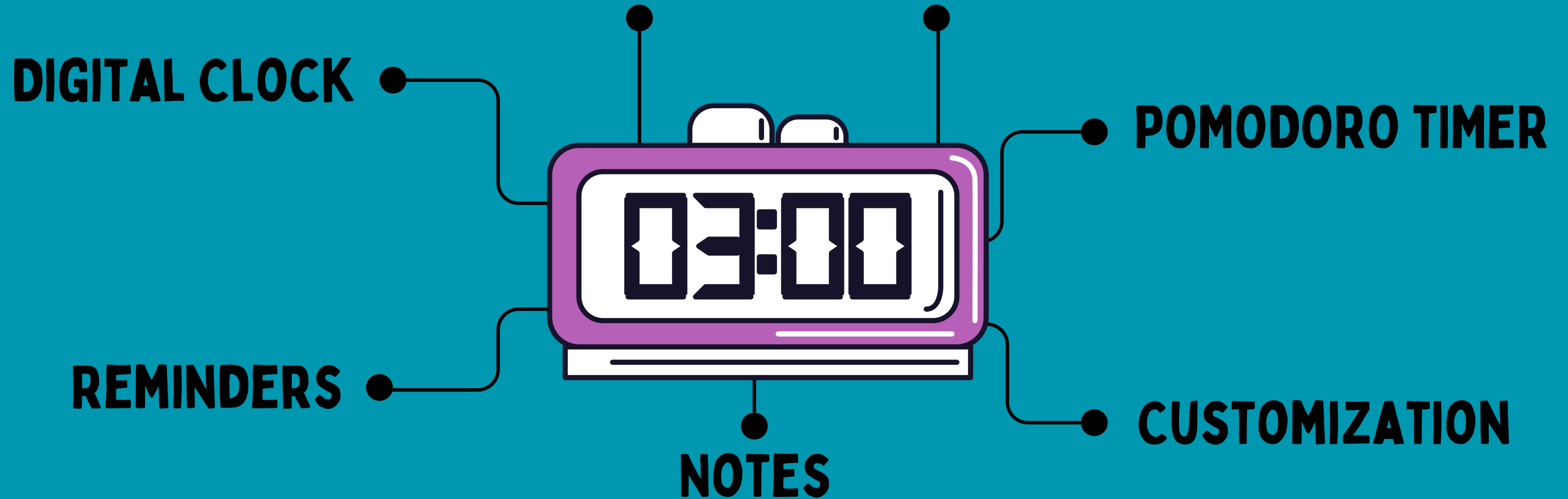
DIGITAL CLOCK

POMODORO TIMER

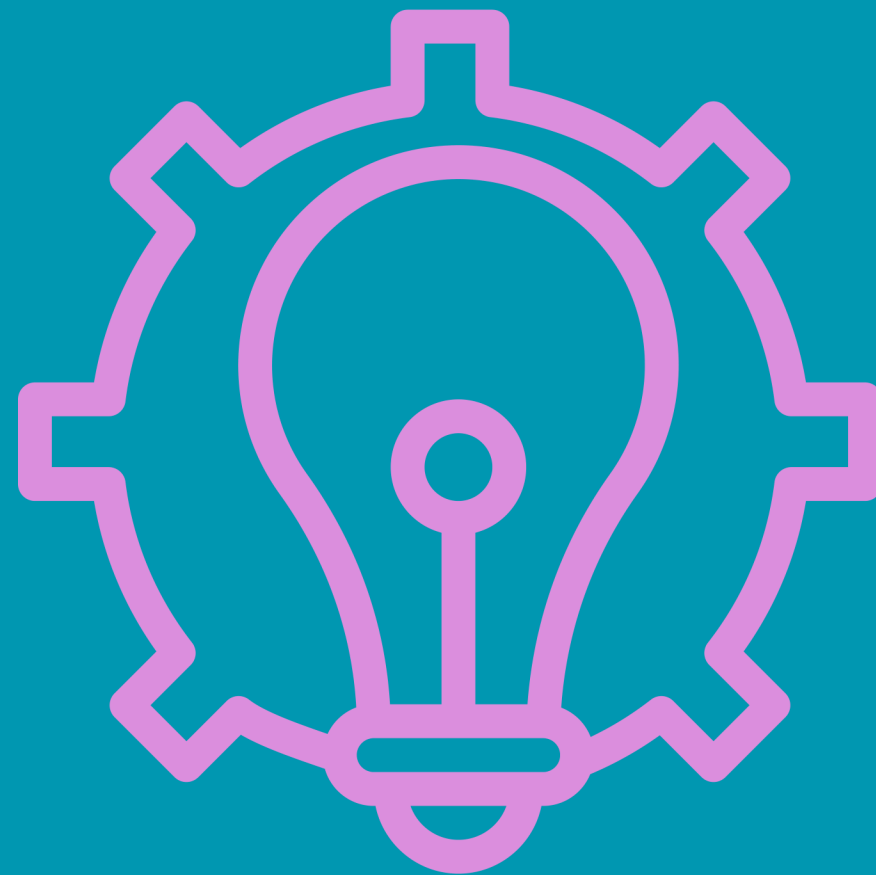
REMINDERS

CUSTOMIZATION

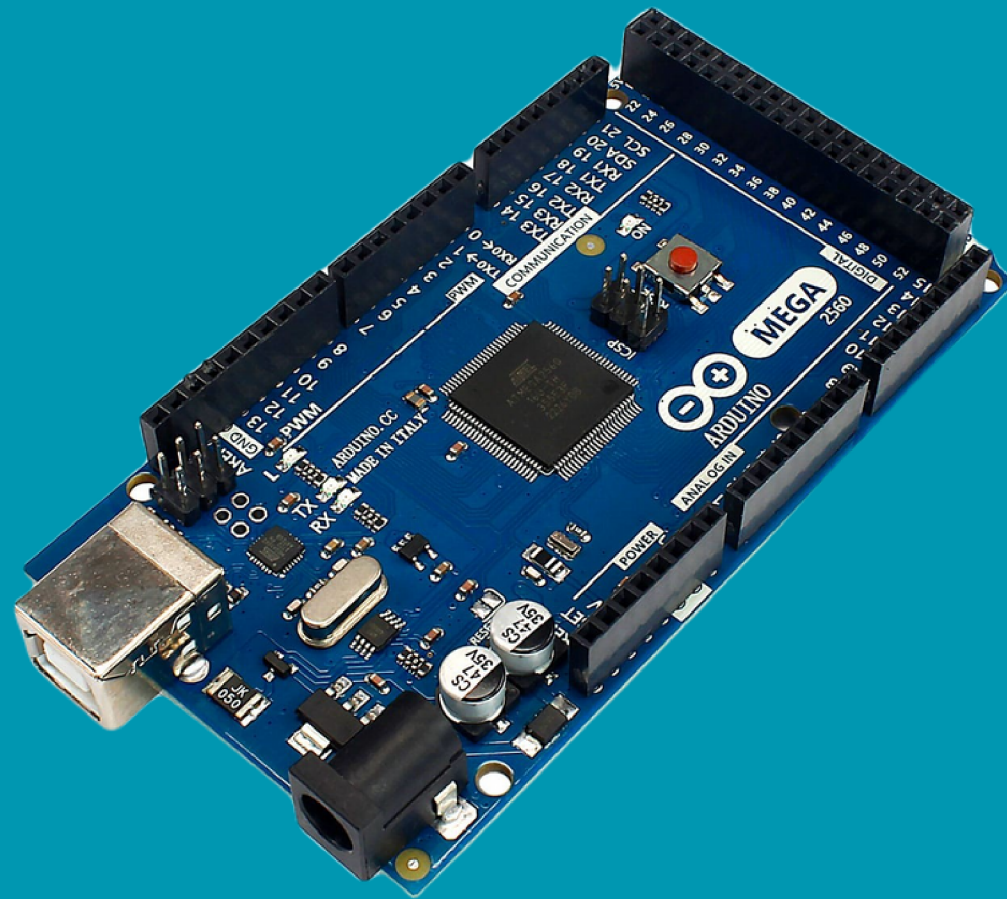
NOTES



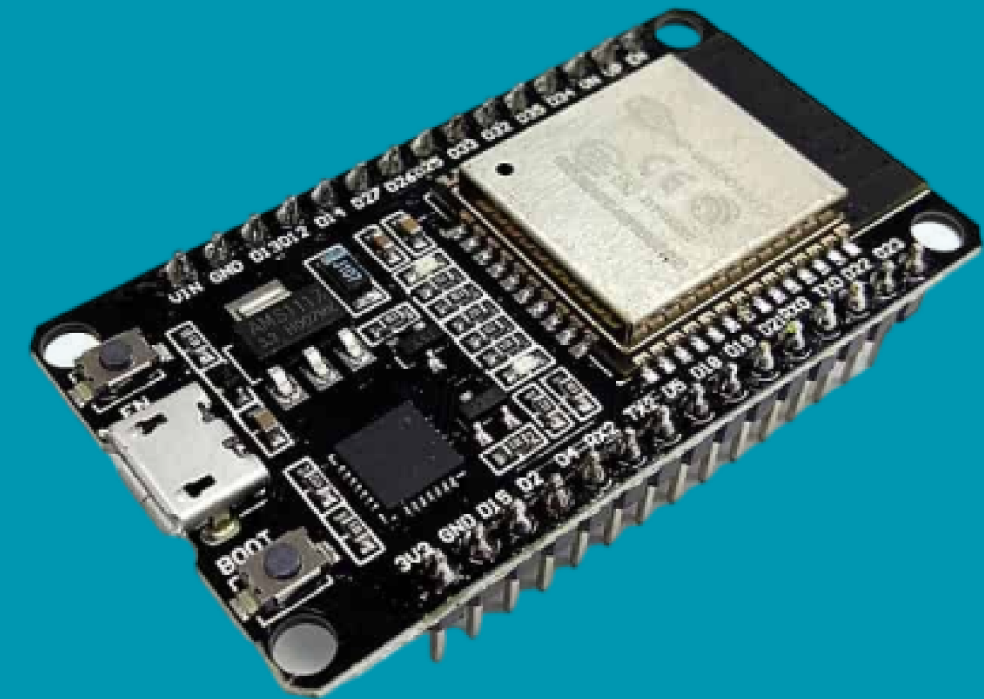
HARDWARE COMPONENTS



