

# **3D180VR**

**User Manual for the App**

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## 一. Running the App Program.

(Please contact the after-sales service personnel to obtain the latest APK software)

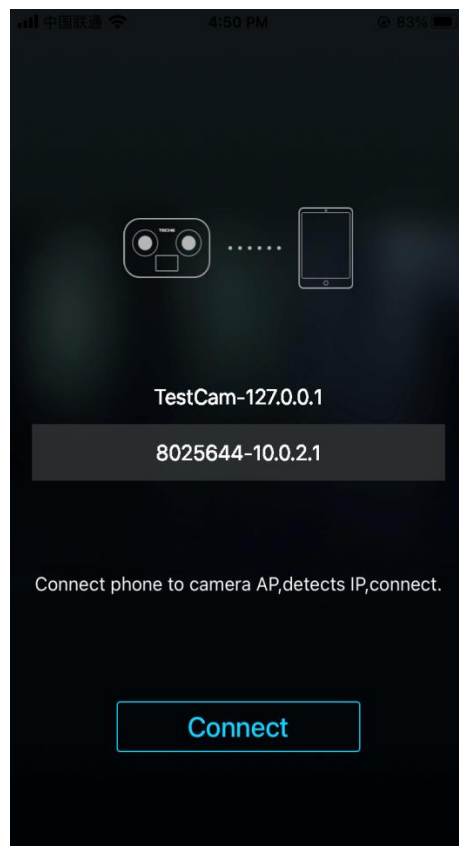


3D180VR

## 二. Establishing Connection between Camera and Device.

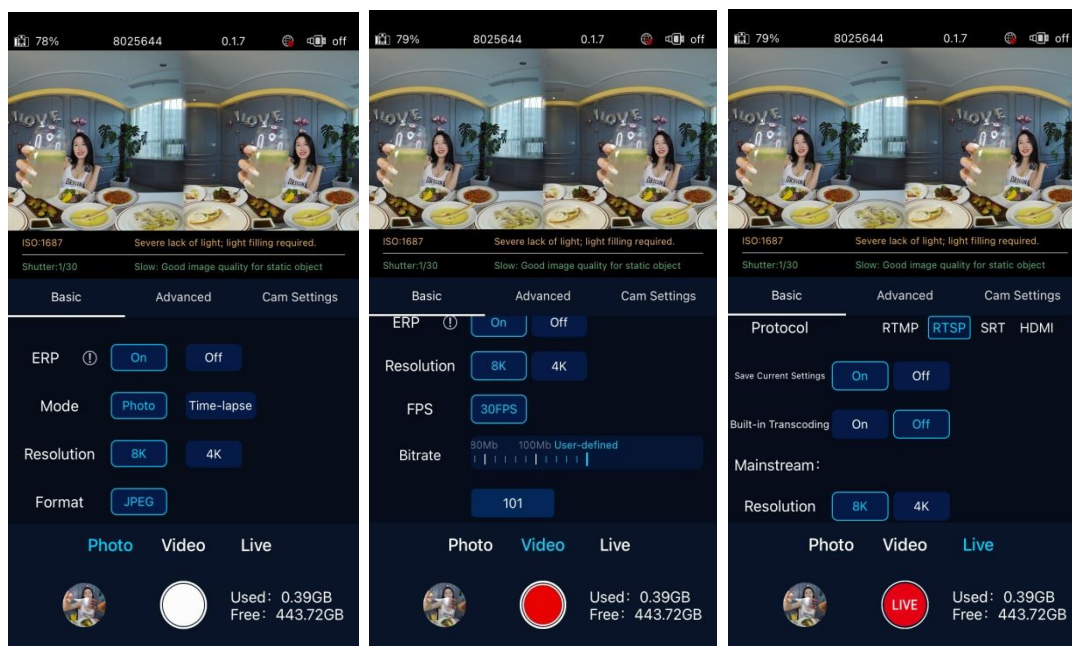
(Camera Wi-Fi password: teche720)

Enter the app connection interface, select the camera connection in the middle of the screen, and enter the camera's control and preview interface



### 三. Function Introduction

- 1) The camera has three modes: Single Shot, Video Recording, and Live Streaming. Clicking the capture button at the bottom allows you to capture photos and videos. Clicking the central capture button again will end the capture process. (See the image below)
- 2) The upper part of the screen shows the preview of the camera with two lenses combined.
- 3) The middle part of the screen is the basic settings interface and the parameter settings interface.
- 4) The bottom part of the screen is divided into photo, video, and live streaming modes. You can switch between modes and adjust the exposure settings. The bottom right corner displays the real-time storage capacity of the camera.



