

# **Operation of DJI M600 & Ronin-MX Gimbal**

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Zahra Arjmandi

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## 1- The DJI M600 calibration

- 2- Power on the remote controller
- 3- Power on one battery (others will be turn on automatically)
- 4- Connect the DJI to the computer



- 5- Launch the DJI Assistant 2 on laptop  
DJI M600 pro:
  - a) Check the firmware update
  - b) Basic setting: Check all the GPSs and IMUs (all of them should blink green)

Inner IMU	Ex IMU1	Ex IMU2
X 0	X 86	X 86
Y 0	Y -17	Y 17
Z -36	Z -36	Z -36
Installation Direction		
Forward ▾	Forward ▾	Forward ▾

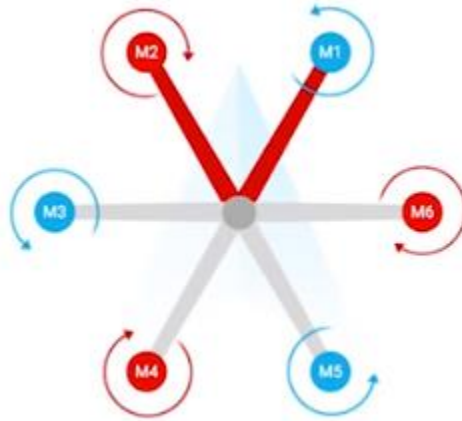
  

GPS1	GPS2	GPS3
X 129	X -102	X -102
Y -5	Y 59	Y -59
Z -182	Z -166	Z -166

Unit: mm

- 6- Unfold the propellers

- 7- In the ESC setting: Check if the rotation of each motors are correct .  
M1-M3-M5 counter clockwise  
M2-M4-M6 clockwise



- 8- The DJI LightBridge2:  
Check the versions  
9- Raise up the GPS brackets  
All the arrows should point in the same direction as the nose



## 2- Flight Preparation

- 1- Unfold the frame and fastened the red clips  
Align the white arrows on the propellers
- 2- Power on the remote controller
- 3- Power on the Aircraft  
LED (under the second battery) should be solid green.



- 4- Connect the remote control to a phone or tablet
- 5- The DJI Go app:
  - a) System status: all should be Normal
  - b) Check the batteries level
  - c) Stick mode: mode 2
- 6- On the remote controller change the mode to P mode.

**When the LED blinks green it's ready to fly.**



### 3- The Gimbal Ronin MX Calibration

#### l) Balancing: the manual part

##### 1- Vertical tilt:

Rotate the tilt axis so that the camera lens is pointing upward and use the two nobs showing in the picture to gently slide the camera until the camera points upwards when released.



##### 2- Roll axis:

Use the three knobs (2 under the camera and one above it) to slide camera left and right until the camera no longer moves after you let it go.



