MIOPS MOBILE REMOTE

Users Manual

V0.6

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1. Introduction

Thank you for choosing MIOPS Mobile Remote. MIOPS Mobile Remote enables you to trigger your camera or flash unit using your smartphone. It offers different modes of operation to reflect your creativity in your photography. MIOPS Mobile Remote works with a smartphone app and uses the capabilities of your smartphone to trigger your camera in different ways.

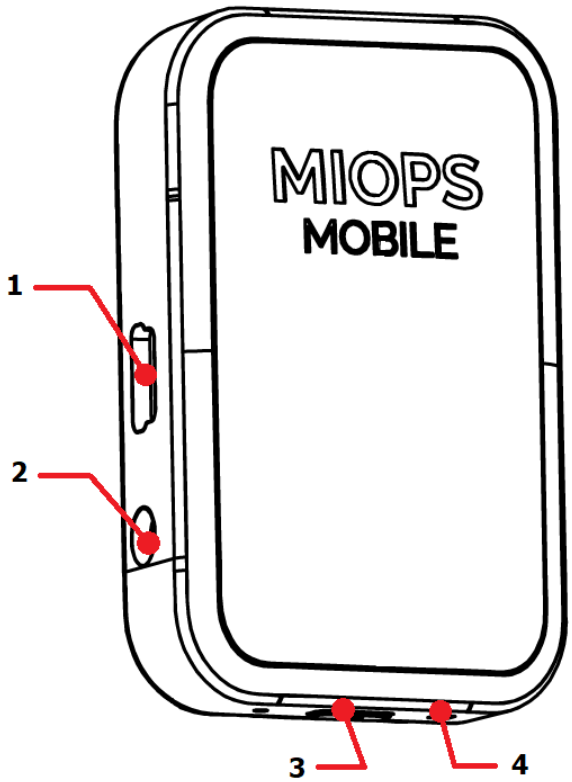
MIOPS Mobile Remote is brand and model independent solution. If your camera has a shutter release port, you can use MIOPS Mobile Remote. It will communicate with your smartphone over Bluetooth connection and trigger your camera or flash unit using a cable connection. The cable of MIOPS Mobile Remote can be changed, so you use it with different cameras.

The device is supported with a smartphone app. The app is available on AppStore and Google Play Store. You can download and install it for free. The name of the app is “MIOPS MOBILE”. The app enables you to switch between different modes and adjust the parameters of the modes. MIOPS Mobile Remote will communicate with your smartphone over Bluetooth.

2. Getting Started

a. Technical Specifications

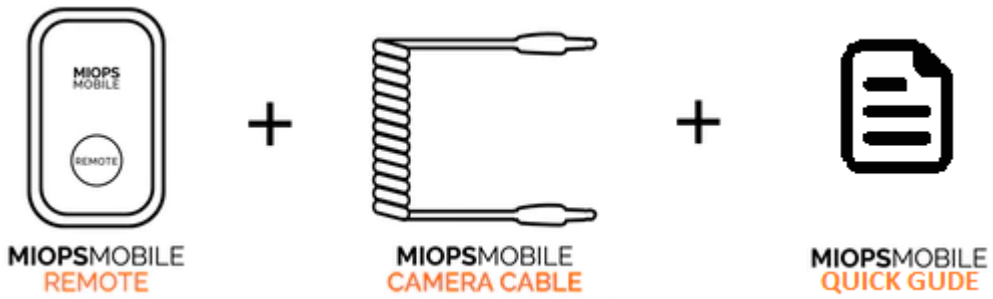
Model Name: MIOPS Mobile Remote
Dimensions: 27 mm x 17 mm x 63 mm
Weight: 77 grams
Battery: 250 mAh Li-Polymer
Connectivity: Bluetooth 4.0



1. USB Port
2. Camera Connection Port
3. On/Off Button
4. Status LED

b. Package Content

The MIOPS Mobile Remote will be delivered in a single box, with everything you would need. The package will contain the following items:



If you are missing one of the items, please contact your point of purchase. The camera connection cable will be of the type you have selected. For a list of supported cameras, you can visit www.miops.com/cablelist

c. Before First Use

MIOPS Mobile Remote is powered with a Li-Polymer battery. It may not be fully charged before the first use. You can charge it on any USB power source with the provided USB cable. Charge the MIOPS Mobile for at least two hours before the first use.

