MAVLink Communication

Configure the telemetry 2 port for MAVLink1 communication

Components and Hardware: Arduino UNO, FC (Pixhawk/ Cube orange/ black)

Changed mission planner parameters:

SERIAL2_PROTOCOL = 2(2 for MAVLink2 as communication protocol)

SERIAL2_BAUD = 921(Baud Rate for communication).

Arduino Code:

```
//code starts

#include "mavlink.h"
void setup()
{
  Serial.begin(57600);
}
void loop()
{
  setmode_Auto();
}
void setmode_Auto() {
  //Set message variables
  uint8_t _system_id = 255;
  uint8_t _component_id = 2;
  uint8_t _target_system = 1;
  uint8_t _base_mode = 1;
  uint32_t _custom_mode = 2;

  // Initialize the required buffers
  mavlink_message_t msg;
  uint8_t buf[MAVLINK_MAX_PACKET_LEN];
```

```
  // Pack the message
  mavlink_msg_set_mode_pack(_system_id, _component_id, &msg, _target_system, _base_mode, _custom_mode);
  uint16_t len = mavlink_msg_to_send_buffer(buf, &msg);  // Send the message (.write sends as bytes)
  Serial.write(buf, len); //Write data to serial port
}

//code ends
```

After successfully burning this code with Arduino and connecting TX to RX pin of the FC and vice versa. The Arduino will send a continuous MAVLink message to the FC to change the flight mode.

After turning on the Arduino flight mode will be changed from current one to AltHold.