### 3- Tilt axis:

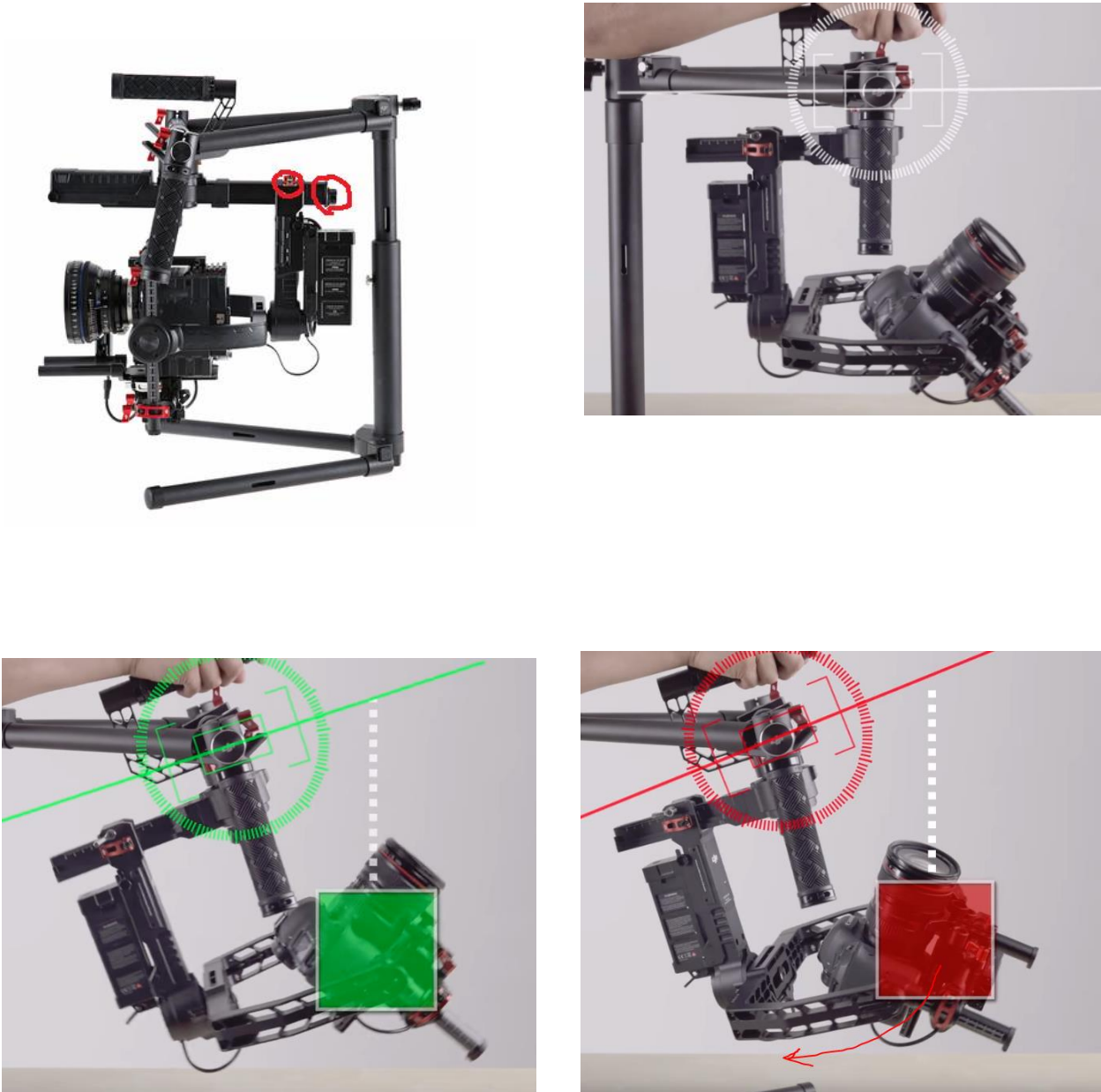
Use the two knobs in both sides of camera showing in the picture to move camera forwards and backwards until the camera stay level in every angle when you remove your hand. (while holding the roll axis in position)

Only very small adjustments are required.



#### 4- Pan axis:

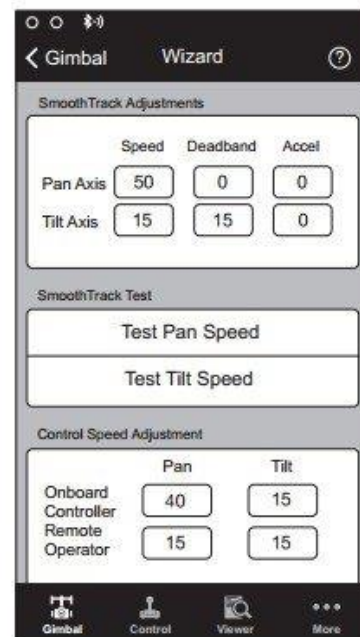
Open the clamp and turn the knob showing in the picture to slide assembly until the camera does not swing when you are turning the handle.





## II) Calibrating (Using the DJI Assistant):

- 1- Turn on the Bluetooth of your phone or tablet and search for the device.  
**Password:123456**
- 2- If your app didn't find your device, press the reboot button beside the led on the gimbal which is a tiny hole.
- 3- Press **Auto tune stability** it will calibrate motor and sensors.
- 4- In Wizard panel you can change **speed, acceleration, stiffness\*** and **deadband\*\*** of each motor.  
\*Stiffness: the strength that Ronin motors maintain the camera. It should not be too low or too high.  
\*\*Deadband: the amount you need to move the handles before the camera start moving.
- 5- **Live data** are shown in in the Wizard panel
- 6- **Smooth mode**: is an intelligent movement prediction system.
- 7- **Briefcase mode**: a mode for recording video without the aircraft and by handles.





## 4- Some useful information

- a) SRW-60G Transmitter is used to transmit real-time video feed.  
It should be mounted inside the cover, below the aircraft.
- b) The second battery is optional and is for res camera or other accessories if needed.
- c) For **Radar** and **Lidar** we should buy **Upper Expansion bay** which allows us to put accessories on top of the drone. Weighing up to 2 lb.