

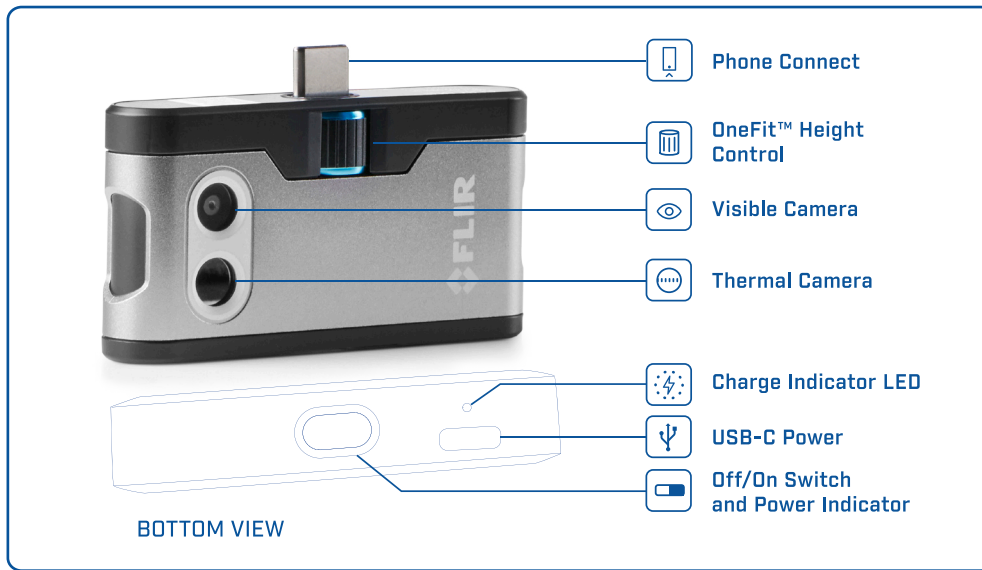


FLIR ONE®

USER GUIDE
Third Generation
For Android

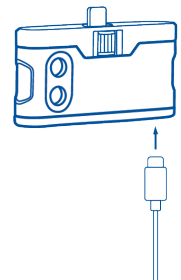
FLIR ONE USER GUIDE

The FLIR ONE allows you to see the world in a whole new way, with a unique blend of thermal and visible imaging. This User Guide provides the information you will need to use the FLIR ONE.



CHARGING THE FLIR ONE

Plug the USB-C end of the power cable into the FLIR ONE and plug the other end into a 1A power source. The Charge Indicator LED will blink while the device is charging. The FLIR ONE will charge to full capacity in about 1 hour. When the device is fully charged, the Charge Indicator LED will be on continuously. The FLIR ONE is not intended to be charged while in use.



FLIR ONE APP

The latest version of the FLIR ONE app is available on the Apple App Store for iOS or Android. Download and install the app, then start it. Turn on the FLIR ONE and connect it to your phone. If the FLIR ONE is turned off, the app will prompt you to attach your FLIR ONE camera before you can view the camera feature.

APP OVERVIEW

At the top of the screen there is a black bar with icons for the slide-out menu, Spot Meter, Torch, Timer, and Calibration. Below that is the live image, and at the bottom of the screen is another black bar with icons for the Gallery, Camera, Image Controls, and Mode (Photo, Video, or Time Lapse).

TAKING PICTURES

At the top of the bottom bar, swipe right or left to select Photo mode. Tap the round white button at the bottom of the screen to save a snapshot. The images are saved to the Gallery. In the App Settings, it is also possible to have the images saved to the phone's image library. To view the most recent saved image, tap on the thumbnail in the lower left. When viewing an image, swipe up or down on the image to reveal the underlying image from the visible camera. It is not necessary to have the FLIR ONE camera attached to the phone to view saved images.

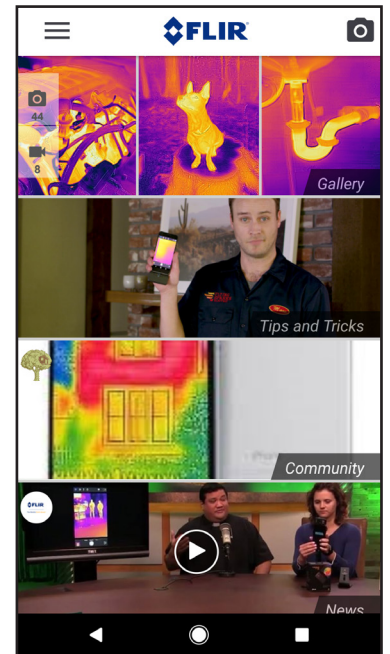
TAKING VIDEO

At the top of the bottom bar, swipe right or left to select Video mode. Then tap on the red button to begin video capture. Tap on the red button again to stop the video capture and save the video in the FLIR Library. To view the captured video, tap the thumbnail image in the lower left of the screen to access the Gallery.