MIOPS Mobile Remote has no user serviceable parts inside. If you think that there is a problem with your unit, do not dissemble it. This will void your warranty. In such a case, contact your point of sale to get customer assistance. The unit is not water proof. You need to protect the unit from liquids, extreme heat and moisture. If you are not going to use it for a long time, make sure you charge the battery to the fullest first. Keeping the battery at low charge for a long time can reduce the performance of the battery. Store it in a dry place with no moisture.

MIOPS Mobile Remote has a built-in hot shoe. It is designed to be compatible with standard hot shoes. The hot shoe is used for mounting purposes only. It has also a thread-in socket. You can use that to mount MIOPS on a tripod.

MIOPS Mobile Remote uses the shutter release port of your camera. The connection cable must be connected from MIOPS Mobile Remote to that port on your camera. If your camera does not have one, it is not compatible with MIOPS Mobile Remote.

d. Visual Aids

MIOPS Mobile Remote has some visual aids to provide functional status information to the user. These aids will help you to quickly understand the status of your device.

Here is the list of visual aids associated with different function:

- Power On: Press the On/Off switch for a second. The LED frame will fade in and then dim.
- Power Off: Press the On/Off switch for a second. The LED frame will glow and then fade out.
- Firmware Upgrade Mode: Press the On/Off switch for 3 seconds. The Status LED will glow GREEN.
- Trigger: The LED frame will glow with each trigger.
- Bluetooth connection established: The Status LED will blink GREEN.
- Bluetooth connection lost: The Status LED will be RED.
- Charging: If the device is turned off, the Status LED will be RED. When the charging is complete, the Status LED will be GREEN.

3. MIOPS Mobile App

a. Installing the App

MIOPS Mobile Remote requires the dedicated smartphone app to work. The app is available for both iOS and Android devices. You can download the app from AppStore and Google PlayStore with the name “MIOPS Mobile”. If you cannot find the app in the market, it is probably due to your device being not compatible with the app requirements.

The iOS application requires iOS 8.0 or later. The app is available for iPhone, iPad and iPod Touch. Also, your smartphone must have at least Bluetooth 4.0. The Android application requires version 4.3 or higher. Again, Bluetooth 4.0 is required for your smartphone. If you phone does not meet the criteria, please try to update the operating system.

MIOPS Mobile app is free of charge. It will be updated to reflect new features and modes. The app does not need an internet connection to work. It communicates with MIOPS Mobile Remote over Bluetooth connection.

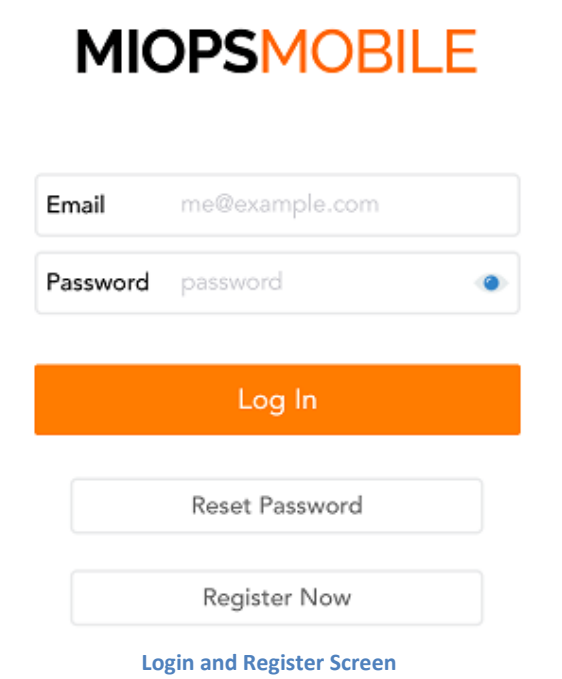
Once you install the app, you will see the “MIOPS MOBILE” logo on your screen. The logo is the same for iOS and Android app. The app provides the interface to the settings of MIOPS Mobile Remote. It enables you to switch between modes of operation, change device parameters, a short tutorial about the device and even send feedback to the customer support.

