BLE Comms Specification

June 15 2023
V1.0

Overview

The main board needs to communicate with the App board to take in new commands, and to notify the App of the current tint level. This communication will occur over Bluetooth Low Energy (BLE)

- Battery Service - Standard BLE service
  - Reports the battery as a % of full
- Tynt Control Service : 1523
  - Read/Writes in a way that enables basic control and feedback of the device
- Tynt Sensor Service : 1623
  - Read and Notification only
  - Sends sensor data back from the device

Tynt Control Service

Service UUID : 1523 (00001523-1212-EFDE-1523-785FEABCD123)

Characteristic	Size (Bytes)	Units	Characteristic #	Read, Write, Notify
State of Tint %	1	Percentage Points	1524	Read Write Notify
Goal State of Tint %	2	mV	1525	Read Write Notify
Drive State	1	0 = Idle 1 = Tinting 2 = Bleaching	1526	Read Notify
Auto Mode	1	0 = Manual Mode 1 = Privacy Mode	1527	Read Write Notify

Tynt Sensor Service

Service UUID : 1623

Characteristic	Size (Bytes)	Units	Characteristic #	Read, Write, Notify
Temperature	2	0.1C (Signed)	1624	Read Notify
Humidity	1	Percent	1625	Read Notify
Ambient Light	12 (3 sets of 4)	.01 Lux	1626	Read Notify
Accelerometer	1	Alerts 0 = No Alert 1 = Bang/Smash Detect 2 = Rain Detect	1627	Read Notify

Battery Service

Signal	Size (Bytes)	Units	Byte#
Battery level	1	Percentage Points	0

Device Information Service

Characteristic	Size (Bytes)	Units	Byte#
Mfg Name String	20	String	0