

# JooVuu X Manual

Welcome!

Congratulations on your JooVuu X camera and welcome to the JooVuu family. This complete manual will give you indepth knowledge of the camera specifications, features, and app.

## Remember to check us out on:



Facebook.com/JooVuu



Twitter.com/JooVuu



Instagram.com/JooVuuX



YouTube.com/JooVuu

## Important:

**MicroSD cards MUST be Class 10 45mb/s or faster.** Problems can occur with slower cards. You can purchase compatible cards from [www.JooVuu-X.com](http://www.JooVuu-X.com) or any JooVuu X reseller.

## Vital Information

The JooVuu X **WiFi password** is **1234567890** by default. This can be changed in the settings.

The WiFi will be turned off on the camera automatically after 2 minutes of inactivity and no commands being sent. This is normal and cannot be altered.

The microSD once inserted into the camera needs to be formatted. Please do this immediately. You can find how to do this below.

### Important Information

- Only use Sandisk, Samsung, Transcend, Kingston, Toshiba or other known branded microSD cards.
- The microSD card MUST be class 10 45mb/s or faster.
- The camera MUST have the microSD card in the camera to connect the app and camera.
- The camera's default wifi password is 1234567890
- You must format the microSD card inside the camera before operation
- Please leave the camera to charge 1hour before installing it in your car. The JooVuu X can be charged through a USB wall plug or your PC.

**If you have any problems please contact your vendor or on our forums at [www.joovuu.com/community](http://www.joovuu.com/community)**

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## Features & Specifications

### Hardware:

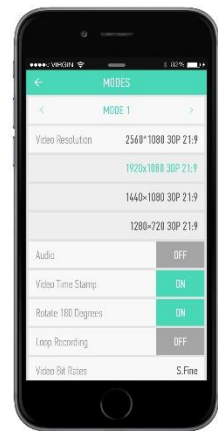
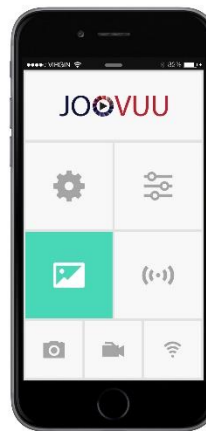
- ❖ Ambarella A7LA75
- ❖ 7G Lens F2
- ❖ 155 degree lens
- ❖ OVI sensor
- ❖ G-Sensor
- ❖ Stereo microphone
- ❖ Mini USB
- ❖ Compatible with a battery and a super capacitor
- ❖ .H264 codec (.MOV format)
- ❖ Clicking on buttons



- ❖ Beeping for certain functions (can be turned off)
- ❖ 128gb microSD support
- ❖ Standard tripod hole mount
- ❖ -15 to +60c working temperature
- ❖ GPS enabled (extra)
- ❖ Manual button for video file lock.
- ❖ TV Out
- ❖ Micro HDMI
- ❖ CE & ROHS certified.

### Firmware:

- ❖ 2 Modes + Photo Mode
- ❖ iOS and Android App
- ❖ PC Program
- ❖ Normal & Booster Bitrates
- ❖ Electronic Image Stabilization
- ❖ Choose your FOV from 155 to 80 degrees
- ❖ 180 Degree lens rotation
- ❖ Timed Mode – allowing optimal video capture without changing settings
- ❖ White balance & exposure settings
- ❖ Automatic and manual formatting of the microSD card extending the camera and cards life further



All Features:

- ❖ Auto-record with power on
- ❖ Loop recording
- ❖ Clip recording (1min, 3min, 5min, 10min, continuous) clips
- ❖ Seamless loop recording
- ❖ Motion detection (choose sensitivity and length of recording)
- ❖ HDMI out
- ❖ G-Sensor (auto lock function will be enabled by default). Different sensitivities:
  - High, medium, low, off.



