The Bluetooth communication protocol document

## Communication description

The name of the broadcasting device is by default: voltage (5v / 7v) + "Outer ware / Pants / Footwear / Gloves / Accessories", the data communication service UUID is 0000 ff 0,0-0000-1000-8000-00805f9b34fb, communicate with the App terminal through two channels, Comman d channel and Respond channel respectively. The Com mand channel is used to receive the commands sent by the App side, and the Respond channel returns the response to the command and the listening data sent in the listening state.

The introduction is as follows:

The Command channel is UUID 0783b03e-8535-b5a0-7140-a304d2495cb8

To receive commands sent from the App side

The Respond channel is UUID 0783b03e-8535-b5a0-7140-a304d2495cba

For returning the command response and for listening to the data

## protocol command

#### 2.1 Command format

Each command consists of 5 parts, namely, frame head, command code, sending and receiving flag, data length and data content (no).

The frame header is a command identification symbol, 2 bytes in length, and fixed as CG (C learGrass). Command code length 1 byte length for devices to respond to command discrimination. The sending and receiving flag indicates the current command sending direction, 1 byte in length, 1 means that the command is sent by the App end, and 2 is sent by the device. Data length 1 byte, used to indicate the data size contained in the command. The data content is the information carried by the command, if not 0.

The command example is as follows:

transmit

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Bytes | 2 | 1 | 1 | 1 | Variable (as determined by the data length) |
| E.g. | CG | 0x01 | 0x01 | 0x08 | 0x0102030405060708 |

receive

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Bytes | 2 | 1 | 1 | 1 | Variable (as determined by the data length) |
| E.g. | CG | 0x01 | 0x02 | 0x01 | 0x01 |

#### Command detailed explanation

###### 2.2.1 Set Heating on / off

Send data is 1 byte, 1 and 00. Successful device returned 1 and failed returned 0.

The command format is as follows:

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x00 | 0x01 | 0x01 | 0x01 |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x00 | 0x02 | 0x01 | 0x01 |

###### 2.2.2 Read Heating status

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 01 | 0x01 | 0x01 | 0x00 |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 01 | 0x02 | 0x01 | 0x01 |

###### 2.2.3 Set Heating Level

pay attention to:

1. The maximum write length is 30 bytes. The data transferred does not need to contain the string end character '\ n'
2. Data is the gear value to be set, 0-F, maximum 16 gear

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 02 | 0x0D | 0x01 | 0 |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 02 | 0x0D | 0x01 | 0 |

###### 2.2.4 Read Heating Level

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 0E | 0x01 | 0x01 | None |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 0E | 0x02 | 0x01 | 2 |

###### 2.2.5 Read Battery Voltage

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 04 | 0x01 | 0x01 | None |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 04 | 0x02 | 0x02 | 0x1CC |

###### 2.2.6 Set LED Switch

Send data is 1 byte, 1 and 00. Successful device returned 1 and failed returned 0.

The command format is as follows

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 0A | 0x01 | 0x01 | 1 |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 0A | 0x02 | 0x01 | 1 |

###### 2.2.7 Read LED Switch Status

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 0B | 0x01 | 0x01 | None |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 0B | 0x02 | 0x01 | 1 |

###### 2.2.7 Read the Special Battery Voltage

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 10 | 0x01 | 0x01 | None |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 10 | 0x02 | 0x01 | 0x01 |

if data as 4 , means the battery has 4 leds had been lighten on,

if data as 3, means the battery has 3 leds had been lighten on,

if data as 2, means the battery has 2 leds had been lighten on,

if data as 1, means the battery has 1 led had been lighten on,

if data as 0, means the battery has no led had been lighten on,

###### 2.2.8 Set Bluetooth Name

The name supports up to 15 characters

Send From App

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 11 | 0x01 | 0x05 | ABCDE |

Receive By APP(device send)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Index | HEAD | CMD | S/R | Length | DATA |
| Send | CG | 0x 11 | 0x02 | 0x01 | 0x1 |