## **四. Introduction to Shooting Modes**

### **a) Taking Photos**

1) Shooting Modes: There are Single Shot and Burst Shot. In Burst Shot mode, the camera will automatically take photos at a periodic rate selected by the user.

2) In-camera splicing extension: Set whether to perform ERP conversion on the captured material..

3) Image format: JPEG.

4) Resolution: Sets the resolution for capturing photos with the camera. External unfolding has only 8k resolution, while internal unfolding allows for selecting between 4k and 8k.

Image (Internal ERP) Resolution: 7680x3840

Image (Dual Fisheye) Resolution: 7296x3648

5) Capture Frequency: This setting is activated when the mode is set to Automatic Capture. Under Burst mode, options include 1s/shot, 3s/shot, 5s/shot, and custom time intervals with a maximum setting of 1200s/shot.

## b) Recording Videos

1) In-camera splicing extension: Set whether to perform ERP conversion on the captured material.

2) Resolution and frame rate: 8K 30FPS outside the camera, 4K 30FPS and 8K 30FPS inside the camera.

Video (Internal ERP) Resolution: 7680x3840

Video (Dual Fisheye) Resolution: 7296x3648

3) Bitrate: Can be set to 100 Mbps for the outer spread, selectable between 1 and 100 Mbps for the inner spread.

4) Volume: Can be set to mute or unmute.

5) Shooting segment time: set the time length of a single video file. Currently there are five options: 10 minutes, 20 minutes, 30 minutes, 60 minutes, no segment. Users can choose according to their needs.

6) Encoding Format: Both internal and external modes currently support only H.265.

7) Color Depth: 8-bit; 10-bit

8) Audio Encoding: AAC

9) Audio Sampling Rate: 48kHz

## c) Live Streaming

1) Live Streaming Protocol: Currently supports RTMP, RTSP, and SRT.

2) Save Live Streaming Status: Automatically save the original state settings.

3) Encoding Format: H.265

4) Live Streaming Mode: You can stream directly from the camera or use the controller for projection transformation before streaming (for future advanced feature support).

5) Resolution: 8K (20, 30FPS), 4K (30FPS)

Internal Live Streaming (ERP) Resolution, Frame Rate:

7680x3840, 20FPS/30FPS

Internal Live Streaming (Dual Fisheye) Resolution, Frame Rate:

7296x3648

6) Bitrate: Adjusts the output bitrate of the live streaming video, ranging from 1 to 100 Mbps. Choose an appropriate value based on the actual network bandwidth. (SRT: 40 Mbps)

7) Volume: Can be set to mute or unmute.

8) RTMP Streaming Address: Sets the RTMP server address.

The controller will push the video stream from the camera to the configured server, and viewers can watch it using the playback address provided by the live streaming platform.

9) RTSP: When the live streaming protocol is set to RTSP, three playback addresses will be automatically obtained: the camera's fixed IP playback address, the camera's automatically obtained IP playback address, and the camera's WiFi IP playback address. You can input the corresponding address in the player to watch the live stream.

10) SRT: By setting the camera to use the SRT protocol, it is possible to reduce the latency to around 1 second. Input the standard SRT streaming protocol, and the controller will push the camera's video stream to the server. Viewers can then watch the live stream using the playback address provided by the live streaming platform.

11) Internal Transcoding: Enabling the transcoding feature allows simultaneous output of two live streaming streams. It provides settings for the sub-stream, such as resolution, bitrate, and streaming address.

12) SRT Protocol Settings: After switching the camera's live streaming mode to SRT, the entered live streaming address will be displayed below.

For end-to-end live streaming, you can enter the default address :

`"srt://0.0.0.0:10000?mode=listener "` IP remains unchanged, and the port can be freely changed to a valid port.

If you want to stream to an SRT server, the address format is as follows:

`"srt://192.168.14.176:10080?streamid=#!::h=live/xf,latency=0,m=publish"`

The address provided is for reference only. Please use the actual address based on your specific setup.