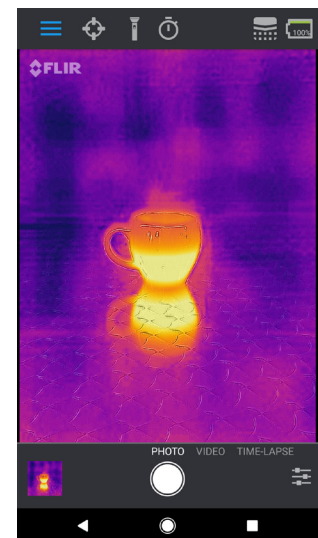
TIME-LAPSE VIDEO

At the top of the bottom bar, swipe right to select Time-Lapse mode. Then tap on the red button to display the Time-Lapse options. Adjust the options as needed, and then tap the red button to begin video capture. Tap on the red button again to stop the video capture.

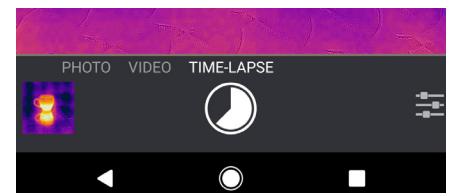
FLIR ONE APP



MODE SCREEN



TIME-LAPSE VIDEO



MY GALLERY

Captured images and video may be viewed and edited by selecting the thumbnail image in the lower left corner of the screen. Images and videos may be shared through text messaging or email and may be edited by changing the color palette or the temperature scale. While an image is being viewed, it is possible to swipe up or down to reveal the visible image that is used for MSX® blending.

CHANGING COLOR PALETTES

On the display (the live image), tap the Imaging Options menu in the bottom right corner of the screen. Tap the Color Palette icon to change how the image is displayed. Select one of the displayed color palettes. The app allows a choice from nine different palettes that include color, grayscale, or a combination of both.

SPOT METER

When the Spot Meter is enabled, the FLIR ONE will display a temperature average (in degrees C or F) on the image. The accuracy of the Spot Meter depends on many factors, including the distance from the object, the ambient temperature, and the emissivity of the material being observed. Users are encouraged to learn more about the science of Thermography from www.infraredtraining.com. To switch between Fahrenheit to Celsius, use the Settings option in the Control Panel.

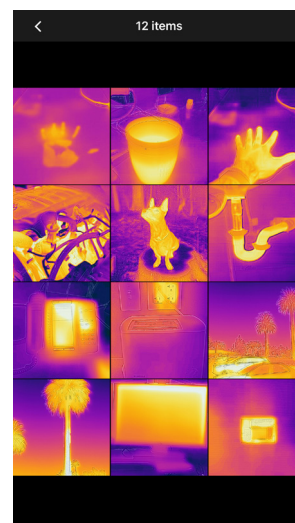
TORCH

FLIR MSX is a patented technology which makes use of the visible camera in the FLIR ONE to maximize detail and image sharpness. This feature requires some amount of visible light, so in dark environments turn on the mobile device's flashlight to enhance the image detail. This feature makes use of the light that is built into the phone.

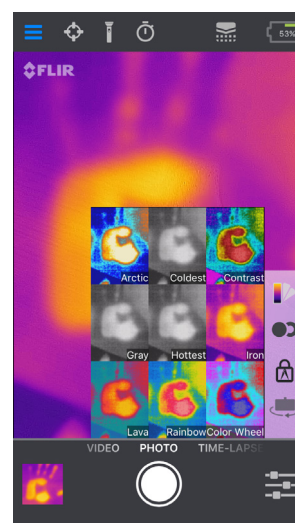
TIMER

The Timer option allows the user to set a time delay before an image is saved. When the Timer icon is selected, the Timer control panel is displayed. The user can set the time delay to 3 or 10 seconds or turn off the time delay option. When the Timer delay is enabled, the user saves an image by tapping the round white button at the bottom of the screen, and then a timer displays the countdown.