MICROCONTROLLERS

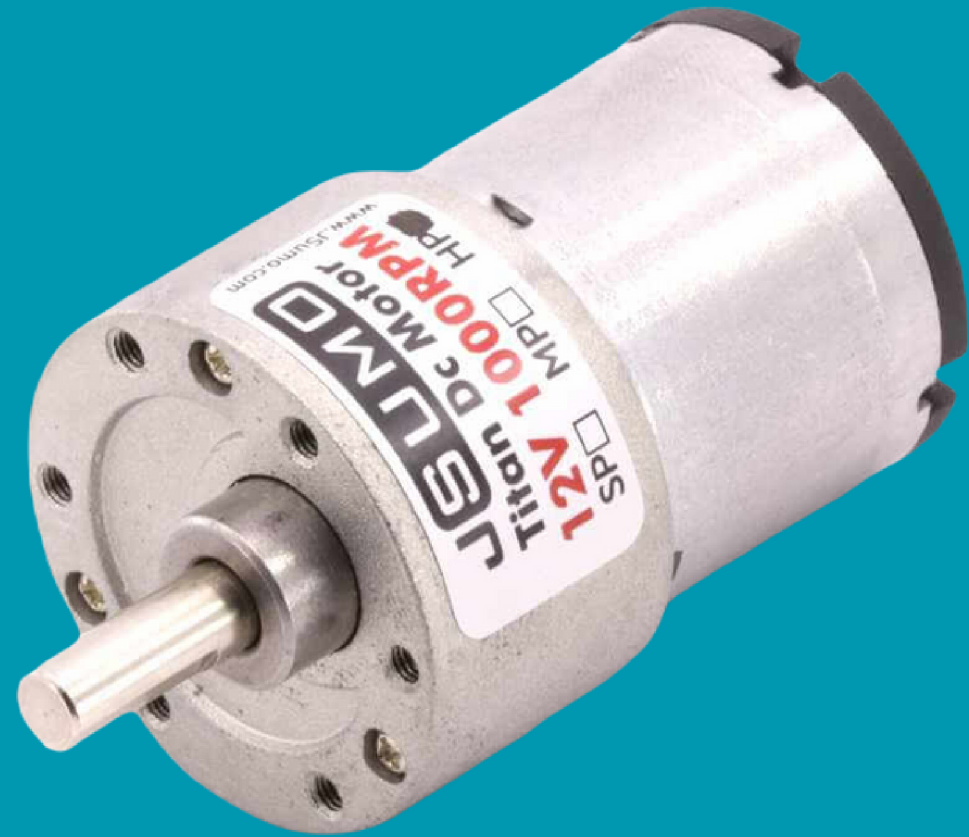


Arduino Mega 2560



ESP-WROOM-32

MOTORS

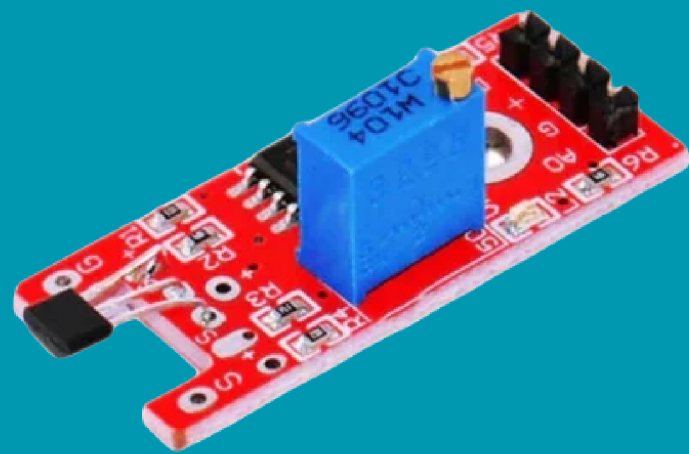


DC Motor

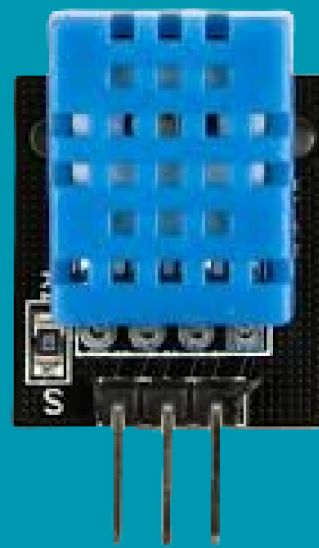


Coupler

SENSORS



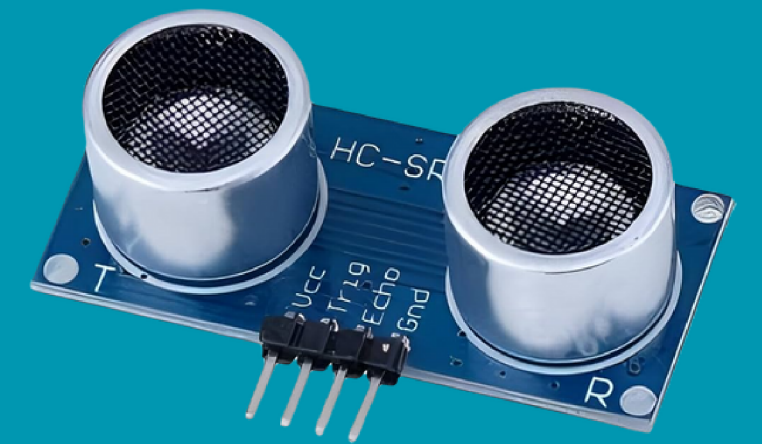