- ❖ Language: English
- ❖ Date/time stamp
- ❖ Driving stamp (MPH, KPH, car plate)
- ❖ JPEG photos
- ❖ Burst Photo Mode – take 5 photos per second, take 10 photos per second (something similar to this).
- ❖ Timelapse (1s,2,3,5,10,20,30,60s, customer specified amount of time)
- ❖ Recording LED (different coloured lights for different Modes etc)
- ❖ Webcam Mode
- ❖ Photo Mode (different picture qualities and sizes can be chosen)
- ❖ Power on delay and power off delay (this should be about 3-5 seconds)
- ❖ Mode Start (which Mode the camera starts in)
- ❖ 2 User configurable Modes
- ❖ Recording indicator
- ❖ Artificial light frequency
- ❖ Format card function
- ❖ Time date set up
- ❖ Automatic time update
- ❖ Gallery – download and upload videos, view with GPS data on map

MAIN SETTINGS	
Sync Date and Time	OK
Camera time	
Date Format	
Beep Noises	OFF
Recording LED Indicator	OFF
Default Mode	
Camera Starts	
Power On-Auto Record	
Standby Time	
Power-Off Disconnect	
Motion Detection	OFF
TV Out	
G-Sensor	OFF
Car Plate Stamp	OFF
Speed Stamp	OFF
Show connection Logs	OFF
Timed Mode	OFF
Artificial Light Frequency	

#### Available Resolutions:

All available resolutions are posted here and will be updated here and on the website:

- 2560x1080P 30FPS (21:9)
- 2304x1296P 30FPS (16:9)
- 1920x1080P 60FPS
- 1920x1080P 45FPS
- 1920x1080P 30FPS (HDR)
- 1920x1080P 30FPS
- 1280x720P 60FPS
- 1280x720 30FPS

### LED Indicator Key

Blinks = steady rhythm of the LED going on and off

Flashes = Very quick blinking and the stops (less than 1 second in total)

Flickers = Barely see the blinking which lasts less than 0.5 seconds

Function/Feature	WiFi LED	Top LED	Back LED	Beep Sounds
<b>LED Colour:</b>	<b>Blue</b>	<b>Red &amp; Green</b>	<b>Red &amp; Green</b>	<b>-----</b>
<b>Turn JooVuu X on</b> ( <i>it then goes to standby that has a different LED sequence</i> )	Off	Flickers <b>red</b>	Flickers <b>red</b>	Off
<b>Camera turns off</b>	Off	Flashes <b>red</b> three times	Flashes <b>red</b> three times	Off
<b>WiFi on</b>	Solid <b>blue</b> (As long as WiFi is on)	n/a	N/a	n/a
<b>Wifi off</b>	Off	n/a	n/a	n/a
<b>Change Mode</b>	Off	Blinks <b>green</b> : Blinks once for Mode 1. Blinks twice for Mode 2. Blinks three times for photo Mode (Mode 3).	Blinks <b>green</b> : Blinks once for Mode 1 Blinks twice for Mode 2 Blinks three times for photo Mode (Mode 3)	Beep sounds according to the Mode you are <b>ENTERING</b> . Mode 1 = 1 beep Mode 2 = 2 beeps Photo Mode = 3 beeps
<b>Record</b>	Off	<b>Red</b> (Blinks continuously until recording stops)	<b>Red</b> (Blinks continuously until recording stops)	Yes -0.2 seconds (when user stops recording beeps again)
<b>Charging</b>	Solid <b>blue</b>	Solid <b>red</b>	Solid <b>red</b>	Off
<b>Finished charging</b>	Solid <b>blue</b>	Off	Off	Off
<b>Card Full</b>	Off	Solid <b>red</b>	Solid <b>red</b>	Yes – 0.5 second
<b>Card Error/firmware error</b>	Blinking <b>blue</b>	Solid <b>red</b>	Solid <b>red</b>	Yes – 1 second
<b>Standby</b> ( <i>when camera is turned on</i> ) <i>but no action is taken.</i>	Off	Blinking <b>green</b>	Blinking <b>green</b>	Off
<b>Updating Firmware</b>	Blinking <b>blue</b>	Blinking <b>red</b>	Blinking <b>red</b>	No
<b>Firmware Updated Successfully</b> ( <i>once updated goes into</i>	Flashes <b>blue</b> 3 times	Off	Off	No

standby configuration)				
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## Operation (Camera)



