



Cover page

Project title: ChronoClock

Academic Year: 2023 - 2024

Group Members: Tala Hamad

Department Name: Computer Engineering

Mira Bashar Jamous

Project Type: Hardware

Supervisor Name: Dr. Sufyan Samara

Format:

- Single space, Times New Roman.
- 12 pt,
- Maximum 1 page.

Abstract Body:

Items must be provided in the Abstract:

- Why do you think this project is important? Please explain the significance of this Project in brief.
- In your point of view what are the important aspects that should be covered in the project?
- Objective(s): In your view, please explain the main objectives of the project.
- Methodology: Give a brief outline of the application development process.
- Had this project been done before? Are there any similar applications available today?
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- **Note:** Please deliver this abstract early to ensure that your Project has been approved by the department's projects committee. **Registration will not be done without this approval.**



Project's Abstract:

Workplace wellness and productivity are essential in modern living. ChronoClock is a Smart Propeller Clock designed to improve these areas by integrating advanced hardware and innovative features.

ChronoClock uses a high-speed DC motor to spin 16 RGB LEDs in a propeller configuration, creating a unique and engaging time display. It includes a Real-Time Clock (RTC) module for precise timekeeping. The clock also has sensors to monitor CO2 levels, temperature, and humidity, providing real-time information about air quality. Motion sensors track inactivity and encourage regular breaks using the Pomodoro Technique to promote healthier focusing habits. A keypad and a mobile application allow users to customize the clock's settings and appearance.

ChronoClock enhances user interaction with its dynamic time display and real-time environmental monitoring. It helps maintain a healthy workspace by tracking air quality. The reminder and break features support continuous productivity and well-being. The keypad and mobile app enable users to easily personalize settings and features.

ChronoClock is a significant improvement for modern living or workplaces, with advanced hardware with user-friendly design combined. This project shows how integrating wellness and productivity features into everyday tools can improve environments, making them healthier and more efficient.