Create message at sender

RPI, Jetson
32 bit

TCP

Connection at Receiver

PC cockpit
64 bit

Socket, listen, connect, read

Message Header (buffer, length)

Control seg	Message typ	Time sent	Data type	Origin	Origin time	Data length	
							Short message type : Data **Long message type: length = 0**

Control seg: encode "con"

Message type:
short message = header contains data
Long message = data is sent in following packets

Time sent: local time at sender

Data type: camera n, usensor n, imu, etc

Origin: data source :   arduino, rpi etc

Origin time : local time at data source

Data length: 0 for short message,   # of bytes for long

Extract header

↓

Confirm control seg

↓

Message type (decision)

long → Determine data length
Create message
Enter header info
Reserve message buffer
(ptr, length)

↓

Read TCP buffer
Copy to message buffer

↓

Received N bytes
= message length? (decision)

→ 'Message complete'
Confirm ok

↓ (No)

Drop message
Request retransmission

short → Determine
Data pos
Data length

↓

Create message
Enter header info
Copy data

↓

'Message complete'
Confirm ok

↓

Queue message