Hall Magnetic



DHT11



MG811



Ultrasonic

OTHER COMPONENTS



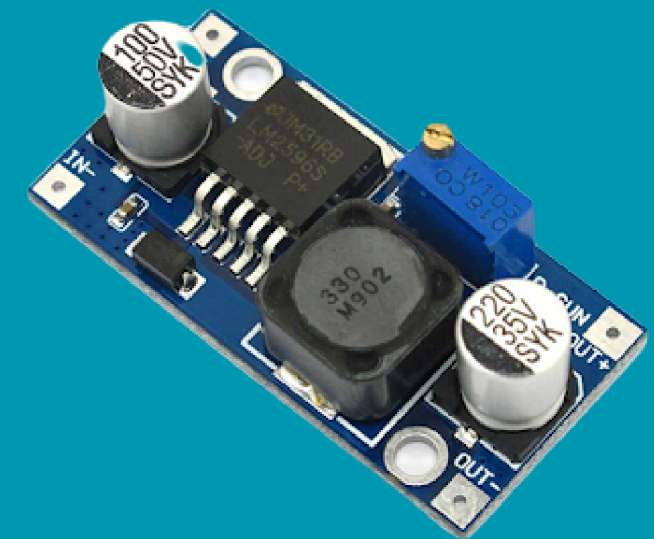
Rechargeable Lithium
Batteries



Battery Holder



Toggle Switch



Buck Converter

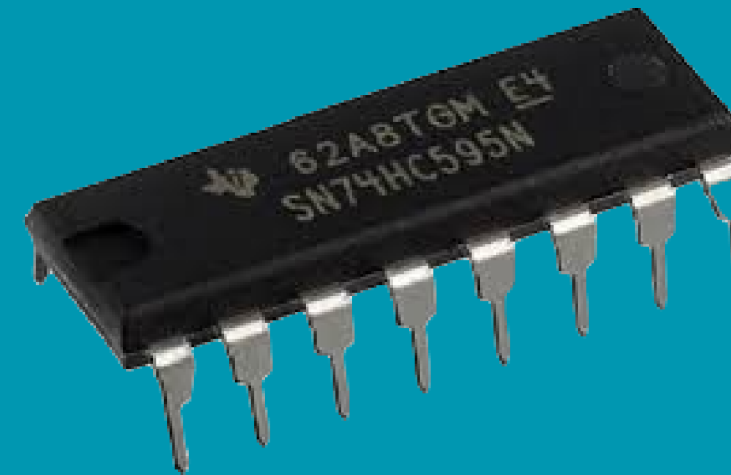
OTHER COMPONENTS