13) HDMI: After switching the viewing device to HDMI, connect one end of the HDMI cable to the bottom of the camera and the other end to the terminal device. When the camera is in live streaming mode, you can preview 2K (2:1/16:9) and 4K (2:1/16:9) panoramic live streaming videos through HDMI.



## 五. Parameter Settings

Exposure Settings: You can choose between Simple Mode and Advanced Mode.

1) Simple Mode:

Brightness Settings: Used to adjust the brightness of the camera, supporting 1-11 levels.

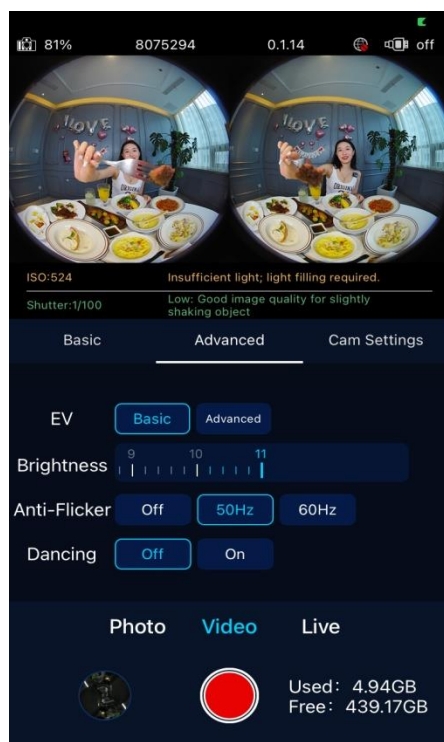
Anti-Flicker: Counteracts the shutter speed to improve shooting results in the presence of flickering lights.

①Close: Shutter speed is set to 1/30-1/8000

②50Hz: The shutter speed is set to 1/50-1/8000

③60Hz: The shutter speed is set to 1/60-1/8000

Dance Mode: on/off. Suitable for dynamic shooting to prevent motion blur caused by the subject's movement during the capture. (Similar to increasing the shutter speed).



## 2) Advanced Mode:

Exposure Mode: Auto Exposure / ISO Priority / Shutter Priority / Manual Exposure.

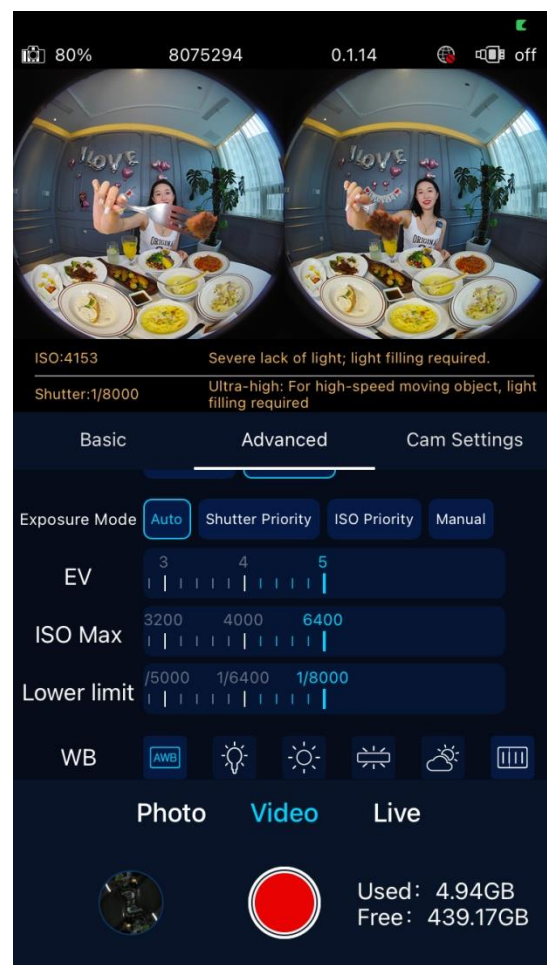
EV Value: -5 (Dark) to +5 (Bright). Adjusts the brightness level of the image in real-time by adjusting the EV value.

ISO Upper Limit: 100 to 6400

Shutter Speed: 1/30s (Slow) to 1/8000s (Fast)

## 3) White Balance Settings:

AWB Auto Mode / Incandescent Mode / Daylight Mode / Fluorescent Mode / Cloudy Mode / Manual Mode.