The app has been designed to make MIOPS Mobile as less smartphone-dependent as possible. In some modes like Basic Time Lapse, Long Exposure Time Lapse, Bulb Ramping Time Lapse, the process will continue even if you take your smartphone away. Once you start the process, all required information will be passed to MIOPS Mobile Remote and then it will take care of the rest. This way, a long time lapse session will not occupy your smart phone. MIOPS Mobile Remote will be able to complete the process with the same accuracy.

On the other hand, some modes require constant communication with your smart phone. Some of them are Sound, Vibration and Motion modes. This mode will stop running if you take your smartphone away or the Bluetooth connection is somehow lost.

b. Connection Type

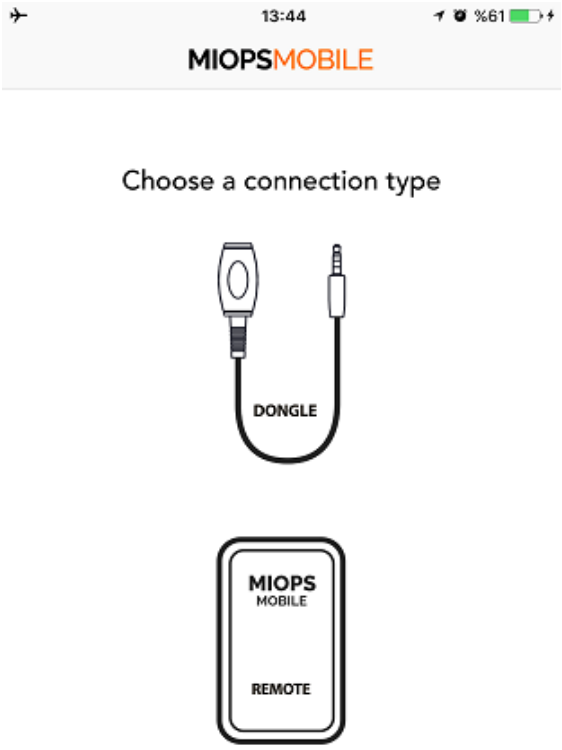
MIOPS Mobile Remote requires you to create a user account and to login to use the app. You can create an account over the app right away. Once you run the app for the first time, it will ask you whether you have a user account or not. If you have one, you can go ahead and log in.



Login and Register Screen

If you don't have a user account, you can touch the "Register Now" button and a form will be displayed. You can create a user account by providing some basic information. The registration and log in requires an internet connection. Once you log-in you don't need to have an internet connection to use MIOPS Mobile Remote.

After you successfully login, the app will show a 'Connection Type' screen. The MIOPS MOBILE app is used for both MIOPS Mobile Remote and MIOPS Mobile Dongle. If you are using the MIOPS Mobile Remote, select 'Bluetooth' connection. If you are using the app with 'MIOPS Mobile Dongle', then select the 'Cable' connection



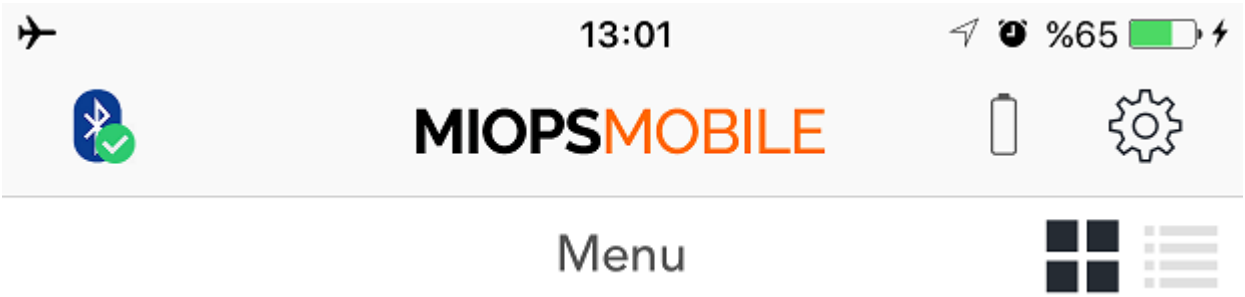
Connection Selection Screen

After you select the 'Bluetooth' option, the app will ask for permission to access the Bluetooth services of your smartphone. You need to grant access to connect to your MIOPS Mobile Remote.