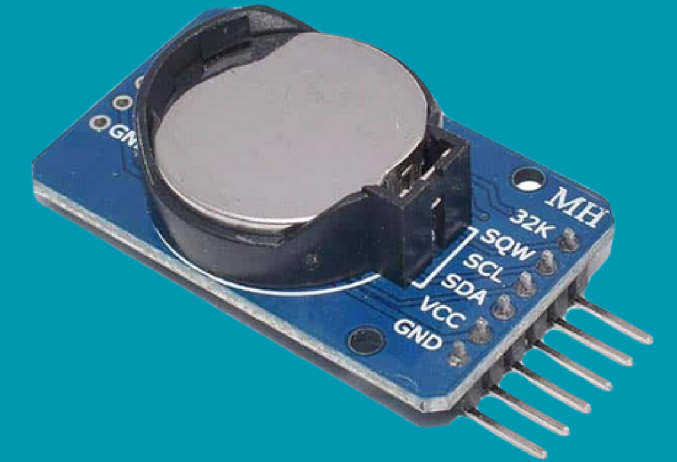
RGB LEDs



Resistors



Shift Registers

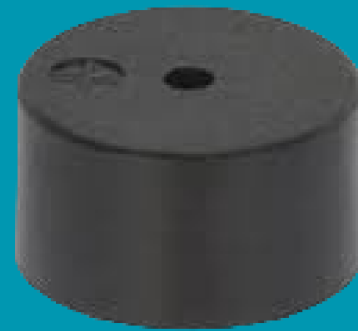


RTC

OTHER COMPONENTS



Keypad

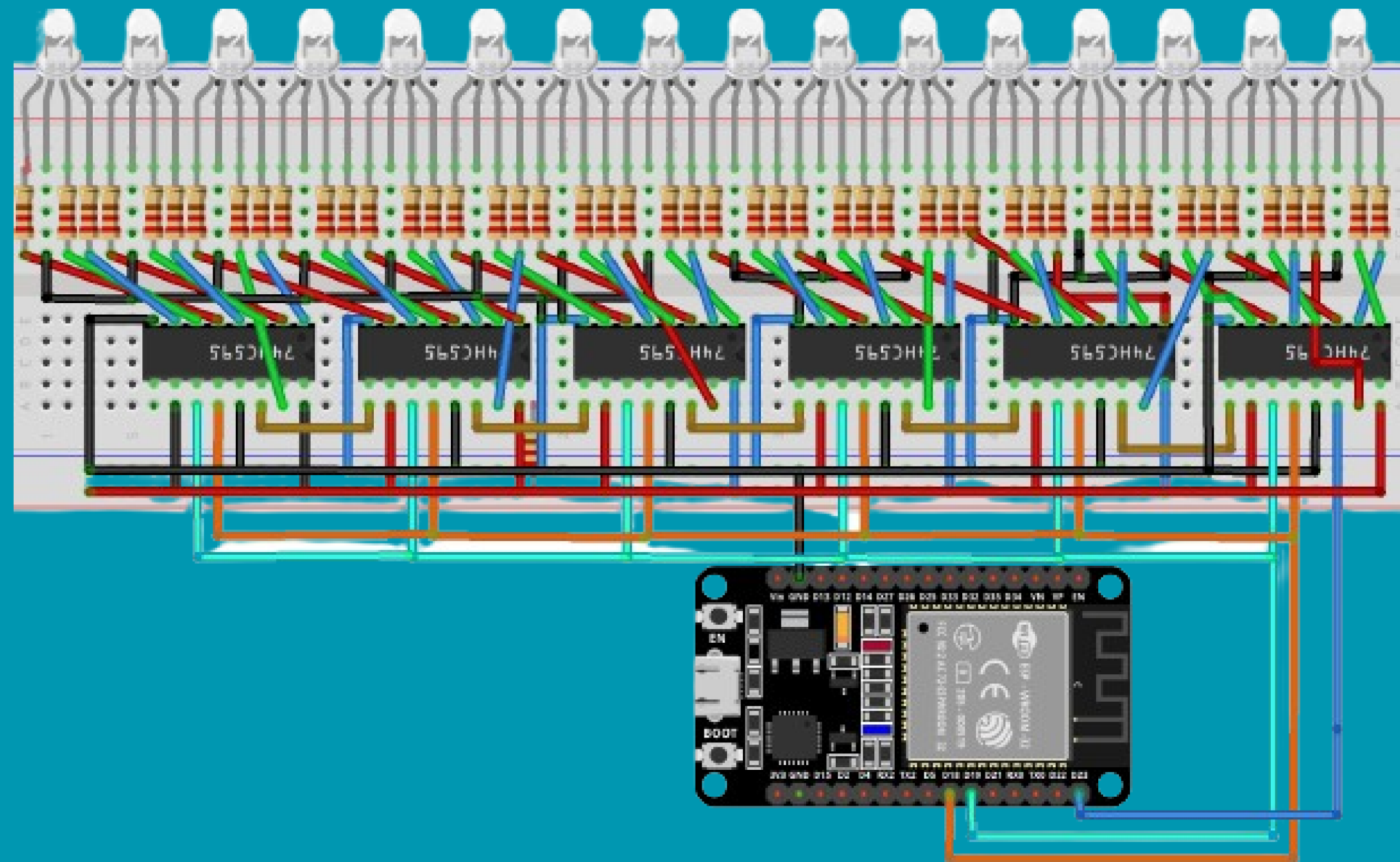


Piezo Buzzer



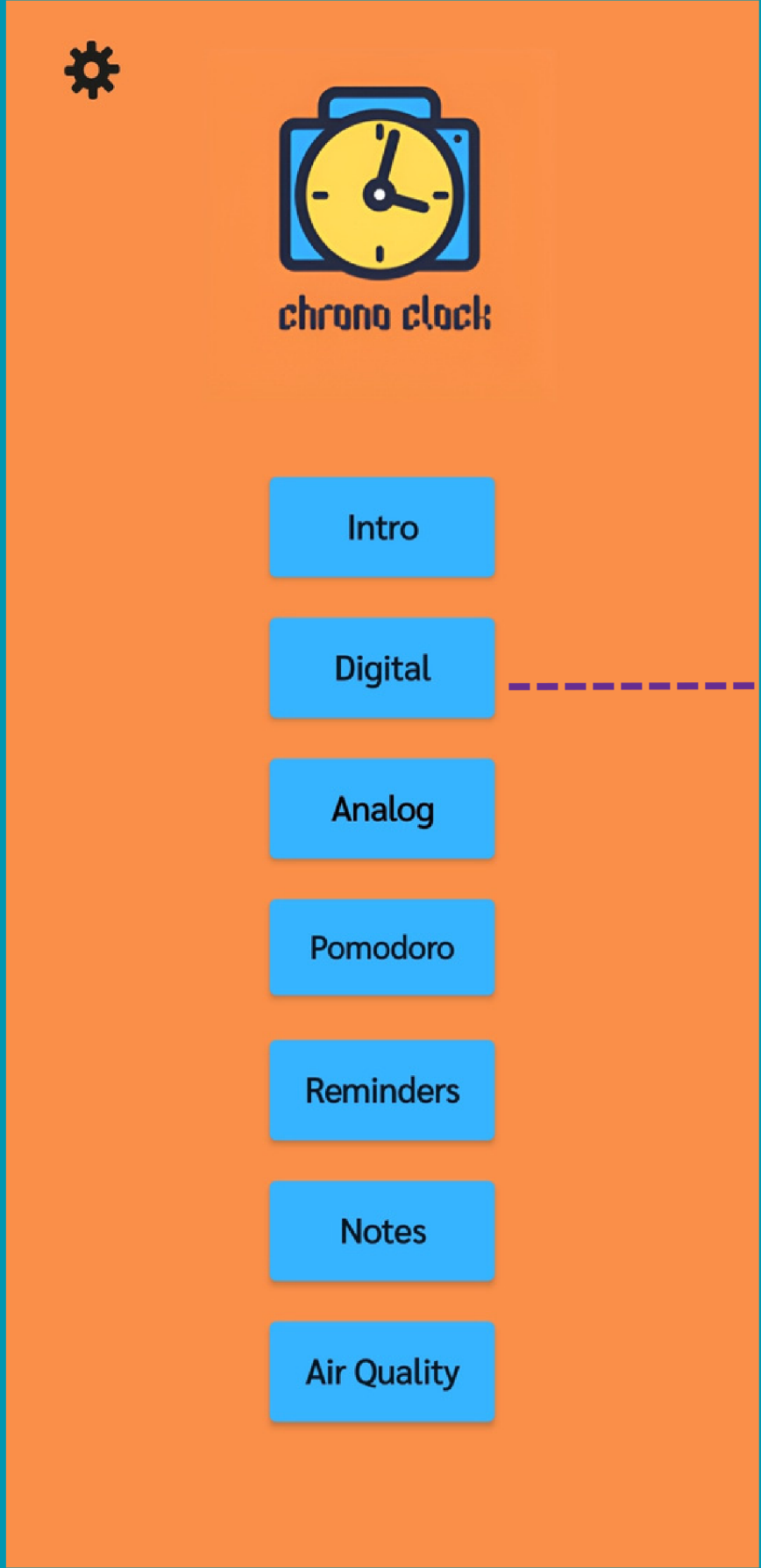
