

## *“Hulan”*

# BLE GATT profiles

Project	
Category	Protocol documentation
Title	VT_HULPIL_20220308_BLE_GATT_PROFILES
Version	0.4
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Last saved	

Version	Date	Author	Description
0.1	25-06-2021	Jeroen Reeskamp	Document creation
0.2	20-10-2021	Jeroen Reeskamp	Added charging characteristic
0.3	11-11-2021	Jeroen Reeskamp	Added command service
0.4	08-03-2022	Jeroen Reeskamp	Added calibration service

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## GATT Services

### BAS (battery)

Generic service for monitoring battery state.

<https://www.bluetooth.com/specifications/specs/battery-service-1-0/>

Service\_UUID: **180f**

Battery level: **2a19**

**1 Byte | Read & Notify**

- uint8\_t battery\_level:
  - o 0-100

### DIS (device information)

Generic service for providing device information.

<https://www.bluetooth.com/specifications/specs/device-information-service-1-1/>

Service\_UUID: **180a**

Model number: **2a24**

**String | Read**

Manufacturer name: **2a29**

**String | Read**

Firmware version: **2a26**

**String | Read**

Hardware version: **2a27**

**String | Read**

### Hulan Pressure Service

Service\_UUID: **579ba43d-a351-463d-92c7-911ec1b54e35**

Pressure characteristic: **1470ca75-5d7e-4e16-a70d-d1476e8d0c6f**

**1 byte | Read & Notify**

- uint8\_t pressure:
  - o 0-255

### Charge Service

Service\_UUID: **044402a3-f8b4-479a-b995-63e99acb2735**

**READ, NOTIFY**

Charge characteristic: **22feb891-0057-4a3e-af5b-ec769849077c**

**1 byte | Read & Notify**

- uint8\_t charging:
  - o 0: Pre charge
  - o 1: Fast charge
  - o 2: Charge done
  - o 3: Sleep mode (not charging)



## Command Service

Service\_UUID: **6acccabd-1728-4697-9b4a-bf25ecca14aa**

Command characteristic: a9147e1f-e91f-4a02-b6e4-2869e0fe69bb

### 1 to 5 byte | Write

- uint8\_t command\_id:
  - 0x01: max pressure value
  - 0x0F: turn device off
- uint8\_t[] command\_data:
  - []: data

## Calibration Service

Service\_UUID: **7e238267-146f-461c-8615-39b358a428a5**

Command characteristic: 60b89ebc-d1c2-45ed-8b30-aa3ebd6ded65

### 1 byte | Write & Read

- uint8\_t calibration\_value:
  - Current calibration value

Command characteristic: 46f9ab5b-d01a-4353-9db4-176c4f3200cf

### 1 byte | Write

- uint8\_t calibrate:
  - [1..255] Starts calibration