

## FP Engineering Requirements

- **Customer Requirement: The system should be accurate.**
  - Engineering Requirement: The temperature readings should be within +/- 1 degrees Fahrenheit of a standard thermometer.
- **Customer Requirement: The system should alert the user when they have a fever.**
  - Engineering Requirement: The system should indicate via sound and a display when the recorded user temperature is greater than or equal to 100.4 degrees Fahrenheit.
- **Customer Requirement: The system should require no contact to function.**
  - Engineering Requirement: The system should be controllable by the user from a distance of 1 cm or greater with no contact.
- **Customer Requirement: The system should log user information.**
  - Engineering Requirement: The system should automatically record all users and their temperature for the last 24 hours.
- **Customer Requirement: The system should be intuitive.**
  - Engineering Requirement: The system should be usable with no outside instruction for at least 2 people other than the project designers.
- **Additional Requirements: The system should be portable.**
  - Engineering Requirement: The system should weigh less than 5 lbs and fit in a space no bigger than 1x1 feet.
- **Additional Requirements: The system should have a sleep mode.**
  - Engineering Requirement: The system should power itself off after at least 5 minutes of inactivity (no user interaction).