Once you grant access, the app will list the nearby MIOPS Mobile Remote devices. If your device is listed, you can just select it to connect using the app.

If the app is not listed, you can touch the 'Scan' sign at the right top of the screen. This will scan the Bluetooth range for any MIOPS Mobile Remote device. If your device is still not listed, make sure that it is turned on.

Once you successfully connect to the MIOPS Mobile Remote, the Menu screen will appear. On top left of the screen, you will see a small icon which indicates the current type of the connection. If there is a successful Bluetooth connection between your smartphone and MIOPS Mobile Remote, you will see a Bluetooth icon with a green check on it. If the Bluetooth connection is lost for some reason, there will be a red sign on the Bluetooth icon.



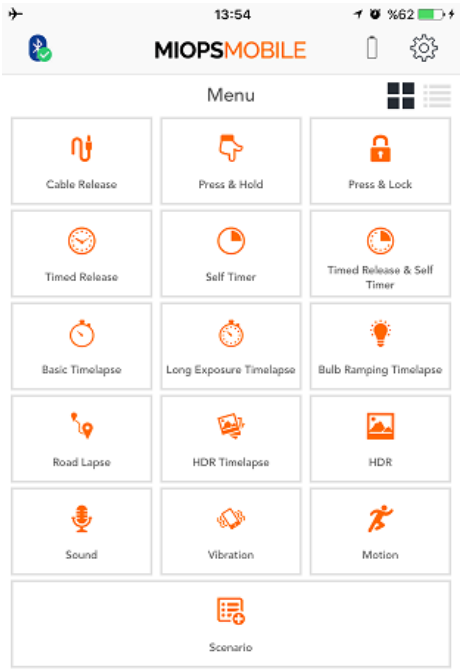
Bluetooth Icon with Green Check

You can switch between Bluetooth and Cable connection. In order to do that, just touch the Bluetooth icon at the left top of the screen. You will be asked if you want to end the Bluetooth connection between MIOPS Mobile Remote and your smartphone. If you confirm, you will be taken back to the Connection Selection screen. Here you can start over and select the connection type.

IMPORTANT NOTE: ***The 'Cable Connection' will only work if you are using MIOPS Mobile Dongle. The MIOPS Mobile Remote requires 'Bluetooth' connection to connect your smart phone. MIOPS Mobile Remote will not work if you select cable connection.***

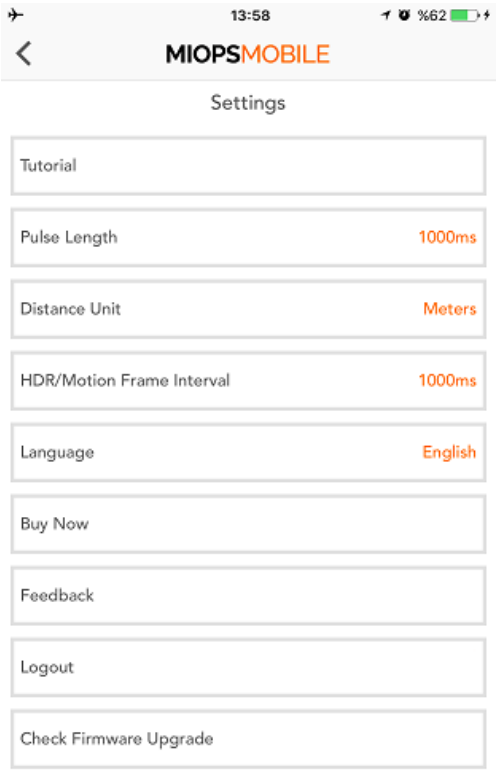
The smartphone app offers the modes with the Menu screen. On this screen, you will find the icons of available modes. The modes are listed in a logical order starting with cable release modes, timer and time-lapse modes and finally the creative modes.

The icons cover the screen in tiles version. If you want to switch to a list mode, you can simply touch the list icon at the right top of the screen. In the list mode, the modes will be given in a list. You can switch back to tiles mode, by touching the tiles again at the same spot.



