A picture containing icon

Description automatically generated

Known Bugs & Unfinished Features

**For Cloud-Connected Toaster Oven**

**Document Version:** 1.0

**Date:** 05/18/2022

**Cloud**

Unfinished Features

* Report State (reportState.js): The initial code implementation was completed, however, the functionality was never tested. In its current state, commands can be sent from a Google Assistant to Firebase, but any data sent from a device to Firebase may not update the Homegraph API accordingly. This also means that the Google Home app and the Google Assistant may also have outdated information if the user updated their device manually.
* Request Sync (requestSync.js): The initial code implementation was completed, however, the functionality was never tested. In its current state, any new devices added or removed to a user’s linked account may not update the Homegraph API accordingly. This means that the user may have to unlink and relink their account before any changes in their owned devices (i.e., new traits or new devices) are updated on their Google Assistant and Homegraph.
* DISCONNECT Intent (fulfillment.js): Currently, the onDisconnect function deletes the user from the users Firestore database. While this does work, there may be more elegant solutions that both preserve user data and unlink the user’s account from the Google Assistant.

**Embedded**

Unfinished Features

* Wi-Fi State Machine: The code for the Wi-Fi state machine, which manages the current connection status of the device, was started, but was never integrated into the final device.
* NTC Temperature Table: The current temperature table being used relies on ADC values that are produced when the Nuvoton board is plugged into a computer. The board gives different ADC readings when it’s not plugged into a computer, so a new temperature table with these values is desired.
* Quadratures: Right now, the middle quadrature adjusts the time and the bottom quadrature adjusts the temperature. The functionality of these quadratures should be switched.
* Pin Overlap: Right now, one of the UART connections and one of the quadratures share the same pin (pin 31). This should probably be changed.

Known Bugs:

* MQTT connection will fail after a few seconds if the RX cable of the ESP32 is plugged in. This can be solved by unplugging the RX cable from the ESP32 until it connects to IOT core.

**App**

Known Bugs

* After getting a new state, it may override the changes the user makes to the view if they make changes to the time, temp, or function, immediately after submitting changes.
* JSON Response from firebase not parsed if retrieved as internallinkedhashmap, must be as Map<String, dynamic>.

Unfinished Features

* Recipes: The ability to create and set recipes was started, however the functionality is not included in the current version of the app.
* Individual Function Limits: some functions will require a temperature limit in accordance with the options on the physical toaster oven.
* Push notification: the settings have a position for the options of enabling push notifications.
* Tap-to-update: the ability to click text to open an editor (for temp or time).