STANDARD PACKET

1 BYTE	1 BYTE	2 BYTES	2 BYTES	2 BYTES	1 BYTE	(MTU - 12) BYTES	1 BYTE	1 BYTE
Preamble	Flags	Source Address	Destination Address	Sensor Identification	Length	Data Payload	CRC	End Data

Unidirectionnal Packet (One-Way)

1 BYTE	1 BYTE	2 BYTES	1 BYTE	(MTU - 8) BYTES	1 BYTE	1 BYTE
Preamble	Flags	Sensor Identification	Length	Data Payload	CRC	End Data

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Packet Types

Bidirectional (Standard) Packet

```
struct standardpacket {
        const    char       preamble;    // Byte: Preamble (Magic Number)
        struct   flagfield  flags;       // Byte: Struct containing 8 flag bits
        unsigned short      sourceaddr;  // 2Bytes: Source Address
        unsigned short      destaddr;    // 2Bytes: Destination Address
        unsigned short      sensorid;    // 2Bytes: Sensor Number
        unsigned char       length;      // Byte: Length of Payload section
        char*               payload;     // Payload of length (MTU - 12)
        unsigned char       checksum;    // Byte: CRC against header and payload
        const    char       endpacket;   // Byte: End of Data
        };
```

Unidirectional (One-Way) Packet

```
struct unidirectionalpacket {
        const    char       preamble;    // Byte: Preamble (Magic Number)
        struct   flagfield  flags;       // Byte: Struct containing 8 flag bits
        unsigned short      sensorid;    // 2Bytes: Sensor Number
        unsigned char       length;      // Byte: Length of Payload section
        char*               payload;     // Payload of length (MTU - 8)
        unsigned char       checksum;    // Byte: CRC against header and payload
        const    char       endpacket;   // Byte: End of Data
        };
```

Flags bit-field struct

```
struct flagfield {
        unsigned int FLAG1: 1;
        unsigned int FLAG2: 1;
        unsigned int FLAG3: 1;
        unsigned int FLAG4: 1;
        unsigned int FLAG5: 1;
        unsigned int FLAG6: 1;
        unsigned int FLAG7: 1;
        unsigned int FLAG8: 1;
        };
```
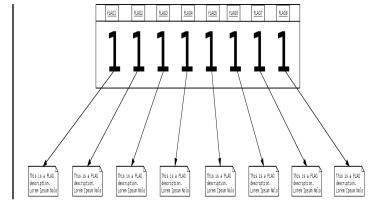
FLAG1	FLAG2	FLAG3	FLAG4	FLAG5	FLAG6	FLAG7	FLAG8
1	1	1	1	1	1	1	1

This is a FLAG description. Loren Ipsum Nolo

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