Menu Screen

The menu screen has also a link to the Settings. If you touch the gear icon at the right top of the screen, you will be navigated to the Settings menu. The Settings menu enables you to change some device parameters, so MIOPS Mobile Remote will work exactly as needed.



Settings Screen

Tutorial: The tutorial plays a short video to introduce you the basic requirements to use MIOPS Mobile Remote. You can close it anytime by touching the "Close" sign at the bottom of the screen.

Pulse Length: MIOPS Mobile Remote triggers your camera by shorting the terminals of the shutter release port. The Pulse Length parameter defines for how long the terminals will be shorted. Some cameras may require a longer pulse to be triggered. In some cases, you may want to shorten the pulse length. If you want to change the pulse length, just touch the line and a selection window will pop-up. You can select one of the five available pulse lengths. The durations are given in milliseconds.

Distance Unit: The Road Lapse mode requires you to set the distance unit. You can either select Meters or Feet. The Road Lapse mode will use that unit to trigger your camera as you travel on the road.

HDR/Motion Frame Interval: The HDR and Motion modes are designed to trigger your camera consequently. You can define a certain interval between each frame. MIOPS Mobile Remote will wait for the specified duration before triggering again. You can select one of four different durations.

Language: The app will be available in several languages. You can use the app in one of the available languages. The default language of the app is English.

Buy Now: This link will take you to the web site of MIOPS products, where you can buy MIOPS products, see product specifications and much more.

Feedback: This form has been designed you to enable to report any problem, ask questions or even request a new feature about MIOPS Mobile. The form enables you to add pictures to explain the issue better. The form will collect basic info about your smartphone and app version. Once you fill in the form, you can touch the "Mail" sign at the right top of the screen. This will turn the form into a ready to send email. You can send the email with your email client.

c. User Interface

The user interface is built on several widgets, which allow you to change parameters and values easily. You can change the values of parameters by using the touch screen of your smartphone. There are a few different widgets that you need to get familiar with.

Basic Action Button

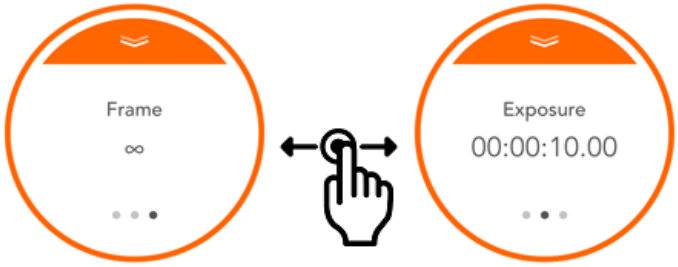
This is the basic button of action. If the mode you selected does not have any parameter to set, the mode will have this kind of a button. In such a case, the only thing you need to do is touching the orange button.

You can read the instructions on the button, to learn exactly what to do in that particular mode. These modes do not have any parameters to adjust, so you can start using them the moment you select it.

Action Button with Parameter

The second type of button has a parameter to be adjusted. The name of the parameter and the current value are displayed in the button. In order to change the value, you can just touch the value and a selection menu will appear. Depending on the type of the parameter, a numeric keypad may appear.

If the parameter only toggles between two values, it will change each time you touch it.



Switching between Parameters

If the mode has multiple parameters, then you will see dots at the bottom. You can switch between different parameters by swiping the button to the right or left. Each time you swipe the button, the parameter on the screen will change. Also, the dot of the selected parameter will be highlighted at the bottom. In order to change a parameter, swipe the circle accordingly.

Curtain Down

If a mode has parameters to be set, the action button will have a notch on top. This means, you cannot start the mode running until you set the parameters and then pull the “curtain” down by holding the notch and then pulling it down.

Once you pull the curtain down, the button will be enabled and you can start the mode by touching it. If you want to change the parameters, you need to push the curtain up again. After that, the parameters will be displayed and you can set the parameters at your own choice.

