

# MOZA Mimic Motion Control Tutorial Guide

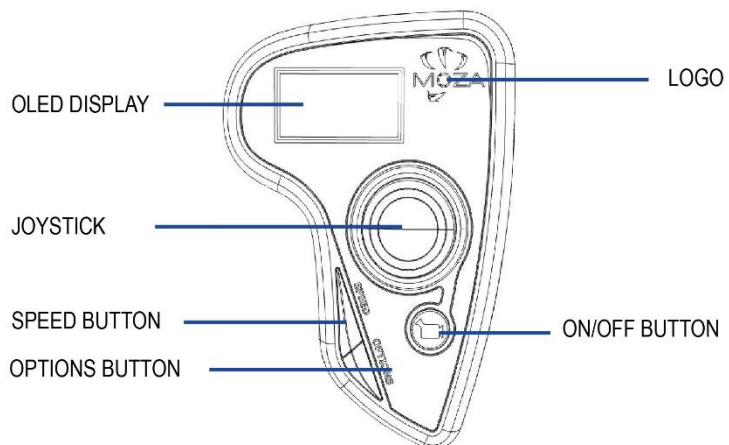
Parts schematic

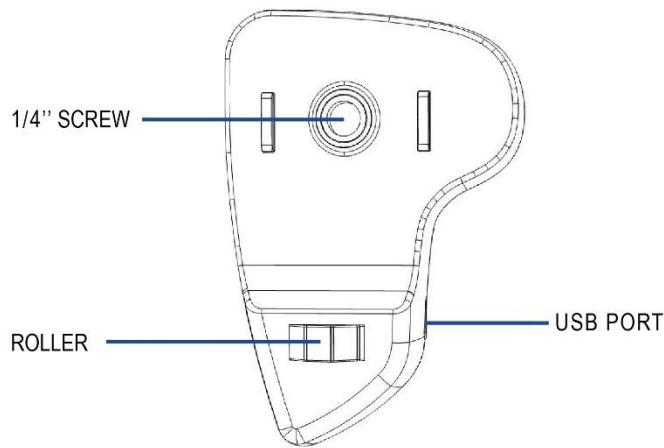
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Figure 1

MOZA thumb controller schematic

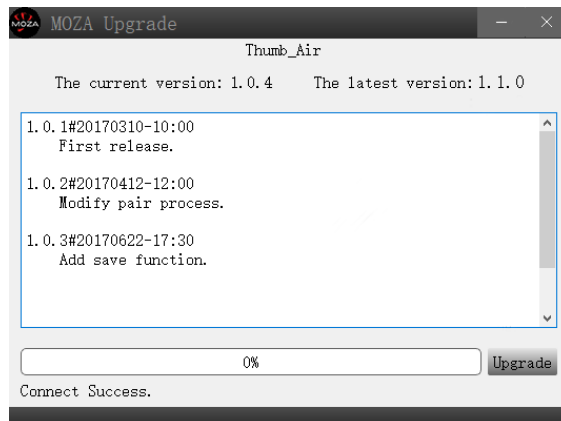
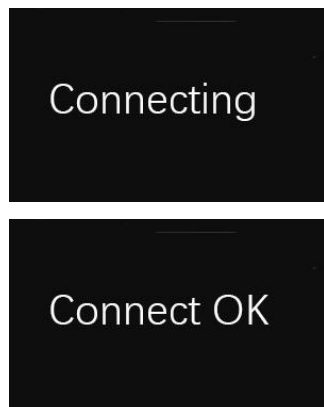




