PROJECT OVERVIEW

Simple Heart Rate Monitor for Athletes

A simple heart rate monitor designed for athletes should prioritize functionality, comfort, connectivity, durability, and affordability to support athletes in monitoring their heart rate during workouts and training sessions. The device will provide real-time heart rate data, allowing athletes to adjust their training intensity accordingly. This technological solution aims to enhance training effectiveness while preventing overexertion, thus promoting safer workout environments.

Members :-

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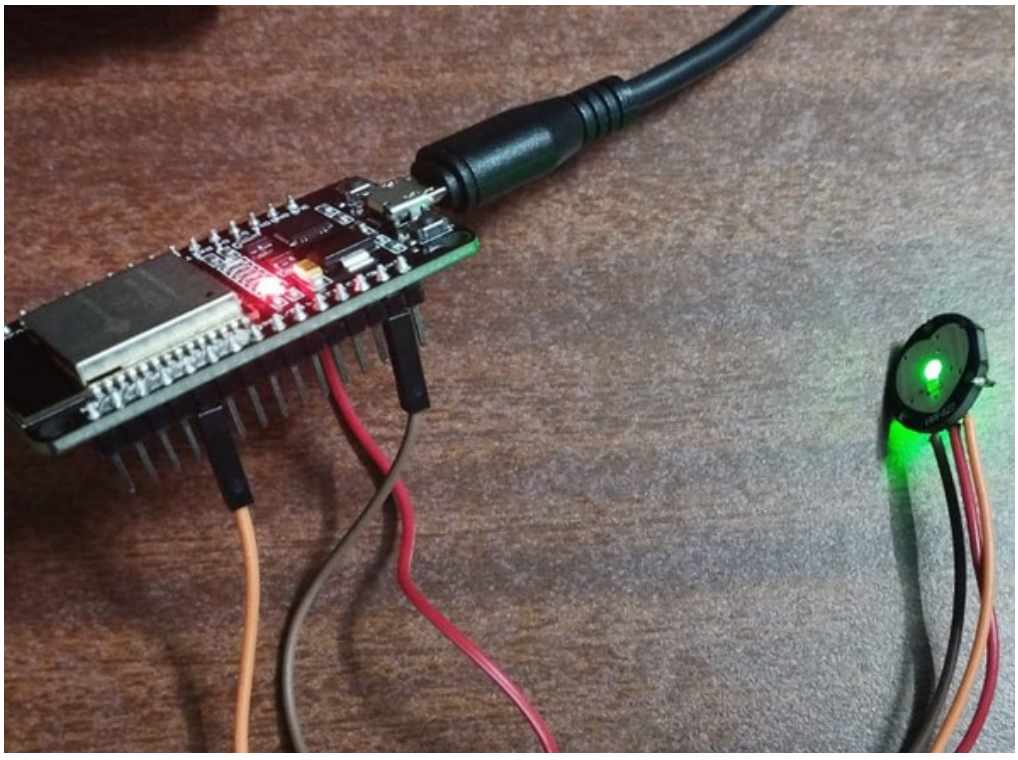

Objectives

1. **Product Design and Development:** Research, design, and develop a simple yet highly effective heart rate monitor that meets the specific needs of athletes, focusing on accuracy, comfort, and durability.\
2. **Real-Time Data Processing:-** Develop software that accurately processes and displays heart rate data in real-time on a wearable device.
3. **Durability and Versatility:-** Ensure the heart rate monitor has a long battery life and is water-resistant, enabling athletes to use it during extended training sessions and in various environmental conditions.

Goals

1. **Enhanced Training Safety:-** Continuous heart rate monitoring empowers athletes to maintain optimal exertion levels, mitigating health risks associated with overexertion and promoting safer and more effective training sessions.
2. **Instant Heart Rate Feedback:-** By leveraging a heart rate sensor integrated with an STM microcontroller, athletes receive immediate heart rate feedback during workouts, aiding them in sustaining an optimal training intensity.

Example

```
const int maximum_workout = 195
const int anerobic_training = 156
const int cardio_training = 137
const int fat_burn = 117
const int warm_up = 98
```

Summary

The project aims to develop a simple heart rate monitor tailored for athletes, focusing on functionality, comfort, connectivity, durability, affordability, and accessibility. The ultimate goals are to create a monitoring system that delivers precise data, enhances training safety, offers real-time feedback, promotes athlete well-being, and supports optimal training intensity.