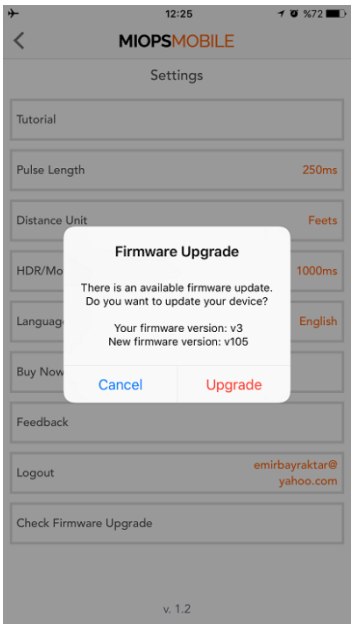
Curtain Up

Some modes have a threshold parameter. The threshold parameter will appear round the circle. You can move the bar along the circle to set the threshold value. Again, in order to enable the button, you need to pull the curtain down. The measured value will be shown on the threshold line in real time.

d. Firmware Upgrade

MIOPS Mobile Remote has “Firmware Upgrade over the Air” capability. In other words, you don’t need to make any cable connection to complete the firmware upgrade. You can follow these steps to complete the firmware upgrade of your MIOPS Mobile Remote.

Open the MIOPS Mobile app and go to the Settings screen. Select Check Firmware Upgrade. The app will connect to the server and check if there is a firmware upgrade available for your device. If a new version of the firmware is found, the app will notify you with a pop-up screen.



If you want to upgrade the firmware, touch the “Upgrade” button. At this point, the MIOPS Mobile Remote must be in “Firmware Upgrade” mode. In order to put MIOPS Mobile Remote into “Firmware Upgrade” mode, do the following:

- If it is turned on, turn it off.
- Then, press the On/Off button for at least three seconds.
- The Status LED will glow GREEN.
- Your device is now on Firmware Upgrade mode.
- The app will discover your unit and it will connect to it.

You can complete the firmware upgrade by following the instructions provided by the app. If any error occurs during the firmware upgrade process, you will be notified with related information messages.

4. Modes of MIOPS Mobile Remote

In this section, we will explain you how to use the different modes of MIOPS Mobile Remote. You can select the desired mode using the smartphone app. Once you adjust the parameters and start the mode running, MIOPS Mobile Remote will take care of the rest. You can find detailed information about different modes in the following sections.

a. Cable Release

The Cable Release mode is the basic mode to trigger your camera or flash. It does not have any parameter. The moment you touch the orange button, MIOPS Mobile Remote will trigger your camera for the duration of the pulse length. If your camera is in bulb mode, the shutter will stay open as long as the duration of the pulse. Otherwise, the exposure of the camera settings will be valid.

b. Press & Hold

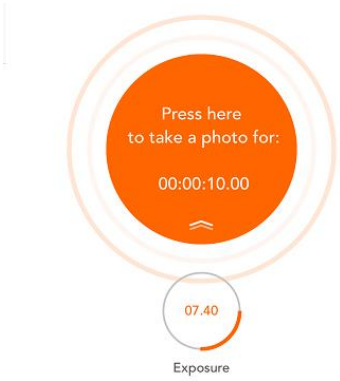
The Press & Hold mode has a level of flexibility by keeping the shutter open as long as you keep your finger on the button. This way, you are not limited with the pulse length. When you touch the button, a counter will start at the bottom of the screen. You can count how many seconds/milliseconds have passed. The shutter will close when you release the button. Again, in order to control the shutter with this mode, the camera must be in bulb mode.

c. Press & Lock

The Press & Lock mode is designed for prolonged exposures. If you do not want to keep your finger on the screen all the time, you can use this mode. The shutter will open with a touch on the button and it will stay open until the next touch. When you touch the button, a counter will start at the bottom of the screen. The camera must be in bulb mode to have flexible exposure.

d. Timed Release

The Timed Release mode is the perfect solution if you want to control the shutter with a great precision. This mode has the **Exposure** parameter to control the exposure in millisecond. In order to change the parameter, touch the exposure value and a numeric keypad will appear. You can type in the desired exposure value and then touch anywhere outside of the circle. The new exposure value will be shown in the circle. Touch the notch on top of the circle and then pull the curtain down. You can start the exposure by touching the orange button again.



Timed Release Screen

IMPORTANT NOTE: ***The cable release modes are designed to work in the BULB mode. This is the only mode, where you can get custom exposure through the shutter release port. If you do not put your camera in to BULB mode, all pictures will have the same exposure or the camera will take multiple pictures.***

e. Self Timer

The Self Timer mode enables you to trigger the camera after the timer goes off. You can set a timer up to 100 hours in milliseconds. When the timer goes off, the camera will be triggered for once. The Self Timer mode does not have any exposure parameter. It will only trigger the camera for pulse length duration.

