Contactless Temperature Sensor-Temp 5-ECE342-W2022

Russell Owen, Renee Aimba, Kai Roy

I. Introduction

THE non-contact temperature sensor is a system that checks and reports human body temperature without any direct contact. We have employed the use of sensors such as an RFID module and a temperature sensor. The user's temperature is then displayed on an LCD display after being measured and getting an indication of too high or normal via LED color indications.

II. Project Development

Our group approached this project by breaking it down into three parts: Design, Build and Presentation. These parts were broken down further into: Project Conception and Initiation - where we covered the drafting of of Block Checkoff 1 and creating a timeline, Circuit prototyping- where we purposed to identify and purchase all the parts needed for each of our blocks, then go ahead to create a prototype for each block and thereafter put together the whole prototype as circuit, PCB and enclosure design - where we planned to turn the circuit into a schematic, make and test the PCBs then print and test the enclosure. Finally, we put together our final circuit in our final enclosure, tested its functionality and prepared for the Junior Design Expo.

IV. Key Lessons

All the group members in this group learnt a variety of skills to augment the knowledge they already had. We divided the blocks such that each member would get experience in designing a schematic and PCB via a software program they were comfortable with, and get a chance to allow one to work on a part of the project they were interested in and passionate about such as enclosure design, code compilation and writing/project summary. Additionally, we got to learn how to work on a team and most importantly, proper time and project management and organization.

III. Project Timeline