

Specification

DIMENSIONS

Mōvi XL	664 x 507 x 700mm (L*W*H)
Camera Cage	399 x 255 x 289mm (L*W*H)

MECHANICAL

Pan Range of Motion	±360° Continuous Rotation
Tilt Range of Motion	Software adjustable up to +90°/-170°
Roll Range of Motion	Software adjustable up to ±90°
Max Pan Rate	200°/s
Max Tilt Rate	200°/s
Max Roll Rate	200°/s
Weight	11kg
Max Payload	23kg
Max Operating Speed*	160kph *Dependent on payload
Operating Temperatures	-20° to 50°C
Ingress Protection (IP)	IP52 resistance to dust and dripping water
Mounting System	MōVI XL Quick Release, Mitchell Mount
Materials	Carbon Fiber, 6061-T6 Aluminum, Glass Reinforced Polymers

ELECTRONICS

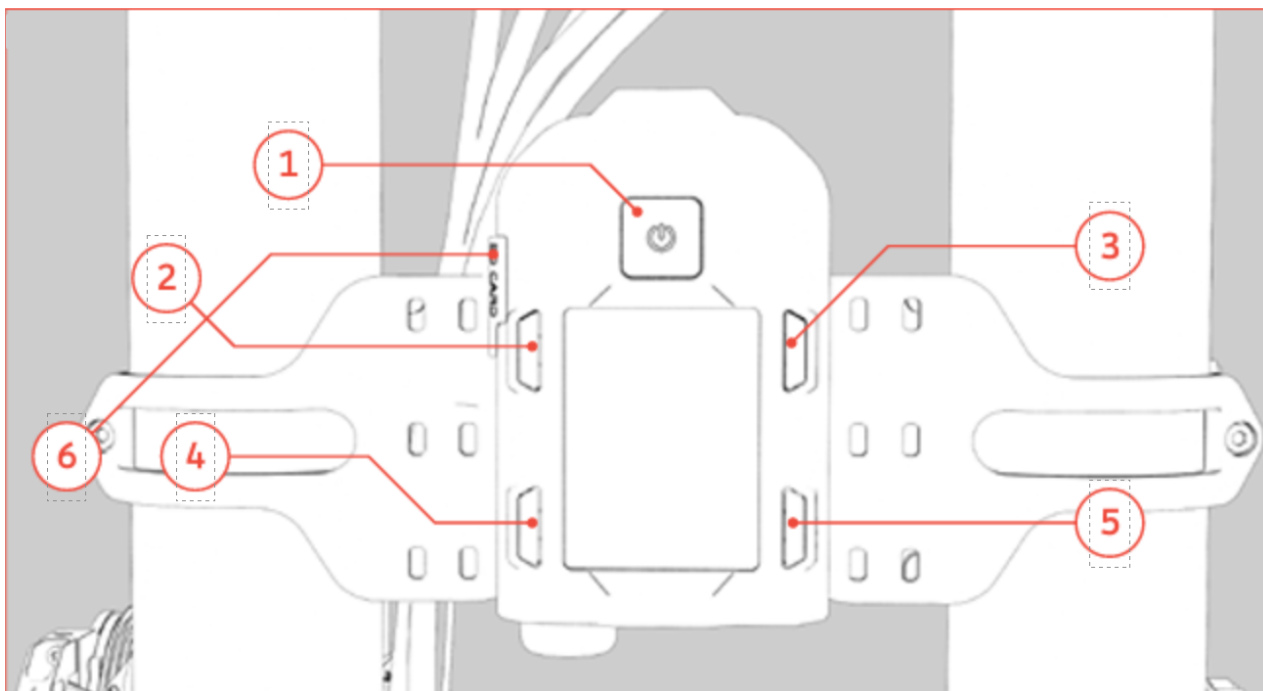
Data Logging Rate	5, 10, and 25 Hz
Connections	Bluetooth Low Energy v4.2 and 2.4GHz Custom FHSS Radio
Motor Type	Direct-drive 3 phase Brushless
Data Storage	microSD
Port Types	GCU ports - COM1, 12V, COM 2 TSU Ports - LTC Timecode In/Out, EXP, CANbus + Battery Voltage, CAM, 12-14V CAM, 12V AUX, F,I,Z, USB Type C

