Students (From Left) Kyle Mullins, Noah Lyke, Robert Townsend, Jim Lin

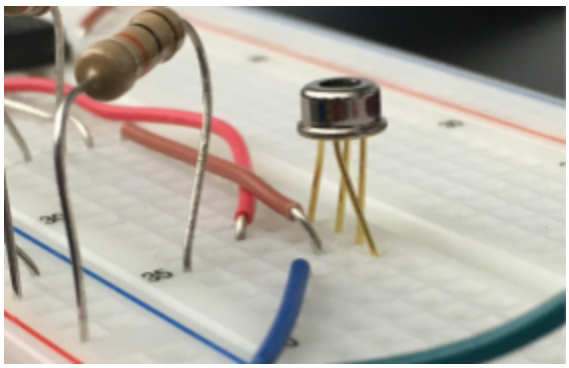
ELECTRICAL AND COMPUTER ENGINEERING

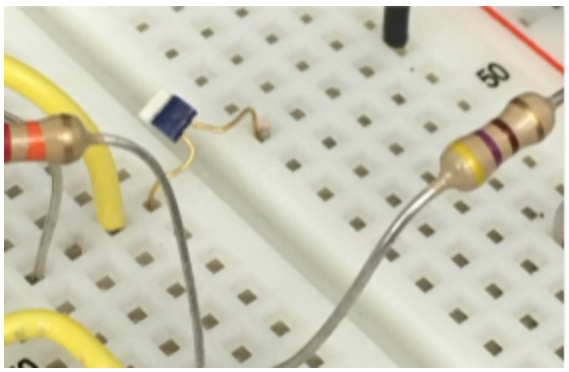
TEAM: 1817

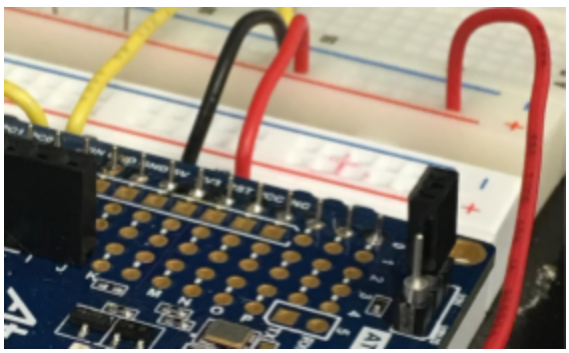
SPONSOR: Hubbell Incorporated

ADVISOR: Necmi Biyikli

Electrical Plug, Connector, and Receptacle Temperature Sensor







Hubbell Incorporated began its journey in the late 1800's when its founder, Harvey Hubbell, developed tooling and equipment to serve the growing demand for new assembly and manufacturing machinery during the industrial revolution. Hubbell Wiring manufactures various connectors and devices, including electrical plugs and receptacles.

Hubbell tasked the team with researching existing temperature sensing technologies and looking to utilize these technologies to design, miniaturize, and optimize a temperature sensing system. The goal is to design a miniature temperature sensing system that can monitor the temperature of multiple objects located near the sensing array. The design is to be flexible and adaptable to various environments and measurement targets. The system must be able to have a form factor that is flexible for various implementations. There must be data interpretation built into the design to take information input from multiple temperature sensors, perform any necessary computation, and output the data to the user. Overall, the project is to design and optimize a temperature sensing system with onboard data interpretation for varied implementation.