#### 4) Image quality adjustment:

Red gain: value range [0,100]

Green gain: value range [0,100]

Blue gain: value range [0,100]

Hue: value range [0,100]

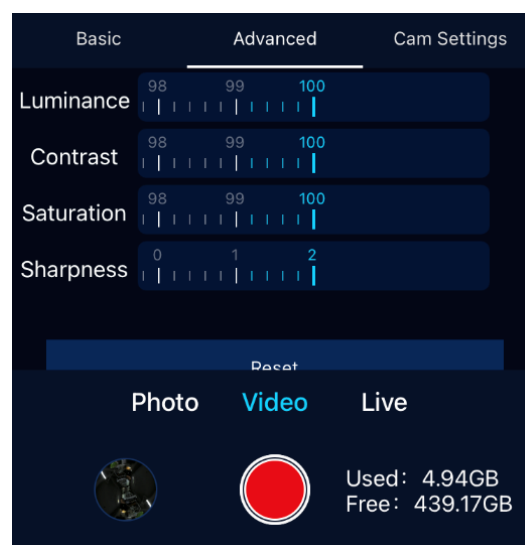
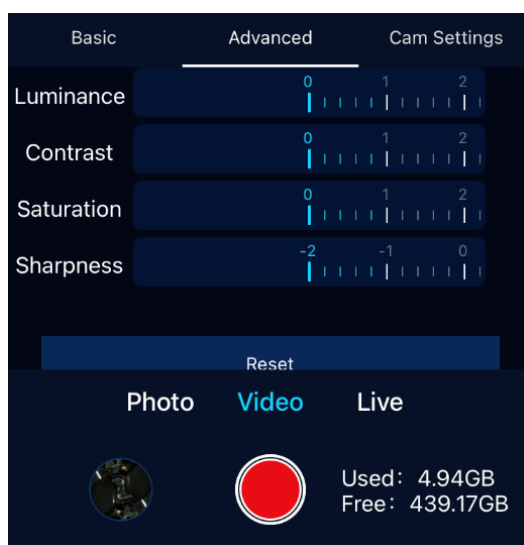
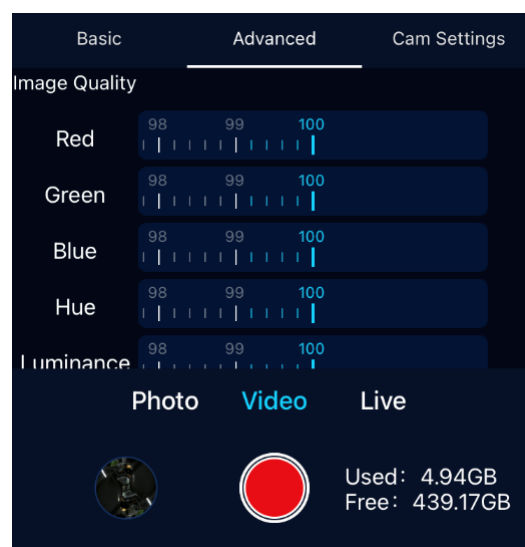
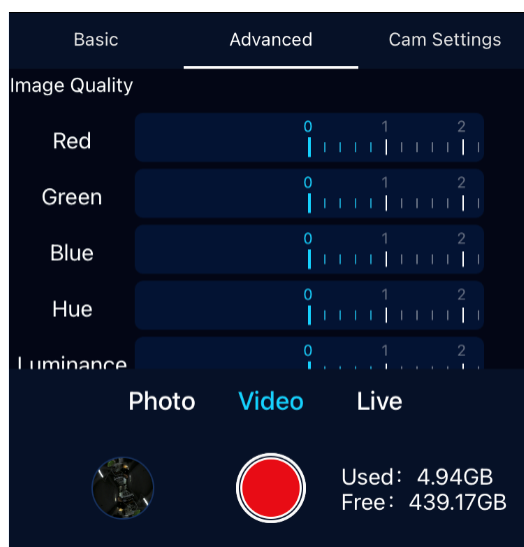
Lightness: value range [0,100]

Contrast: value range [0,100]

Saturation: value range [0,100]