BATTERY

Nominal Battery Voltage	22.2V
Min - Max Battery Voltage	25.2V
Battery Capacity	1000 mAh
Cells	6 Cells
Max Battery Quantity	2 Batteries
Min Battery Quantity	1 Battery (using a single battery may decrease performance)
Max Continuous Discharge Rate (Per Pack)	25C
Max Peak Discharge Rate (Per Pack)	50C

GCU AND TSU LAYOUTS

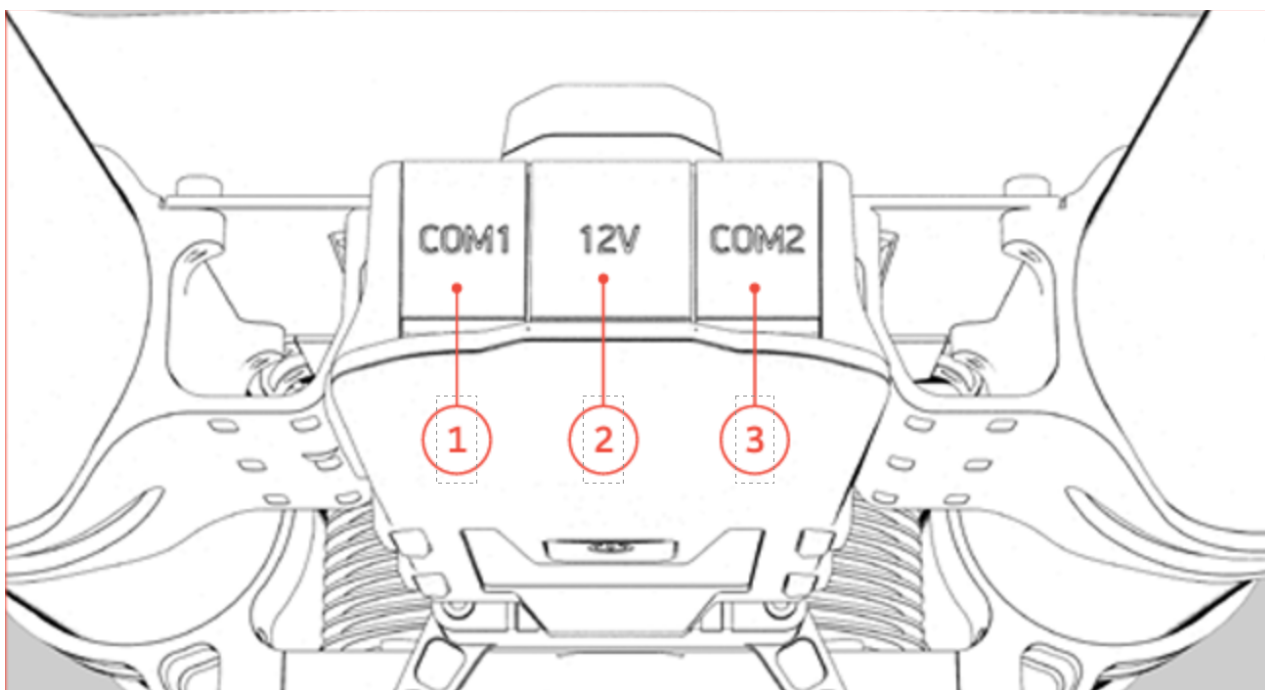
GCU LAYOUT



GCU LAYOUT

1. Power Button
 - A. Push (ON)
 - B. Hold (OFF)
 - C. Double Tap (Pause/Resume)
2. Back Button
3. Forward Button
4. Select Option (-)
5. Select Option (+)
6. microSD Card Slot