DC Power Supply

BOARD DESIGN

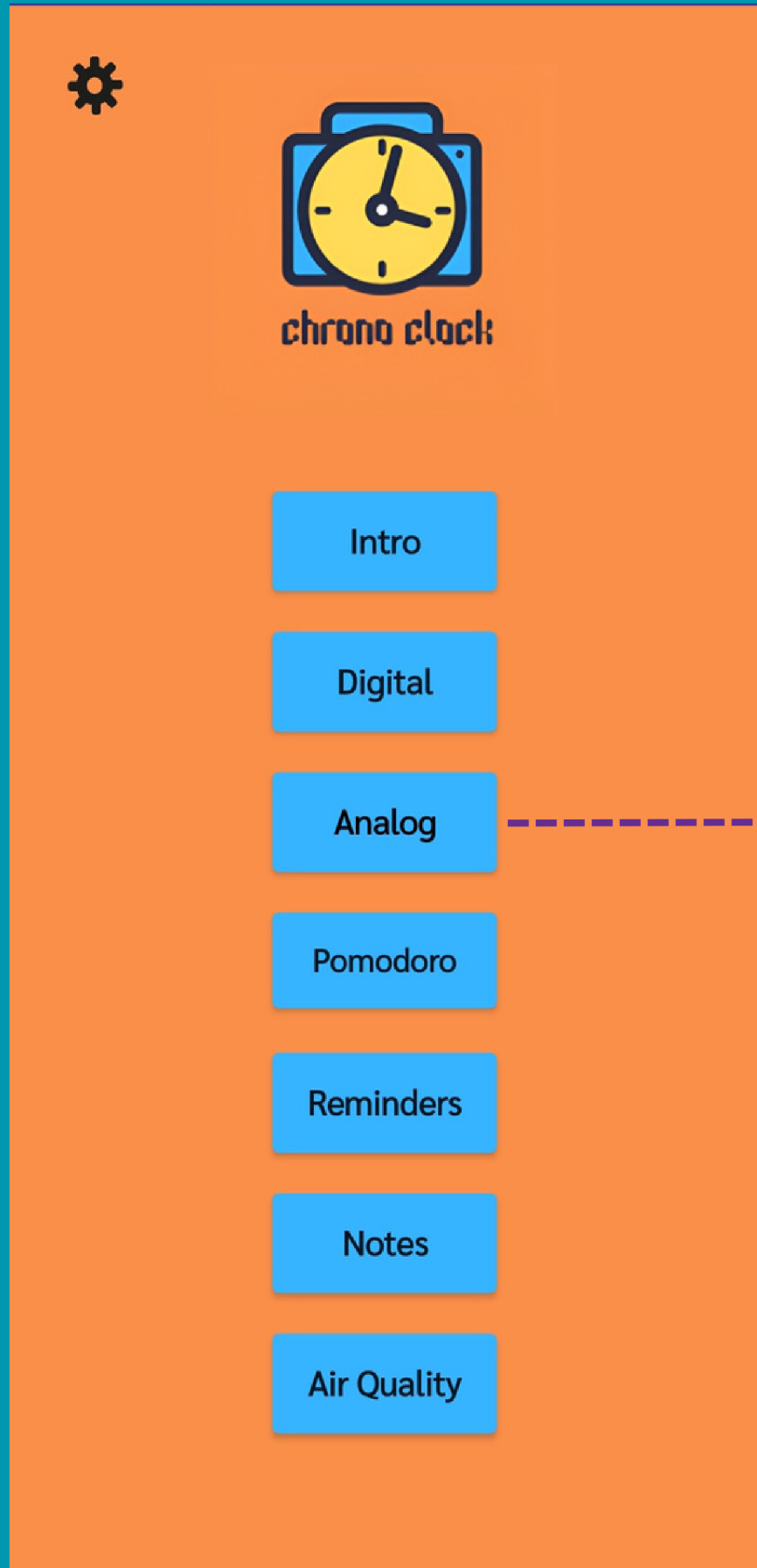


MOBILE APPLICATION





Digital Mode



Analog Mode



chrono clock

Intro

Digital

Analog

Pomodoro

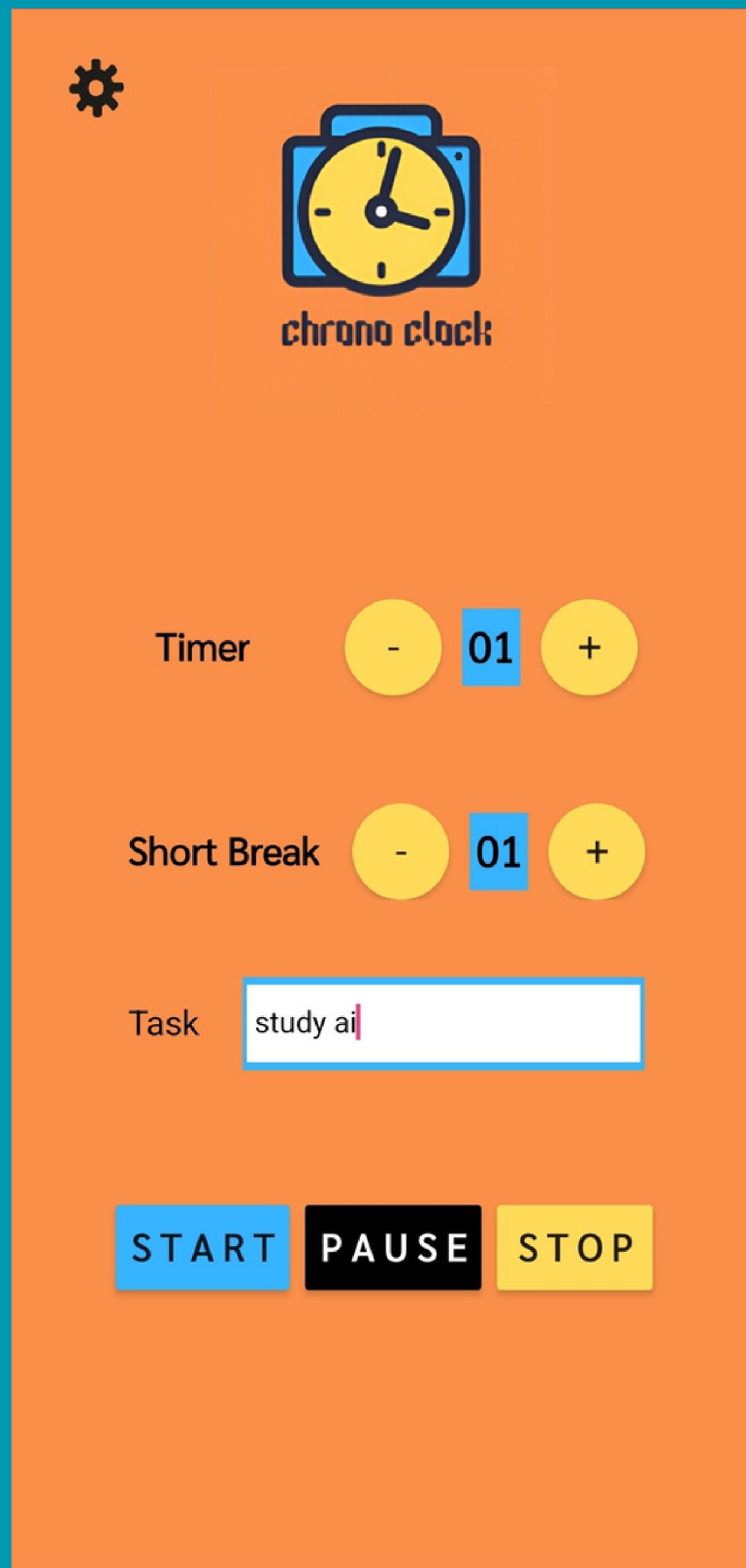
Reminders

Notes

Air Quality