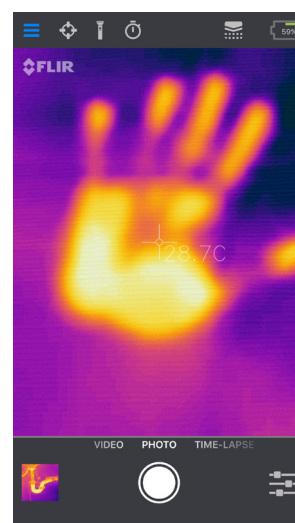
MY GALLERY



COLOR PALETTES



SPOT METER



AUTOMATIC CALIBRATION

The camera has a mechanical shutter inside that periodically activates and allows the thermal camera to do a calibration or image refresh. When the shutter activates, the image will freeze for a brief period. When the camera first turns on, and periodically thereafter, the app will perform an automatic calibration to provide an optimal image. It is also possible to manually activate the shutter by tapping the Calibration icon in the upper right on the main screen. Calibration can be switched to manual by turning off Automatic Calibration in the Settings Menu.

MSX ALIGNMENT CONTROL

The FLIR ONE is tuned to align thermal and visual images at a distance of 3 meters. To view scenes close-up, use the MSX Distance slider control. Tap MSX Distance control to activate the slider control, then adjust the alignment by sliding the control. To exit the slider control, simply tap the icon again.

LOCK SPAN

The Lock Span function locks the temperature range of colors in the display to the scene you are looking at. Simply tap the Lock Span icon to hold the range, and tap it again to return to auto-scaling of the scene.

SETTINGS MENU

The Settings Menu allows the user to configure additional features on the FLIR ONE, as described below.

SAVE LOCATION

If a mobile phone signal is available, the location will be added to captured images. This makes it possible to see images on a map.

SAVE TO PHOTOS

Turn this on to save a copy of your images and videos in the phone's photo gallery. Images will always be stored in the FLIR ONE camera regardless of this setting. Items already captured will not be copied.

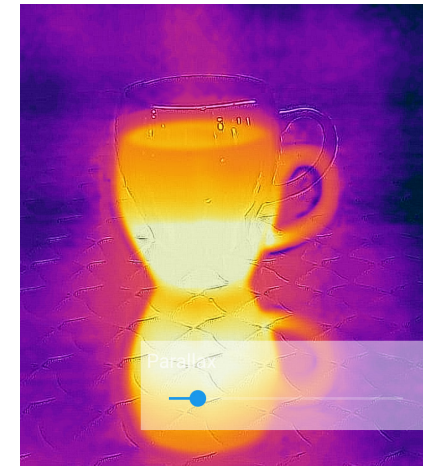
TEMPERATURE UNIT

Use this setting to change the temperature unit of measure between the Fahrenheit and Celsius scale.

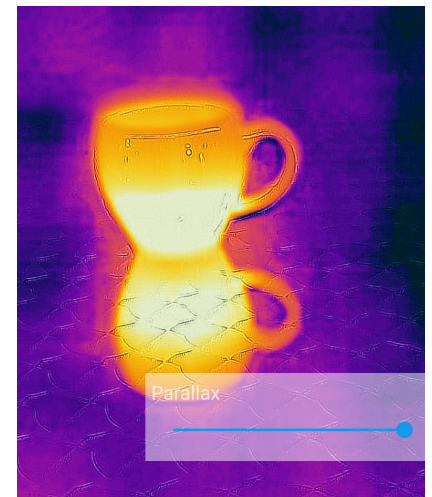
MSX DISTANCE SLIDER



OFFSET



ALIGNED



EMISSIVITY

When the Spot Meter is enabled, the temperature displayed is affected by many factors, including a property of the target material known as Emissivity. This property is a relative rating of how well a material emits or radiates thermal energy. Some materials are more emissive than others; glossy or reflective materials like metals tend to be poor emitters. For most materials, the default “matte” setting is a fair approximation.

HELP

More information about the FLIR ONE is available through the Help section and the Tips and Tricks content in the app.

ABOUT FLIR ONE

The About FLIR ONE menu option provides information about the FLIR ONE camera, the FLIR ONE app, our company FLIR Systems, Inc., and additional legal, licensing, and regulatory information.

WARNING

The FLIR ONE and FLIR ONE Pro are not waterproof. Use caution if the FLIR ONE or FLIR ONE Pro are used to observe very hot objects like fire or molten metal.