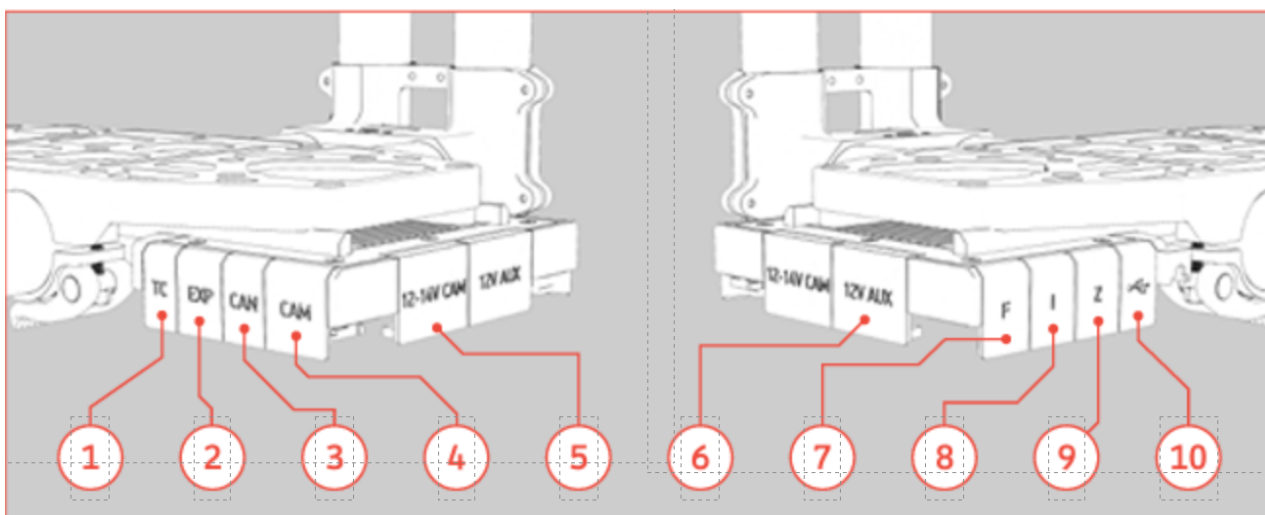
GCU CONNECTOR LAYOUT



GCU CONNECTOR LAYOUT

1. COM 1
2. 12V
3. COM 2

TSU CONNECTOR LAYOUT



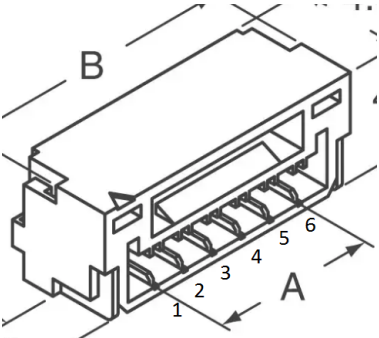
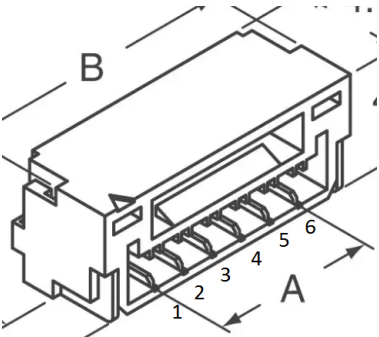
TSU CONNECTOR LAYOUT

1. TC
2. EXP
3. CAN
4. CAM
5. 12-14V 6A CAM
6. 12V 2A AUX
7. Focus
8. Iris
9. Zoom
10. USB C DRP

CONNECTORS AND PINOUTS

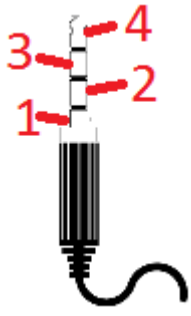
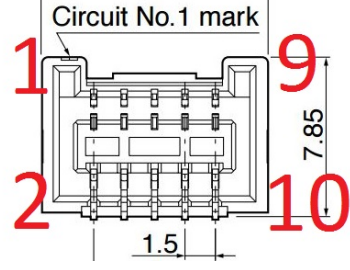
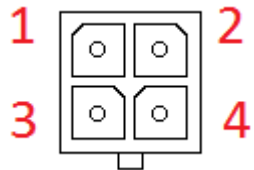
All connector pinouts are shown looking into the function side of the connectors on the GCU and TSU, unless stated otherwise.