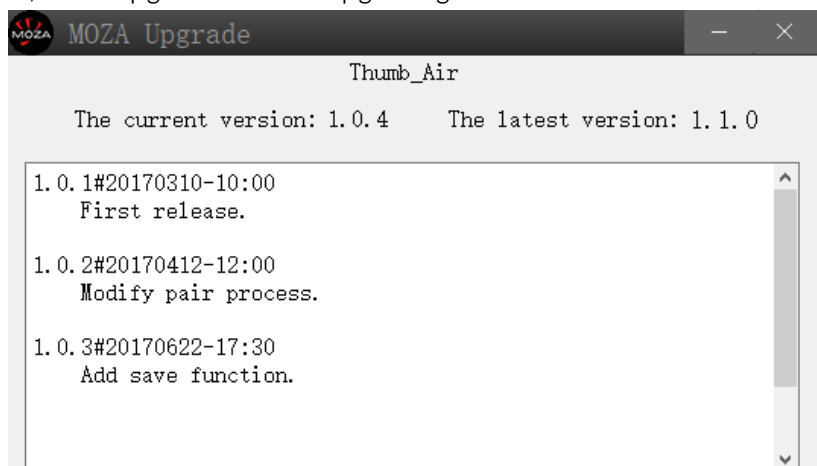
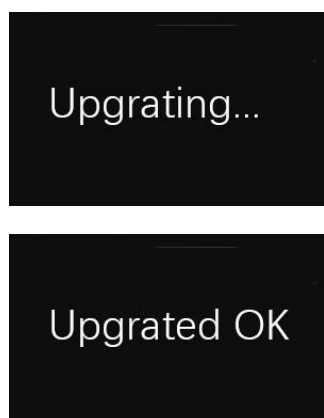
Please note that to use the mimic motion control functionality, it requires to upgrade both the firmware of the MOZA thumb controller and the MOZA Air gimbal first.

## Steps to upgrade the firmware of MOZA thumb controller:

1. With the thumb controller off, long press "SPEED" without releasing it, connect controller to computer through USB port, release "SPEED" button when the screen displays "connecting".
2. Launch MOZA-Assistant after installing the driver. When the screen displays "Connect OK", MOZA-Assistant enters the interface of firmware upgrade.



3. Ensure the network being connected, MOZA-Assistant will display information of firmware version and upgrade, click "Upgrade" to start upgrading the thumb controller.



## Upgrade Firmware of the MOZA Air Gimbal :

### 1. Use the MOZA Assistant Software to Upgrade on Computer :

Press the joystick to turn MOZA Air on and enter the firmware upgrading mode. The indicator will blink and the motors power off. Connect the gimbal to computer with USB cable and then launch GUI. GUI will automatically recognize MOZA Air's status and enter the firmware upgrading interface. Connect to the network and click "Upgrade". The GUI will automatically download the latest firmware and rewrite it to the MOZA Air. Plug out USB after upgrading is done 100% and restart the MOZA Air.

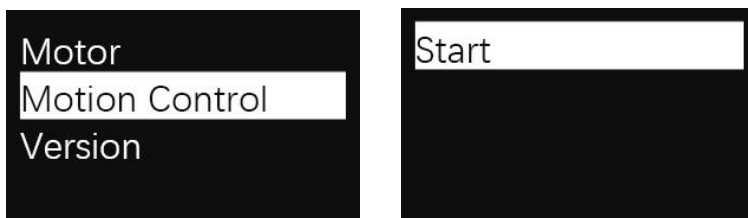
### 2. Use the MOZA Assistant App to Upgrade on Your Phone :

Press the joystick to turn MOZA Air on and enter the firmware upgrading mode. The indicator will blink and the motors power off. Turn on Bluetooth and search your MOZA device to connect. The MOZA Assistant App will recognize MOZA Air's status and enter the firmware upgrading interface. Make sure network is connected and click "Upgrade". The App will automatically download the latest firmware and rewrite it to the MOZA Air. After the upgrading is 100% done, disconnect and restart the MOZA Air. It takes around 20 minutes to upgrade firmware on the mobile phone.


## Operation Guides:

### Only apply to version D of the MOZA thumb controller

1. Pair MOZA Air with the thumb controller (which has been paired after manufacture).
2. Turn MOZA Air on.
3. Calibration should be done when you use this function for the first time or drifts and unstable situations occur, please refer to mimic control calibration.
4. Long press "OPTIONS" to enter the menu. Select "Motion Control" → "Start" to enter the mimic control mode.



5. The screen displays parameters of each axis after entering the mimic control mode. If "Error" pops out on the screen, please check the thumb controller code or try it again.




Motion Ctrl  
Pit: -000  
Rol: -002  
Yaw: -063

6. If the attitude of MOZA Air is inconsistent with the thumb controller in mimic control mode, long press "SPEED" button to pause mimic control, turn the thumb controller to a desired position, then release "SPEED" to restart control when both attitudes become consistent.

7. Move the joystick leftwards to exit the mimic control mode.

### **Mimic control calibration**

1. Place the thumb controller and MOZA Air well like figure 1
2. Long press "OPTIONS" to enter the menu. Select "Motion Control" -> "Motion Calib" to start calibration.



Motor  
Motion Control  
Version

3. Keep the thumb controller still, until the screen displays "Success" or "Fail".