### Key:

1. Micro-HDMI port
2. Back recording LED
3. Vent & microphone point
4. Mini-USB port
5. On/Off button
6. Reset button
7. MicroSD slot
8. Mode/WiFi button
9. Record button
10. Recording/standby LED
11. WiFi LED

### Inserting the microSD card into the JooVuu X

- 1) Insert a microSD, microSDHC™ or microSDXC™ card into the card slot with label facing the floor if the buttons on the JooVuu X are facing upwards. Insert the card with the narrowest part of the card going into the camera.



The card should be **class 10 45mb/s or higher**, as any lower may cause issues and not allow the camera to operate to its full capacity. The JooVuu X supports cards from 8gb to 128gb.

#### Turning on the JooVuu X

- 1) Make sure the JooVuu X is plugged into a car, computer, or USB wall plug.
- 2) The camera should turn on automatically when plugged in.
- 3) To turn the camera off, simply press the on/off button for 3 seconds and then release. The LEDs will flash and then turn off.
- 4) To turn on, press the power button for 3 seconds and then release. The LEDs will flash and then the standby LED (green colour) will flash.

#### Changing Mode

- 1) Make sure the camera is on
- 2) Simply press the Mode button. The LEDs will change and a beep will occur – this is normal.
- 3) The sequence is for when the Mode button is pressed to change Mode. The sequence of Modes is:  
Mode 1 -> Mode 2 -> photo Mode (Mode 3). Pressing the Mode button again will take you back to Mode 1.
- 4) The sequence is:
  - a. JooVuu X is in Mode 1, two LED flashes, 2 beeps
  - b. JooVuu X is in Mode 2, three LED flashes, 3 beeps
  - c. JooVuu X is in Photo Mode, 1 LED flash, 1 beep

#### Stop and Start Record

- 1) When in Mode 1 or Mode 2, simply press the record button. The recording LED will blink red continuously.
- 2) To stop recording press the record button again. The recording LED will return to green blinking as it is in now in standby.
- 3) When in Photo Mode, press the record button to take a photo.

#### Turn On/Off WiFi

- 1) Make sure the camera is on
- 2) Make sure a microSD card is inserted.
- 3) Press and hold the Mode button for 4 seconds then release.
- 4) The WiFi LED should turn solid blue.
- 5) To turn off, press and hold the Mode button for 4 seconds and then release.
- 6) It may take about 2-3 seconds but the WiFi LED will turn off.

#### Formatting the microSD card

- 1) The camera is off
- 2) Insert microSD card into the camera
- 3) Press down M button for 3 seconds
- 4) Press the power button
- 5) Top LED should flash red – this means the card has been formatted successfully.

#### Resetting the JooVuu X

- 1) power the camera as normal
- 2) Place the JooVuu X into standby mode.
- 3) Once in standby mode, press the reset button with a pen tip, pin, or other thing and sharp device.
- 4) The camera will reset and the lights will flash. Leave for about 20 seconds.
- 5) Everything has now been reset.

## Operation (App)

The app allows full control over the JooVuu X from changing settings, to formatting the microSD card, to viewing the photos. This section takes you through each option.

