The non-contact temperature sensor is an accurate system which is intended to perform the following tasks:

❖ Detect human presence and movement.
❖ Audible voice announcement alerting the user providing the instructions, and temperature measurement results.
❖ Capture user body temperature, and verify it exceeds 100.4°F with ± 1°F accuracy.
❖ Display the ambient temperature, user count, user body temperature with pass/fail result criteria.
❖ Record the user data with timestamp in a SD storage in csv/txt format.
Usage:

When a user pass by this device, it detects the human presence and alert the user with the speaker announcement 1 followed by speaker announcement 2. Once the user stand by the target location which is 1cm from the thermal IR sensor, the user temperature is captured and recorded. Based on the user body temperature the speaker announcement 3 or 4 is trigger.

Speaker Announcements:

Speaker Announcement 1: “Person detected.”
Speaker Announcement 2: “Please stand at the target location for body temperature scan.”
Speaker Announcement 3: “Scan complete. You have passed the test, access granted.”
Speaker Announcement 4: “Scan complete. You have failed the test, access denied.”

Available Screen and User Options

Home Screen

The home screen shows the banner, ambient, target, count, and result. This also includes 4 buttons as follows:

“<” Scroll Left During Logs Screen.
“>” Scroll Right During Logs Screen.
“LOGS” Display the past logs.
“EXIT” Takes back to home screen always.
USER GUIDE

Pass Screen
The pass screen shows the banner, ambient, target, count, and result as “Pass” in green color if target temperature is <100.4 °F.

Fail Screen
The failure screen shows the banner, ambient, target, count, and result as “Fail” in red color if target temperature is >100.4 °F.

Log History Retrieval Screen
- When “LOGS” button is pressed, it shows the banner and past logs in the format as:
  - Time Stamp in mS: XXXXX  Count=XX  Target Temp: XX °C
- If user did not exit, it automatically goes back to home screen. During this screen, motion sensing loop will not work.
Log History SD Card storage verification.
Verified all the data logs stored in a csv format in the SD card. Attached the sample data logs collected in the SD storage.

logs.csv