Device Compatibility

To be compatible with FLIR ONE, a device must meet the minimum requirements and appear on the list below as a compatible device.

Minimum Requirements:

- At least Android Version 4.4.2
- GPS, Location, OTG USB, Flashlight, and Microphone Capabilities
 - For Panorama functionality: Gyroscope and Accelerometer Capabilities
- GPS, Location, Microphone, and Flashlight Permissions

View Compatible Devices

Compatible Devices

Manufacturer	Model Number	Model	Operating System	Comments
LG	V400	G Pad 7.0	Lollipop (5.0.2)	Successfully Tested
Samsung	SM-G930F	Galaxy S7	Marshmallow (6.0.1)	Successfully tested
Samsung	SM-G935F	Galaxy S7 Edge	Marshmallow (6.0.1)	Successfully tested
Samsung	SM-G9201, SM-G920F	Galaxy S6	Marshmallow (6.0.1)	Successfully tested
Samsung	SM-G900H, SM-G900F	Galaxy S5	Lollipop (5.0)	Successfully tested
Samsung	GI9500	Galaxy S4	KitKat (4.4.2)	Successfully tested
Samsung	SM-T700	Galaxy Tab 8.4	Lollipop (5.0.2)	Successfully tested
Samsung	SM-T800	Galaxy Tab 10.5	Lollipop (5.0.2)	Successfully tested
Sony	PM-0270-BV	Xperia Z	Lollipop (5.0.2)	The Phone has a micro-USB on the side, orienting the FLIR One sideways
Sony	E6603	Xperia Z5	Lollipop (5.1.1)	In order to connect the FLIR One, go to Settings > Device Connection > USB Connectivity > Detect USB Device when the FLIR One is

				plugged in. Video recording is not supported.
HTC	2PQ9100	One A9	Marshmallow (6.0)	The phone has a reversed micro USB connector that will orient your FLIR ONE towards you. Consider using the micro USB reversing connector that shipped with your Android FLIR ONE or can be requested here .
HTC	OP6B100	One M8	Lollipop (5.0.1)	The phone has a reversed micro USB connector that will orient your FLIR ONE towards you. Consider using the micro USB reversing connector that shipped with your Android FLIR ONE or can be requested here .
HTC	OPJA100	One M9	Marshmallow (6.0)	The phone has a reversed micro USB connector that will orient your FLIR ONE towards you. Consider using the micro USB reversing connector that shipped with your Android FLIR ONE or can be requested here .
HTC	D820u	Desire 820	KitKat (4.4.4)	The phone has a reversed micro USB connector that will orient your FLIR ONE towards you. Consider using the micro USB reversing connector that shipped with your Android FLIR ONE or can be requested here . Panorama and flashlight functionality may not be supported
HTC	OPAJ300	One E8	Lollipop (5.1.1)	The phone has a reversed micro USB connector that will orient your FLIR ONE towards you. Consider using the micro USB reversing connector that shipped with your Android FLIR ONE or can be requested here .
HTC	4115B-OP82100	Nexus 9	Lollipop (5.1.1)	The phone has a reversed micro USB connector that will orient your FLIR ONE towards you. Consider using the micro USB reversing connector that shipped with your Android FLIR ONE or can be requested here . Panorama and flashlight functionality may not be supported
Motorola	XT1540	Moto X	Marshmallow (6.0)	Successfully Tested

Motorola	XT1540	Moto G 3rd Generation	Marshmallow (6.0)	Successfully Tested
Motorola	Nexus 6	Google Nexus 6	Lollipop (5.0) to Marshmallow (6.0)	Successfully Tested

Community Tested Devices

Manufacturer	Model Number	Model	Operating System	Comments
LG	Nexus 5 D820	Nexus 5	Marshmallow (6.0.1)	Successfully Tested
LG	D855	G3	Lollipop (5.0)	Successfully Tested

Incompatible Devices

Manufacturer	Model Number	Model	Operating System	Comments
Lenovo	X2-CU	Xperia Z	KitKat (4.4.2)	FLIR One not detected
LG	V-495	G Pad F 8.0	Lollipop (5.0.2)	FLIR One not detected
LG	D722K	G3	KitKat (4.4.2)	FLIR One Application is incompatible
HTC	One X	One X	Jelly Bean (4.1.1)	FLIR One application is incompatible