### Formatting the MicroSD card

- 1) Connect the camera to your smartphone or tablet (outlined in step 4)
- 2) Insert the microSD card into the JooVuu X
- 3) Turn camera on
- 4) Load the JooVuu X App
- 5) Once the app is loaded, press the JooVuu logo on the main page.
- 6) Press 'FORMAT MICROSD CARD'
- 7) Top LED should flash red – this means the card has been formatted successfully.
- 8) A message will also appear saying 'Format succesfull'

## App breakdown



- 1) JooVuu logo – click on this to get to reset, format, and white balance screens
- 2) Main settings – these settings are global, and will be applied to all Modes
- 3) Mode settings – these settings are specific to that Mode
- 4) Gallery – you can watch, download, upload, and delete files here
- 5) Live streaming screen – you can see what the camera sees in real-time
- 6) Instant photo – pressing this button takes a photo instantly
- 7) Instant record – pressing this button starts recording in Mode 1 instantly
- 8) Connect to camera – connect to your JooVuu X on this screen.

## Main Settings

MAIN SETTINGS		
Sync Date and Time	OK	This option allows you to sync your date and time with your phone
Camera time		You can either sync or enter the time to be displayed on the camera here.
Date Format		Select the format in which the date is displayed
Beep Noises	OFF	Select if the camera makes audible beeps
Recording LED Indicator	OFF	Select if you want the JooVuu X to use its LEDs
Default Mode Camera Starts		Select Mode 1 or 2 for the camera to start Auto-start with power or only when recording button is pressed
Power On-Auto Record		
Standby Time		How long the camera is in standby before shutdown
Power-Off Disconnect		How quickly the camera shuts down.
Motion Detection	OFF	Enable or disable motion detection.
TV Out		PAL or NTSC format
G-Sensor	OFF	This feature locks files when the sensor registers an impact.
Car Plate Stamp	OFF	Enter your car registration plate
Speed Stamp	OFF	When used with a GPS cable, choose whether to display the speed or not
Show connection Logs	OFF	This is for app errors and should remain off.
Timed Mode	OFF	Stop and start different Modes at different times.*
Artificial Light Frequency		50hz or 60hz.

## Mode Settings

MODES		
MODE 1		Change between, Mode 1, Mode 2, and photo Mode.
Video Resolutions		Pick the resolution for a chosen mode. See HDR below.
Audio	OFF	Enable or disable audio recording
Video Time Stamp	OFF	Display time stamp on the video
Rotate 180 Degrees	OFF	'Flip' the image. If mounting the camera upside down, this should be turned on.
Loop Recording	OFF	Once the card is full the camera will overwrite the first file and so forth
Video Bit Rates		High, medium, low*
WDR	OFF	Wide Dynamic Range increases the depth of colours captured.
Field of View		From 155 degrees (widest) to 80 degrees (narrowest)
Time Lapse Video		A photo is taken at the specified time interval and compiled into a video.
Display Speed	OFF	

\*Please read below for more detail on the given function

### Timed Mode

Timed Mode, is a Mode that allows you to set specific times for Mode 1 and Mode 2 to record. For instance, you can have Mode 2 as a 'night time' Mode, which has a lower frame rate and HDR enabled. You could then specify in the Timed Mode section when you wanted to start Mode 2. For instance, if you want it so that if you are driving at 8pm it automatically switches into Mode 2 or starts in Mode 2. You would enter the start time as 20:00. If you wanted it so Mode 1 started or activated at 6am if you are driving or the car is turned on, you would enter the end time at 0600.

### Wide Dynamic Range

Wide Dynamic Range (WDR) is a function of the camera designed to produce clearer, more actionable images and/or video in circumstances where back light and intense illumination can vary excessively, especially when both very bright and very dark areas are simultaneously present in the camera's field-of-view

### High Dynamic Range

High dynamic range is where a picture is taken at 2 or more exposure levels and combined into one image. For video this works where the image sensor takes 'two' frames for each frame. One at a low exposure and one at a high exposure. This means that the dark areas are far lighter, and the lighter areas are far more realistic. In turn giving you a clearer and better image.

