Troubleshooting

NO.	The Problem	What to Do
1	Motors appear to be weak	After camera balancing, launch the Assistant App or the PC/MAC Assistant and start the Auto Tune Stability. Wait for the process to complete and the stiffness settings will be populated on the screen.
2	If after tapping the Auto Tune Stability button and the gimbal is still vibrating	(1) Check to make sure all knobs are very tight. Including the pan motor knob. (2) Check to make sure the camera securing screw is tight. Push on the camera plate to make sure it is not loose and sliding in the camera mount. (3) Try decreasing the stiffness of the each axis. You should be able to tell if there is one particular axis being affected by looking at the "power" of the axes.
3	Pan axis seems off center	Go into the Assistant App or PC/MAC Assistant, tap/click the Calibrate Center and follow the on-screen instructions.
4	Ronin seems to be drifting	Place the Ronin-M on the tuning stand and in the Assistant App or the PC/MAC Assistant, tap/click the Calibrate System button. Let the process complete before picking up the Ronin-M.
5	SmoothTrack doesn't work	(1) Turn on the Remote control and be sure the MODE switch is not at Position 1 (the uppermost position). (2) SmoothTrack is turned off in the Assistant App or the PC/MAC Assistant software. (3) The SmoothTrack Deadband is turned up too high. Reduce the Deadband size in the SmoothTrack Menu.
6	Motors seem to shutoff automatically	Check your camera balance. If the power indicated in the Gimbal Motors Menu indicates 10 or more on any of the 3 axes, please rebalance your camera.
7	Gimbal shuts off and doesn't come back on	Power cycle the gimbal. This is a motor protection algorithm that's built into the Ronin-M to save its own electronic components. If any particular motor goes into a self-protection mode (motor shuts off) 6 times within a 1 minute period, the Ronin-M will shut off power to the motors and will not come back to life unless power cycled.
8	Forgot the Bluetooth password	Connect Ronin-M to the PC/MAC Assistant and click the "Reset Password" button to reset your password.
9	Footage appears to wobble side to side or up and down	SmoothTrack speed is too high or SmoothTrack deadband is too low. Decrease the SmoothTrack speed or increase the deadband.

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Specification

General		
Built-In Functions	• Three Operation Modes Underslung Mode Upright Mode Briefcase Mode • Built-in independent IMU module • DJI Specialized Gimbal Drive Motors with Encoders	• Bluetooth Module • USB Connection • 2.4GHz Receiver • Temperature Sensor • DJI Advanced 32-Bit DSP Processor • D-Bus/PPM Receiver Supported
Peripheral		
Camera Tray Dimensions	Maximum depth at center of mass on camera base plate: 120mm Maximum height measured from top of camera base plate: 195mm Maximum width: 160mm	
Accessory Power Connections	12V regulated P-Tap x 2, USB 500mW x 1, DJI Lightbridge x 1	
GCU Input Power	4S Ronin-M Battery	
Connections	2.4GHz Remote Control, Bluetooth 4.0, USB 2.0	
PC/MAC Assistant Software Requirements	Windows XP SP3; Windows 7; Windows 8 (32 or 64 bit); Mac OS X 10.9 or above	
Mobile Assistant Software Requirements	iOS version 6.1 or above Mobile Device; Android 4.3 or above	
Mechanical & Electrical Characteristics		
Working Current	• Static current: 300mA (@16V) • Dynamic current: 600mA (@16V) • Locked motor current: Max 10A (@16V)	
Operating Temperature	-15oC ~ 50oC (-5oF ~ 120oF)	
Weight	2.3kg (5.07lbs) fully loaded with handlebar	
Gimbal Dimensions	500mm(W) x 210mm (D) x 420mm(H)	
Working Performance		
Load Weight Capacity (Reference Value)	2.5kg (5.5lbs)	
Control Angle Accuracy	0.02°	
Maximum Control Rotation Speed	Pan axis: 90°/sec Tilt axis: 100°/sec Roll axis: 30°/sec	
Mechanical Endpoint Range	Pan axis control: 360° Tilt axis control: Up 105o to Down 165° Roll axis control: ± 110°	
Controlled Rotation Range	Pan axis control: 360° Tilt axis control: Up 105° to Down 165° Roll axis control: ± 25°	

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FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada RSS exemptes de licence standard(s).

Son fonctionnement est soumis aux deux conditions suivantes:

(1) cet appareil ne peut pas provoquer d'interférences, et

(2) cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

For model: R-6: The output power of this device is less than 20mW.The SAR test is not required.

For model: RONIN M-TX: The SAR limit of USA/CA (FCC/IC) is 1.6 W/kg averaged over one gram of tissue.

It has also been tested against this SAR limit.

The highest SAR value reported under this standard during product certification for use when properly worn on the body is 0.41 W/kg (FCC) and 0.41W/kg(IC) .