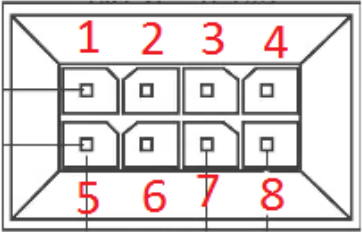
GIMBAL CONTROL UNIT

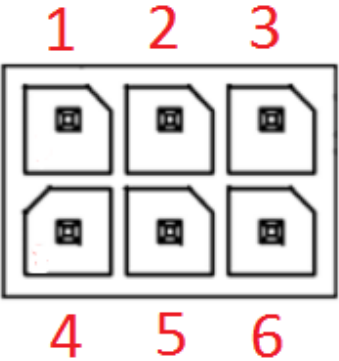
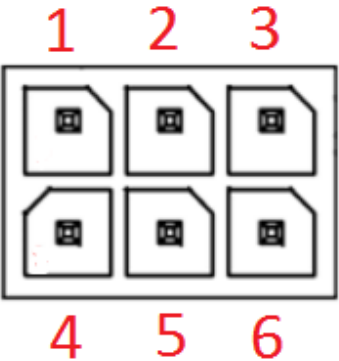
Connector	Type	Pin-Out
1. COM 1	JST GH 6-pin	 Insert Image of Pin-Out -from front (2D) 1 - GND 2 - +5V 3 - UARTn_TX 4 - UARTn_RX 5 - UARTn_CTS 6 - UARTn_RTS
2. 12V	Female P-TAP	 Insert Image of Pin-Out -from front (2D) + 12V PTAP V+ - 12V PTAP GND
3. COM 2	JST GH 6-pin	 Insert Image of Pin-Out -from front (2D) 1 - GND

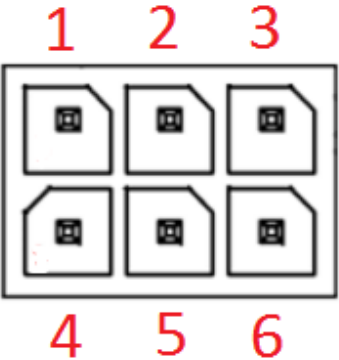
2 - +5V
3 - UARTn_TX
4 - UARTn_RX
5 - UARTn_CTS
6 - UARTn_RTS

TILT STAGE UNIT

Connector	Type	Pin-Out
1. TC (LTC Timecode)	3.5mm Jack	 Insert Image of Pin-Out (Shown from Function Side of the male 3.5mm Jack) 1 - (Base, Mic) - LTC IN 2 - (Ring, Gnd) - GND 3 - (Ring, Right) - SYNC IN 4 - (Tip, Left) - LTC OUT
2. EXP (Expansion)	JST ZPH 10 Pin	 Insert Image of Pin-Out 1 - GND 2 - +12V 3 - GND 4 - +5V 5 - TxD1/Tx- 6 - RxD1/Rx+ 7 - TxD2/Tx+ 8 - RxD2/Rx- 9 - GPI/UART RX 10 - GPO/UART TX
		

3. CAN (CANbus)	Molex MicroFit RA 4 Pin	Insert Image of Pin-Out 1 - GND 2 - +V Bat 3 - CAN H 4 - CAN L
4. CAM (Camera)	Molex MicroFit RA 8 Pin	 Insert Image of Pin-Out 1 - GND 2 - +5V 3 - RxD 4 - TxD 5 - LANC Power 6 - LANC Signal 7 - GPO/UART TX 8 - GPI/UART RX
5. 12-14V CAM (Camera Power)	Female P-TAP	 Insert Image of Pin-Out -from front (2D) + 14V PTAP V+ - 14V PTAP GND
6. 12V AUX (Auxiliary Power)	Female P-TAP	

		Insert Image of Pin-Out -from front (2D) + 12V PTAP V+ - 12V PTAP GND
7. F (Focus Motor)	Molex MicroFit RA 6 Pin	 Insert Image of Pin-Out 1 - Motor A 2 - Motor B 3 - +5V 4 - GND 5 - Encoder A 6 - Encoder B
8. I (Iris Motor)	Molex MicroFit RA 6 Pin	 Insert Image of Pin-Out 1 - Motor A 2 - Motor B 3 - +5V 4 - GND 5 - Encoder A 6 - Encoder B

9. Z (Zoom Motor)	Molex MicroFit RA 6 Pin	 Insert Image or Pin-Out 1 - Motor A 2 - Motor B 3 - +5V 4 - GND 5 - Encoder A 6 - Encoder B
10. USB Port	USB Type C DRP (Source and Sink 5V)	