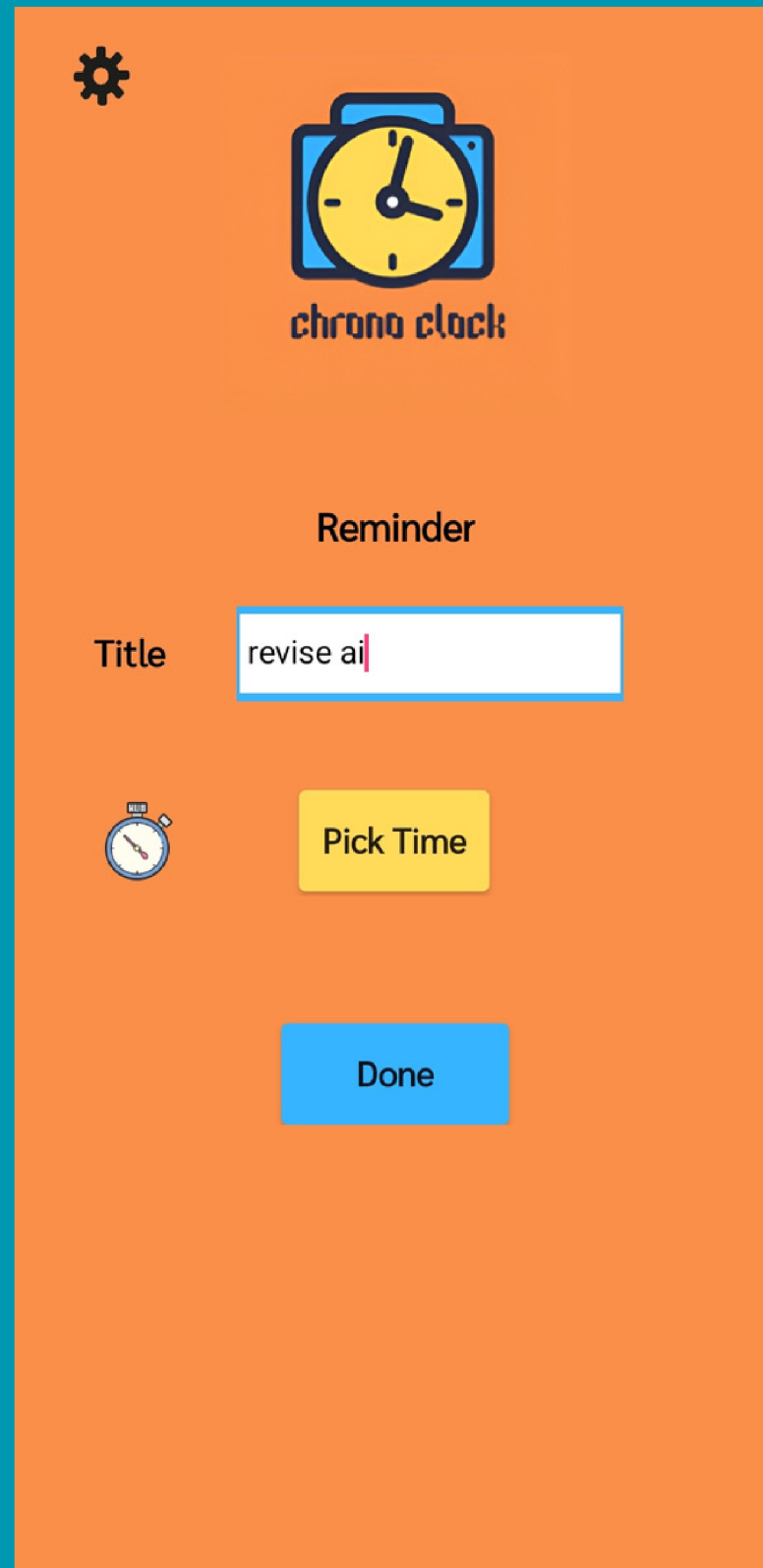


Air Quality Mode



Pomodoro Mode






Reminder Mode



⚙️



chrono clock

Notes

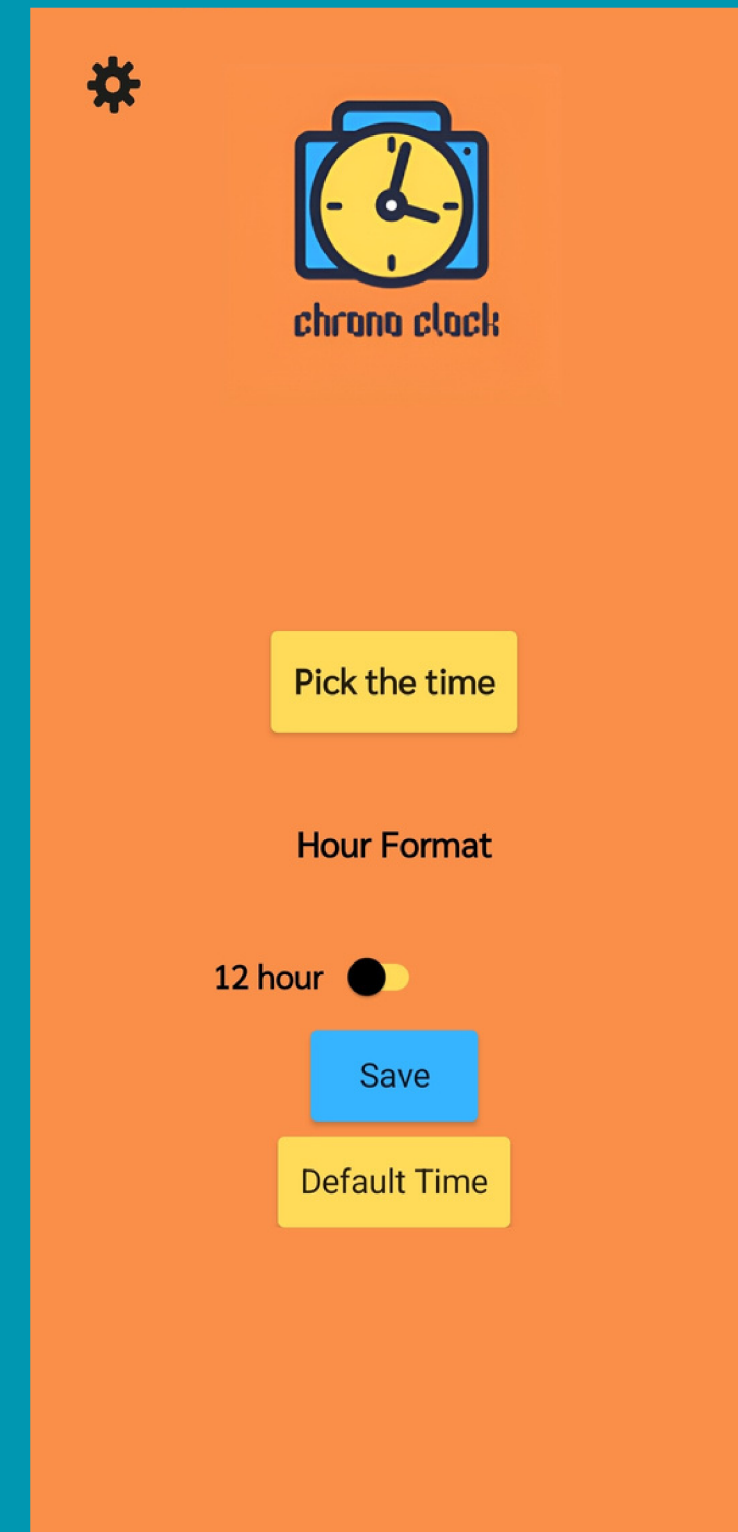
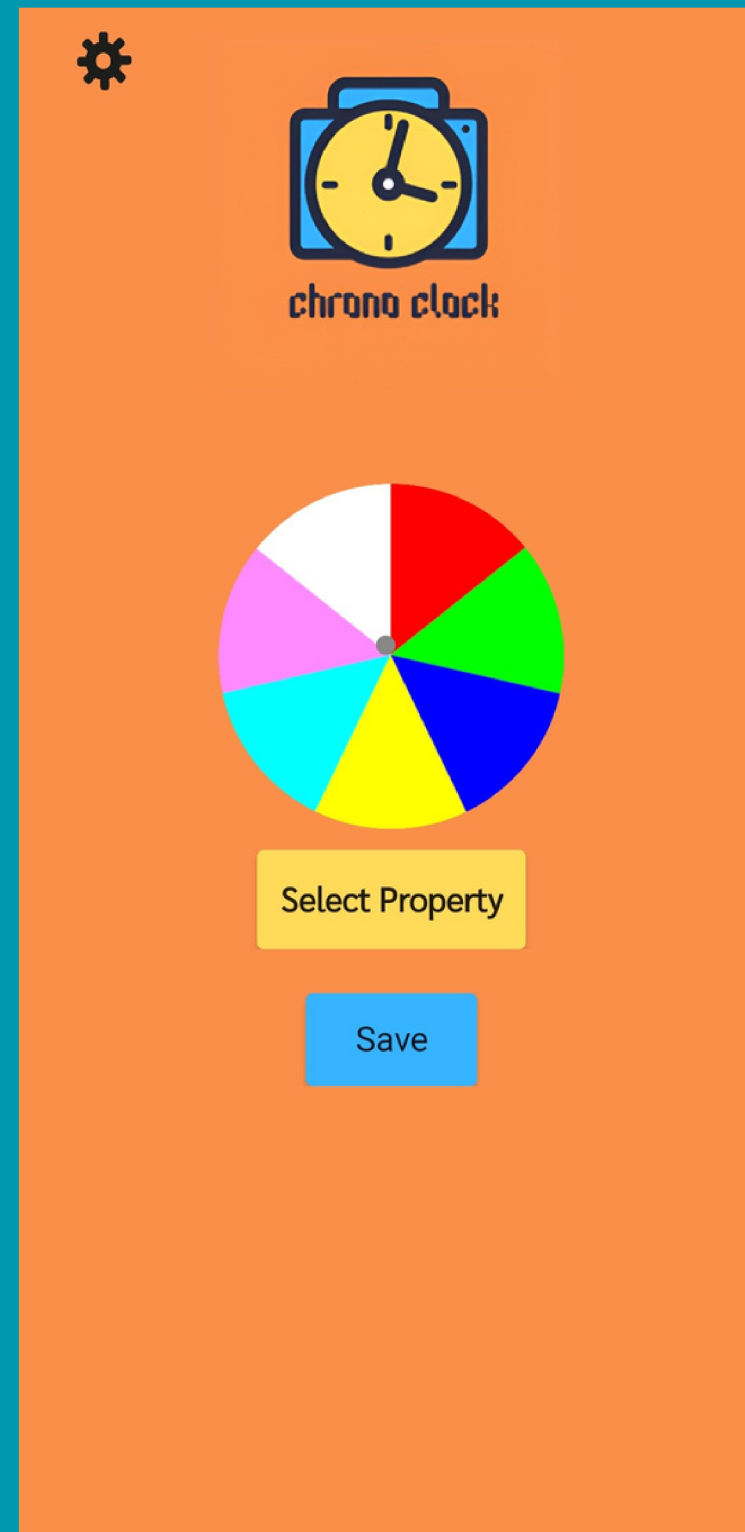
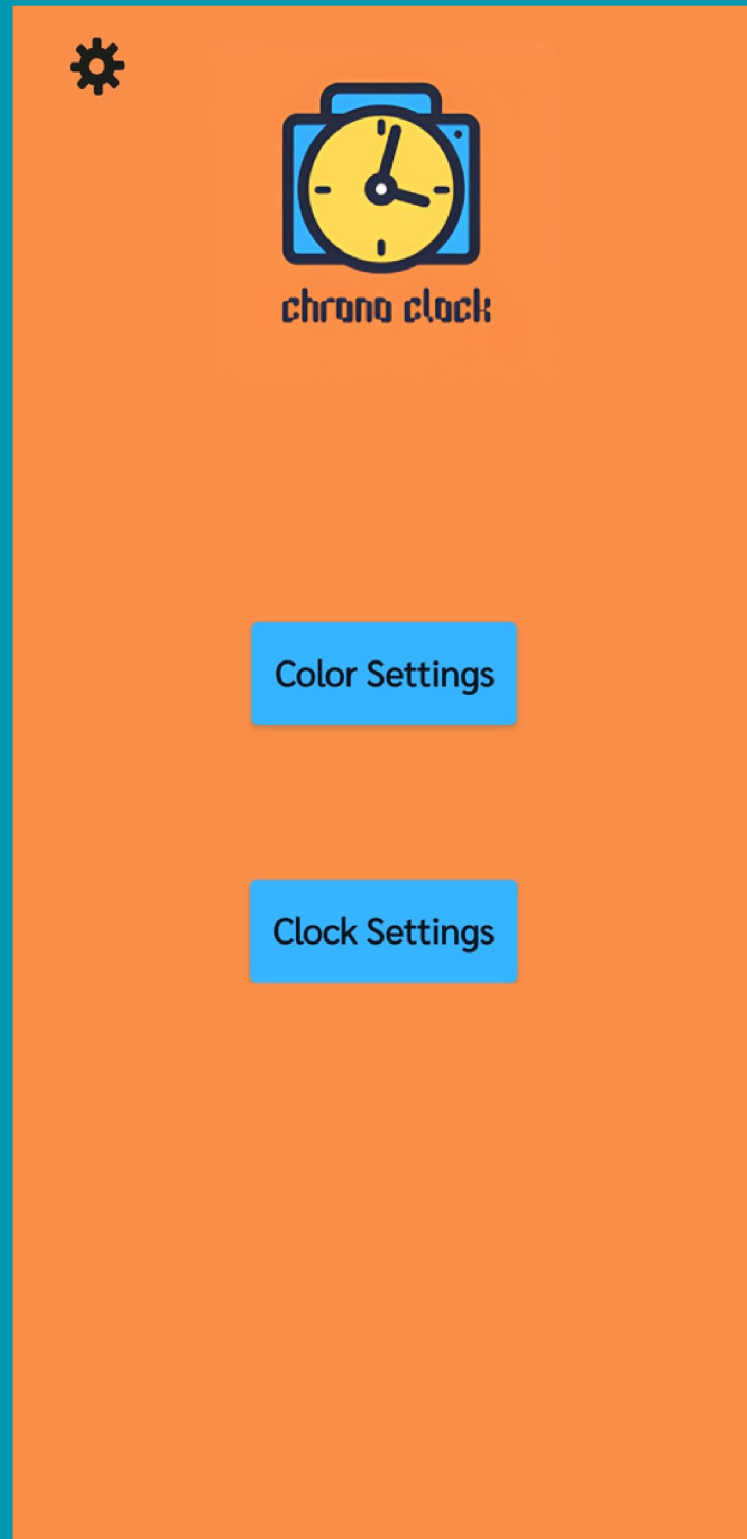
Title

