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MOZA Mini 360°

V1.0

**Users Manual** 

Thank you for choosing the Mini 360. The Mini 360° was created in partnership with Gudsen Moza, Gimbal. Guru, and OwlDolly. Gudsen Moza's software solutions and hardware systems bring together interchangeable gimbal heads, Bluetooth wireless control, App based functionality, motor encoders, and 32 bit processing. Learn more at Gudsen.com.

#### In the Box

C >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	18650 Battery X1	Charger X1
Gimbal X1	Operators Manual X1	Adapter plate X 1

#### MOZA Mini 360°



# **Battery Charging**

#### On-board Charging:



Unscrew the battery cover and insert the 18650 battery into the handgrip with the positive (+) side of terminal pointing upwards. Then secure the battery cover to the handle Connect the USB cable to the handle of the gimbal. Once connected to a power supply the indicator light

will turn red. It takes 5 hours to fully charge the battery. After the battery is fully charged, the indicator light will automatically turn off. Note, it is not recommend to use a USB port from a computer as a power supply.

#### Charger:

Connect the USB cable to the USB port on the charger. Place the battery's positive (+) terminal towards the side with the LED indicator. Takes 5 hours to fully charge the battery. When the charger light indicates "green" the battery is fully charged.

#### Mount and Balance 360° Cameras

1. Locate the camera's 1/4 mount and align the Mini 360°'s thumb screw. Use the thumb screw to attach the camera to the stahilizer

2. The camera may need to be adjusted from side to side to find the correct center of gravity. Once the camera's center of gravity is in the right position tighten the thumb screw hand tight  $_{\circ}$ 







### Adapter Plate for Dual Kodak PixPro SP36

1. Attach the two Kodak Pixpro SP360 to the adapter plate.





2. Secure the adapter plate to the Mini 360° camera mount.

#### Handgrip Button Functions

#### Joystick

Control the gimbal movements: Up/down/left/right, Pan/Tilt. Single press: Yaw-follow mode, tilt and roll are Locked. Double press: Yaw-tilt follow mode, roll are Locked.



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Long press for 3 Seconds: All-lock mode, tilt, yaw, and roll are locked.

#### **ON/OFF** Button

Triple Press: re-center the gimbal to its starting position; Long Press: Turn on/off;

Zoom Switch (No Function Currently with 360° Cameras)

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## Status Light

Yaw-Follow Mode: Yaw-Tilt Follow Mode: All-lock Mode: Low Battery Level: Firmware Upgrading:



A Note: To enter the firmware upgrade mode. Press and hold the joystick in, then press the On/Off button. The motors will not function during firmware upgrade.

#### Changing Operating Modes

Upright Mode:



Tilt the gimbal by 45 degrees, the gimbal will automatically orientate to the horizon. Rotate your arm so your elbow points outward from your body. Your hand and gimbal will now be horizontal.



Continuing on from the horizon orientation. Tilt the gimbal another 45 degrees to invert the stabilizer. Rotate your arm so your elbow points upwards. Your hand and gimbal will now be inverted. Reverse or continue this process to return the stabilizer to default orientation.

#### MOZA-Assistant APP & GUI

iOS App Installation: Search MOZA Assistant in App Store and download the APP to your iPhone.

Computer Installation: For Mac and Windows user, please download the installation files on GUDSEN' s official download page.

A Note: Driver installation is required for first time users on PC or Mac OS. Mac users will need to go to Gatekeeper' s Settings, choose Install Programs from Unidentified Developers, and select install from Allow from Anywhere.

#### Calibration

#### Connection

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**CAPTURE THE WORLD** 

iOS App: Turn on the Mini 360° and open the MOZA Assistant App from your phone. Swipe through the models of stabilizers and select the Mini 360. Connect the gimbal to your phone via Bluetooth connection

**Computer:** Use a USB cable to connect the gimbal to a computer. Download the MOZA Assistant software from Gudsen.com. Open the MOZA Assistant software.

#### Gyroscope calibration

For gyroscope calibration, you can use your smartphone or Mac/Windows computer: Click "Motor" to turn off motors. Place the gimbal on a sturdy vibration free surface like a table for calibration

iOS App: Launch the MOZA Assistant App on your phone. Click "Calibration" and choose "Gyro Calibration" to start calibration. Click "Back" after the calibration is done.

Computer: Open the MOZA Assistant software on your computer. Click "Gyro Calibration" to start calibration. The screen will display "success" after the calibration is finished.

#### Accelerometer calibration

iOS App: Click "Accelerometer Calibration" in the APP. Follow the on screen prompts. Position the gimbal as shown in the prompts. Remove the camera from the Mini 360°. Rest the bottom edge of the Mini 360°' s camera mount platform on the edge of the table. Use the palm of your hand to secure the gimbal against the table' s edge. Allow the body of the gimbal to hang freely but motionless. Then click "Start" on the App

Computer: Click "Accelerometer Calibration" on your computer. Follow the on screen prompts. Position the gimbal as shown in the prompts and as described above under IOS App Accelerometer calibration. Then click "OK"

A Notes: It is recommended to keep the device still during calibration. Vibrations will affect accuracy of calibration. Follow the 3-sided calibration.