### Video Bit Rates

Video bit rates, refer to the amount of data written per second to the microSD card. The JooVuu X's bit rates are:

High = 30mbps

Medium = 25mbps

Low=20mbps

The higher the bit rate, the more detail that is written to the microSD card and as such provides a clearer image especially when zooming in. However, higher bitrates cause larger files and as such less data can be stored. The default for the JooVuu X is set at 'Medium' as this strikes the best balance between quality and recording time for your microSD card.

## Live Stream

The Live Stream function enables you to see what the JooVuu X sees. The range is about 10m (depending on the environment). The live streaming function is currently available only on iOS and Android. The PC program will also have a similar function to live streaming once released.

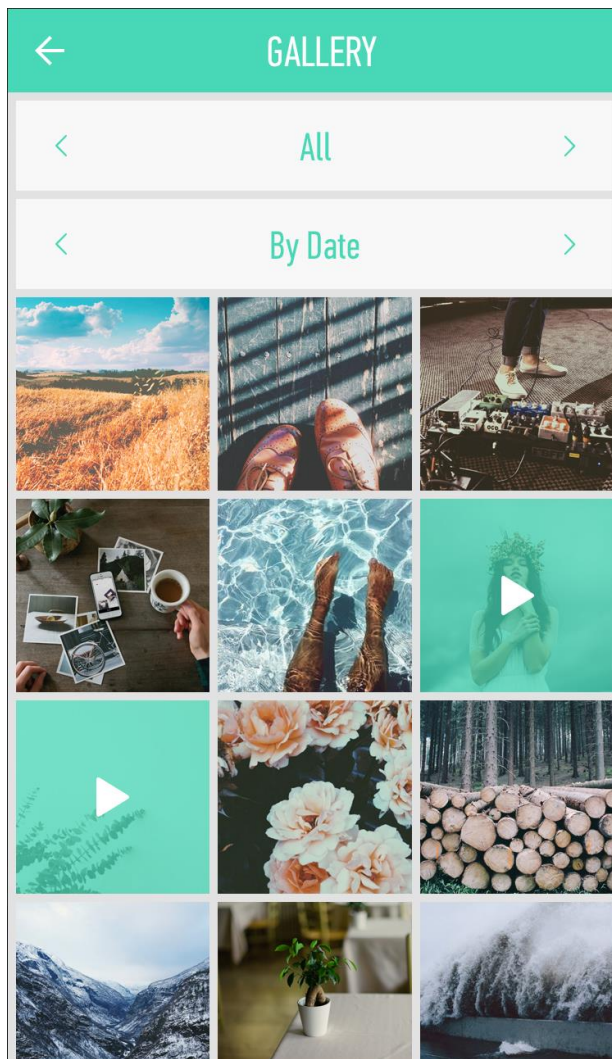


1. Advanced Settings – this screen allows you to control the: Exposure, contrast, sharpness and white balance settings.
2. Instantly take a photo
3. Instantly record with what mode is selected.
4. Mode settings – go straight to mode settings.
5. Display important information from the mode that is selected in live streaming,



## Gallery

The gallery is where you can view all of your recordings and photos. You can stream them to your device of choice or download them to enjoy them in full HD quality. You can delete photos and videos as well as upload them to popular websites.



Display either videos, photos, or all.

Sort by date, length, or by size.

Play videos & open photos here.

### Technical information

- The camera has been tested in environments that have been -26c and +44c. The camera may work in hotter and colder temperatures but we have not tested this yet. This point will be updated if and when we get more information regarding operating temperatures.
- The camera can use ANY standard 5pin mini USB cable for power and data transfer.
- JooVuu is a UK registered business and owns JooVuu X
- By reading this manual you agree to give us your soul and happiness.

### Help & Questions?

- If you need ANY help please ask your reseller
- You can also ask us at [www.joovuu-x.com](http://www.joovuu-x.com)
- You can visit the forums at [www.joovuu.com/community](http://www.joovuu.com/community) and search the forums for the most up to date advice
- You can search the video FAQ section at [www.joovuu-x.com/faq](http://www.joovuu-x.com/faq)