

Micro Air Vehicle Link (MAVLink) is a protocol for communicating with small unmanned vehicles. It is designed as a header-only message marshaling library.

It is mostly used for communication between a ground control station (GCS) and unmanned vehicles and in the inter-communication of the subsystem of the vehicle.

Packet structure

| Field name | Index (bytes) | Purpose |
|-----------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Start-of-frame | 0 | Denotes the start of frame transmission |
| Payload-length | 1 | Length of payload (n) |
| Incompatibility flags | 2 | Flags that must be understood for MAVLink compatibility |
| Compatibility flags | 3 | Flags that can be ignored if not understood |
| Packet sequence | 4 | Each component counts up their send sequence. Allows for detection of packet loss |
| System ID | 5 | Identification of the SENDING system. Allows to differentiate systems on the same network |
| Component ID | 6 | Identification of the SENDING component. Allows to differentiate different components of the same system, e.g. the IMU and the autopilot |
| Message ID | 7-9 | Message identification - defines what the payload means and how it should be correctly decoded |
| Payload | 10 - (n+10) | The data into the message, depends on the message id |
| CRC | (n+11) - (n+12) | Check-sum of the entire packet, excluding the packet start sign |
| Signature | (n+13) - (n+25) | Signature to verify messages originate from trusted source |