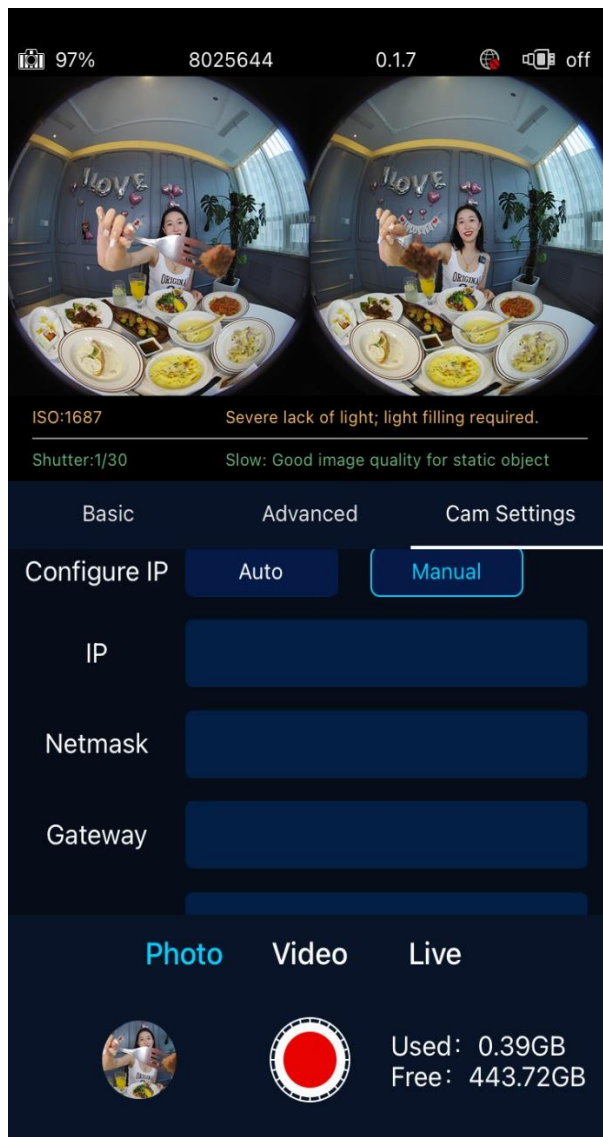
Sharpness level: the parameter range is [-2,2]

Reset: Sets each value to default.



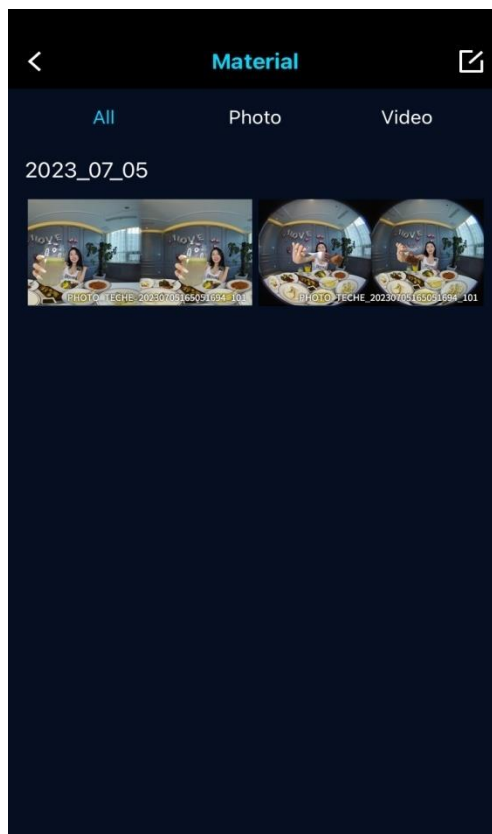
## 六. Camera Settings

IP Settings: By selecting "Fixed IP," you can configure a static IP address for the camera. Switching to "DHCP" will enable automatic IP address assignment. The default server port for the camera is 8080, and it can be changed if necessary. Note that the ports 1935 and 8554 are not allowed and you should specify a valid port number for the change.



## 七. Camera Playback

Clicking on the circular icon in the lower left corner, as shown in the image below, will take you to the playback interface. In the playback interface, you can review videos and photos. By clicking on the "Edit" button in the upper right corner of the playback interface, you can perform deletion operations on the materials. You can also select a specific video or photo for playback.





### FCC Caution:

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.

Any changes or modifications not expressly approved by the party responsible for compliance 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.

The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure condition without restriction.

#### Contact information

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