#### Upgrade Firmware

Press and hold the joystick in. Then press the "ON/OFF" button once to enter dfu mode. During the upgrading process, the LED light will blink and the motors will power off. Note do not power off or disconnect the gimbal during the upgrade process.

You can use MAC/Windows or App to connect the gimbal.

**iOS App:** Connect the App to the gimbal by Bluetooth through the MOZA Assistant. The App will automatically enter the firmware upgrade interface.

Computer: Connect the computer to the gimbal by USB cable. Open the MOZA Assistant software to start the update. The APP will automatically enter the firmware upgrade interface. Click "Upgrade Firmware"

When finished, restart the gimbal.

#### **Optional Wearable Kit Remote Mount**



The gimbal can be detached from handgrip and attached to the wearable kit.

A Note: After the Gimbal Head is attached to the wearable kit. The Bluetooth from the wearable kit and the detached handgrip will automatically pair. After pairing is successful, the handgrip can be used as a remote control. The handgrip can control the gimbal movements and switch modes. The control range is 2~4 meters.

The wearable kit requires two 18350 batteries. Loosen the lock screw, insert the two batteries into the battery container. Pay attention to polarity of the batteries. Put the battery cover on and tighten the lock screw.

Use the USB charging cable to charge the wearable kit. It will take 5 hours to fully charge the batteries. The indicator light will flash green when it is fully charged.

#### On/Off Button:

Triple Press: re-center the gimbal to its starting position; Long Press: Turn on/off;

Light Status :

aw-Follow Mode:	
aw-Tilt Follow Mode:	<u>II II II II II</u>
II-lock Mode:	
ow Battery Level:	
irmware Upgrading:	

A Note: The motors will not function during the firmware upgrade. To enter the firmware upgrade mode Press the R button at the bottom, then press the On/Off button.

Specs		
Gimbal		Battery
Weight:	330g	Type :
Dimensions:	300*90*35mm	Model :
Max Payload :	250g	Capacity :
Tilt Angle :	30°	Output Voltage : 4
Roll Angle :	360°	Output Current :
Yaw Angle :	360°	
Working Voltage	Charger	
Dynamic Current	Input Voltage :	
Static Current :	100Ma	Input Current :
Battery Life :	≥4 hrs	Output Voltage
USB Input :	Micro USB 2.0	Output Current
Bluetooth :	Bluetooth4.0	Charging time :
	Range: 5 meters	

#### FAQ

#### Q: Stabilizer is rolling/tilting from left to right.

A: Check the arrows on "This Side Up" located on the roll arm. If the arrows are pointed down the gimbal is incorrectly oriented and will not function. Remove the camera, and reorient the gimbal so that the arrows are pointing upward.

#### Q: Stabilizer is panning by itself.

A: Calibrate the Gyro, See Calibration.

#### Q: Stabilizer is not level to the horizon.

A: Calibrate Accelerometer, see Calibration.



#### Q: Audible sounds/vibrations are picked up by my cameras microphone.

- A: (1) Check the position of the counterweights, see Counterweights; (2) Check the camera' s center of gravity when balanced on the stabilizer, see Mount and Balance;
  - (3) Try calibration, see Calibration.

#### Q: Motors make audible sounds and the stabilizer turns off. A: Battery is depleted, charge or replace battery.

# Warranty

#### Warranty Terms

#### lithium-ion 18650 2600mAh 4.2V (max) 2A ( max )

5V 1A ( min ) : 4.2V : 500mA 5hrs

#### The gimbal and charger are covered by a 12-month warranty. The motor and battery come with a 3-month warranty. The one-year limited warranty does not apply to consumable parts such as the user manual, USB cables, and outer box. Shipping costs are not covered. Returns and Refunds Policy

Within seven (7) calendar days of receiving the product, buyers must contact us via email for an RMA for return, exchange or repair. Customer is responsible for shipping costs.

#### Exchange & Repair

If the product has a manufacturing defect within 15 calendar days of purchasing the product, the defective unit will be exchanged. Defective product will be inspected and if approved, exchanged. The replacement applies only to the gimbal. Other accessories without qualifying issues are not covered. Customer is responsible for shipping costs.

#### Conditions for warranty repair service are:

1. Warranty has not expired.

2. Proof of purchase, receipt or invoice.

3. Product labels, serial numbers, waterproof marks, etc. show no signs of tampering or alteration

4. No damage has been caused by the user(s), physical damage, improper usage, and or poor maintenance.



MOZA-Assistant for iOS

Web: www.gudsen.com Support: support@gudsen.com Info: info@gudsen.com



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