Done

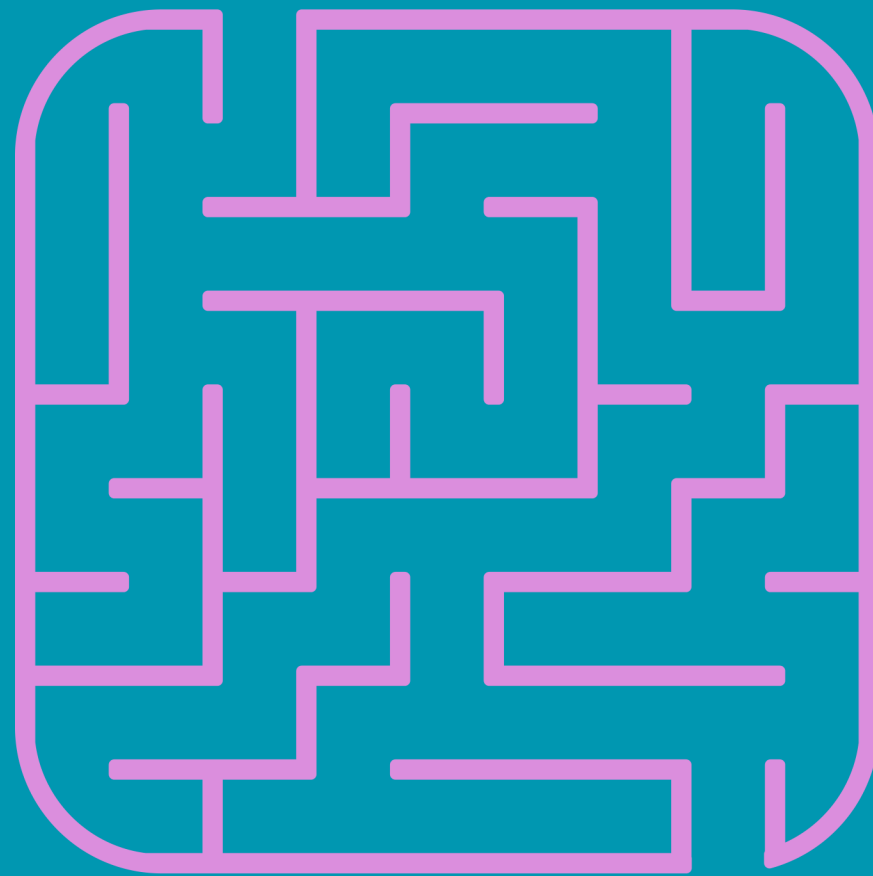
Notes Mode



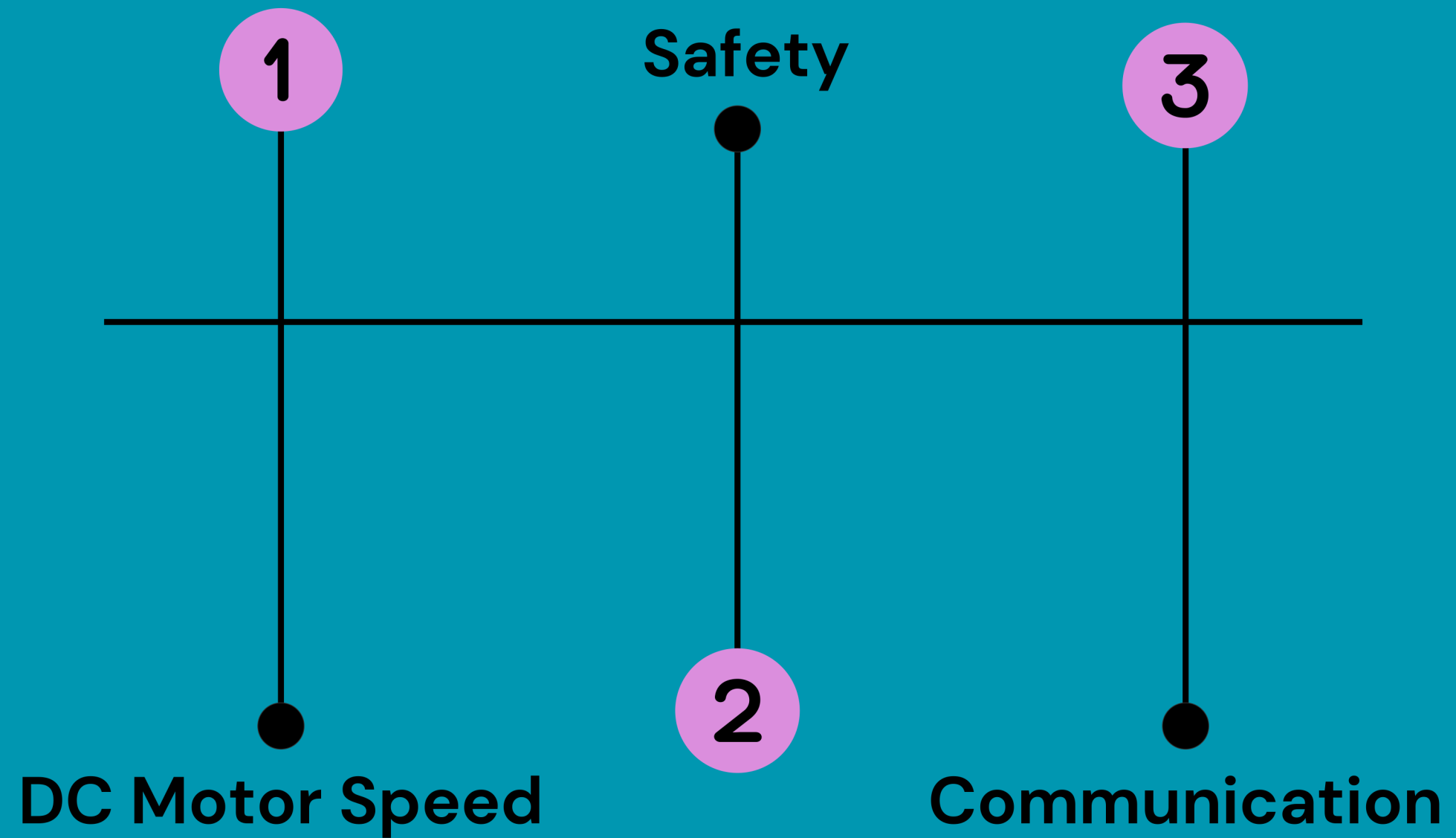
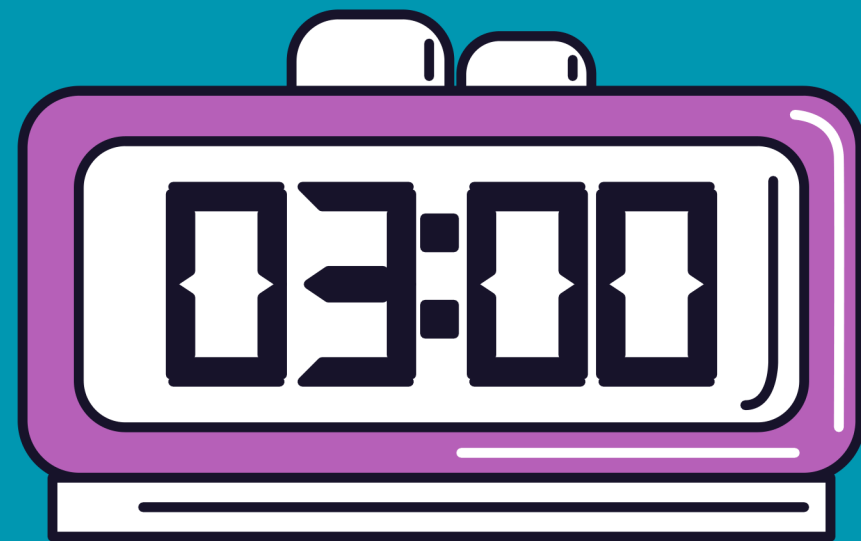
SETTINGS SCREENS



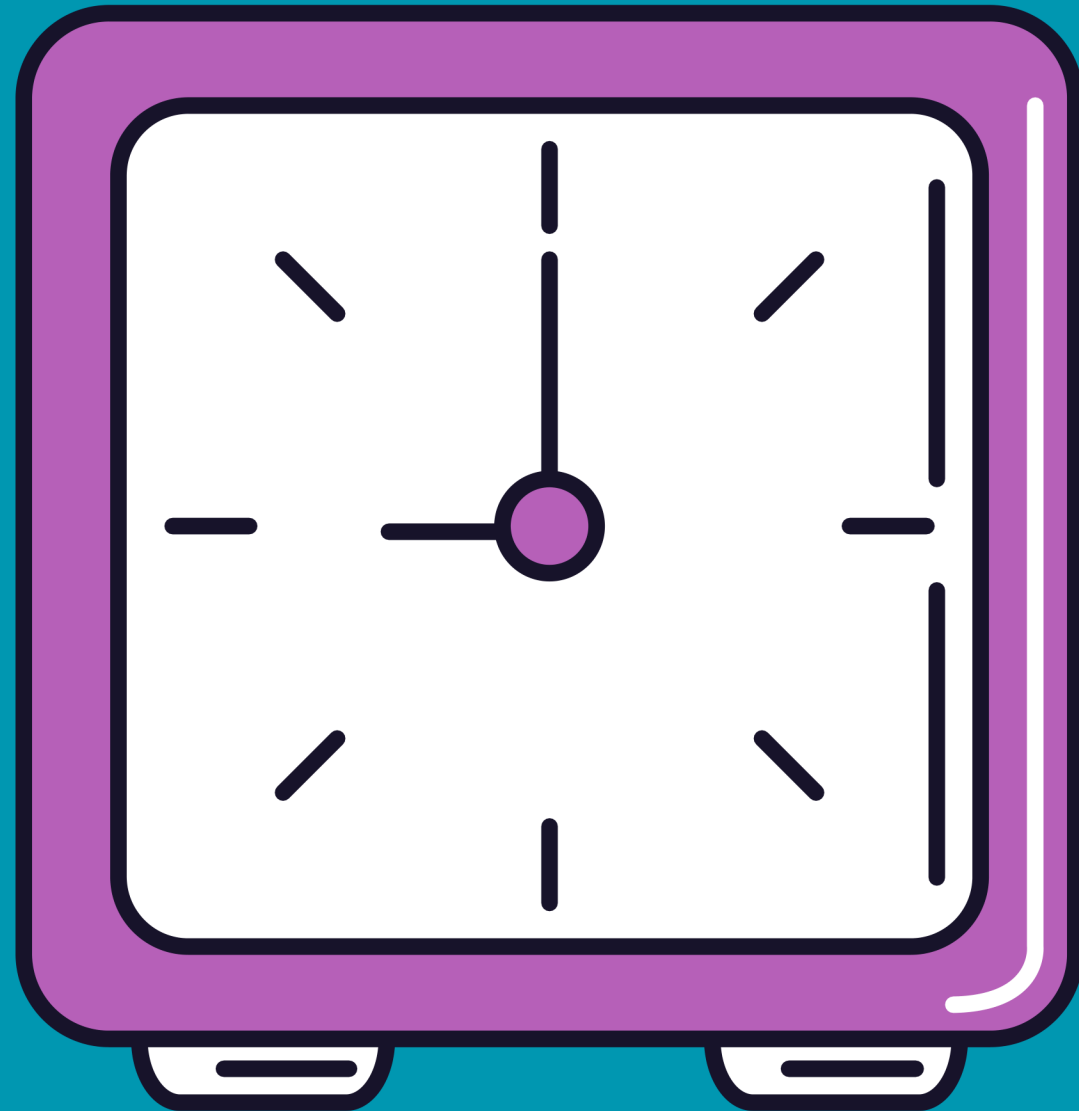
CONSTRAINTS



CONSTRAINTS



FUTURE WORK



- Increasing the speed of the DC motor.
- Integrating an OLED screen to display the battery percentage.
- Integrating voice control.
- Display images.
- Creating a 3D display.

The background is a solid teal color. There are two large, semi-transparent pink circles. One is in the top right corner, and the other is in the bottom left corner. The text is centered in the middle of the page.

THANKS!

ANY QUESTIONS?