**Mission message to C&C**

This message will be sent via Socket.io to the C&C system to load a mission to the drone and immediately execute it.

**Message data**

Array of mission point objects, e.g. **MissionPointObject**[X], where X is the number of mission point objects

// Description: a mission point object is an instance of mavlink COMMAND\_LONG object.

// The definition of COMMAND\_LONG object can be found via this [link](https://mavlink.io/en/messages/common.html#COMMAND_LONG)

// The definition of MAV\_CMD objects can be found via this [link](https://mavlink.io/en/messages/common.html#MAV_CMD)

**MissionPointObject**

{

id: integer // mission point index, valid range [1, 255] (MJ: Why integer & not char?)

// as opposed to [-2,147,483,647, 2,147,483,647]

commandType: integer (MJ: Why integer? uint16\_t is specified in documentation) // MAV\_CMD type for various types

(MJ: various types of what?) (such as TAKE\_OFF, RETURN\_TO\_LAUNCH, WAYPOINT etc.)

// The commandType might require additional parameters the number and individual

// purpose of which depends on the type of the command

param1: float (MJ: Why float (specified in documentation) and not double?)

param2: float

param3: float

param4: float

lat: float // latitude

lng: float // longitude

alt: integer // altitude

}

Example for mission message:

MJ: Ask about 1,0,0,1 and 0,1,0,1 and 0,0,0,0 assignments to params

mission: [

{

id:1

commandType:22 // TAKEOFF

param1:1

param2:0

param3:0

param4:1

lat:0

lng:0

alt:15

},

{

id:2

commandType:16 // WAYPOINT

param1:0

param2:1

param3:0

param4:1

lat:32.2918300598

lng:34.8711456977

alt:15

},

{

id:3

commandType:16 // WAYPOINT

param1:0

param2:1

param3:0

param4:1

lat:32.2914778520

lng:34.8711657667

alt:15

},

{

id:4

commandType:20 // RETURN\_TO\_LAUNCH

param1:0

param2:0

param3:0

param4:0

lat:0

lng:0

alt:15

}

]

MJ: Do I need to install MAVLink?

<https://mavlink.io/en/getting_started/installation.html>

MJ: It is my current understanding that Socket.io can be implemented in a variety of languages. Which one do you use?

MJ: Discuss: <https://github.com/socketio/socket.io-client-cpp>