# FTMS protocol v1 – 2016-01-19 – Erwin de Haan

Using serial communication at 115200 baud.

Request (R) and Answer (A) based.

## Packet

|  |  |  |
| --- | --- | --- |
| # | Description | Value |
| 0 | START | 0xF0 |
| 1 | VERSION | Version number in one byte |
| 2 | COMMAND | Command byte |
| 3 | ID | ID byte |
| 4 | DATALENGTH | (lsb) [optional, required for variable length data commands] |
| 5 | DATALENGTH | (msb) [optional, required for variable length data commands] |
| … | DATA | Little Endian [optional] |

## Commands

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Command | ID | Data |
| OK | 0xF0 | 0x00 | None |
| Reset | 0xF1 | 0x00 | None |
| Refresh | 0xF2 | 0x00 | None |
| Forbidden | 0xF3 | VarID | None |
| NotFound | 0xF4 | VarID | None |
| TypeMismatch | 0xF5 | VarID | None |
| VersionUnsupported | 0xFE | 0x00 | Max supported version byte |
| Unsupported | 0xFF | 0x00 | None |
| SetInteger16 | 0x11 | VarID | 2 byte integer |
| GetInteger16 | 0x12 | VarID | None |
| SetInteger32 | 0x21 | VarID | 4 byte integer |
| SetInteger32 | 0x22 | VarID | None |
| SetBoolean | 0x31 | VarID | 1 byte boolean |
| GetBoolean | 0x32 | VarID | None |
| SetFloat | 0x41 | VarID | 4 byte float |
| GetFloat | 0x42 | VarID | None |
| SetString | 0x51 | VarID | N byte string  (DATALENGTH required) |
| GetString | 0x52 | VarID | None |
| DisplayString | 0xE5 | VarID | None (note add time to display) |
| Debug | 0xE6 | 0x00 | N byte string (DATALENGTH required) |

Every Get\* command will be replied to with a Set\* command.

## ComVars

|  |  |  |  |
| --- | --- | --- | --- |
| Name | ID | Type | Notes |
| ONBOARD\_LED | 1 | Boolean | None |
| LED\_BLUE\_FRONT | 2 | Int16 | None |
| DHT\_TEMPERATURE | 3 | Float | None |
| DHT\_HUMIDITY | 4 | Float | None |
| NotFound | 5 | VarID | None |
| TypeMismatch | 6 | VarID | None |