When you start the timer, a circle will appear at the bottom of the screen. The circle will show the progress of the time and it will count down from the timer value.

f. Timed Release & Self Timer

If you want to have a custom exposure after the timer goes off, you can use the Timed Release and Self Timer mode. This mode combines the Self Timer with the capability of keeping the shutter open for a certain time. It has two parameters: **Timer** and **Exposure**. The Timer parameter defines when to trigger the camera. The Exposure parameter defines how long to keep the shutter open.

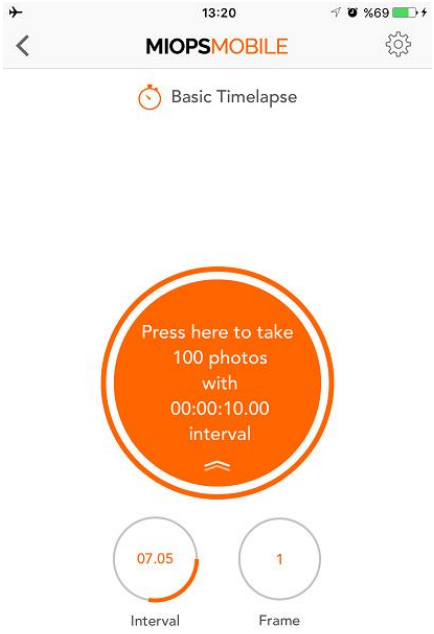
Once you set the parameters, you will see to counters at the bottom of the screen. The counter on the left displays the timer. It will count down from the timer value and when it goes off, the second counter will start showing how long the shutter has been kept open. The shutter will close when the custom exposure value is reached.

Timed Release & Self Timer mode is actually one of the cable release modes as well. As the ultimate target is to achieve a custom exposure after the timer goes off, the camera must be in BULB mode. Otherwise the custom exposure parameter will not have any affect.

g. Basic Timelapse

The Basic Timelapse mode offers to take time lapse pictures automatically without changing the exposure. It has two parameters; Interval and Frame. The Interval parameter defines the duration between each frame. The Interval can have a value from 13 milliseconds up to 100 hours. The Frame parameter defines how many pictures are to be taken. You can set the frame number up to 99999. If you set the frame number to zero, this will mean that the time lapse will continue until you stop it. The frame number will be shown as unlimited.

The Basic Timelapse mode does not offer any control over the exposure. The exposure settings of your camera will be valid. If you keep your camera in BULB mode, the shutter will stay open for the value of the pulse length.



Basic Time Lapse

Once you start the time lapse, you can see the progress on two counters at the bottom of the screen. The counter on the left will show the interval status. When the circle completes, the interval period is over and the next picture will be take. On the right, you will see another counter which shows the number of the pictures already taken. With each frame, the counter will be increased by 1.

Please note that, if the exposure setting of your camera is greater than the interval value, the time lapse process will not function properly. The exposure of your camera must be greater than the interval value. Otherwise the number of the taken pictures will be less than shown on the screen.

h. Long Exposure Timelapse

The Long Exposure Timelapse adds a third parameter to the Basic Timelapse mode and it is the Exposure. In this mode, you can define a custom exposure for the timelapse pictures, using the exposure parameter. You can set a custom exposure up to 100 hours in milliseconds.

When you start the Long Exposure Timelapse mode, you will see three counters at the bottom of the page. The first one will show the interval. Each time timer of the interval goes off, a picture with the custom exposure will be taken. After the exposure is over the frame counter will be increased by 1 and the interval counter will start again. This will continue until the targeted number of frames is achieved.

Long Exposure Time Lapse

The long exposure time lapse mode requires that your camera is set to BULB mode. This is the only way of achieving custom exposures. If you do not set your camera to BULB mode, the exposure value of your camera will be valid and you will not get pictures with the exposure set on the MIOPS app.

Once you start the Long Exposure mode, you can take your smartphone away. MIOPS Mobile Remote will be able to complete the whole process without needing your smartphone.

i. Bulb Ramping Timelapse

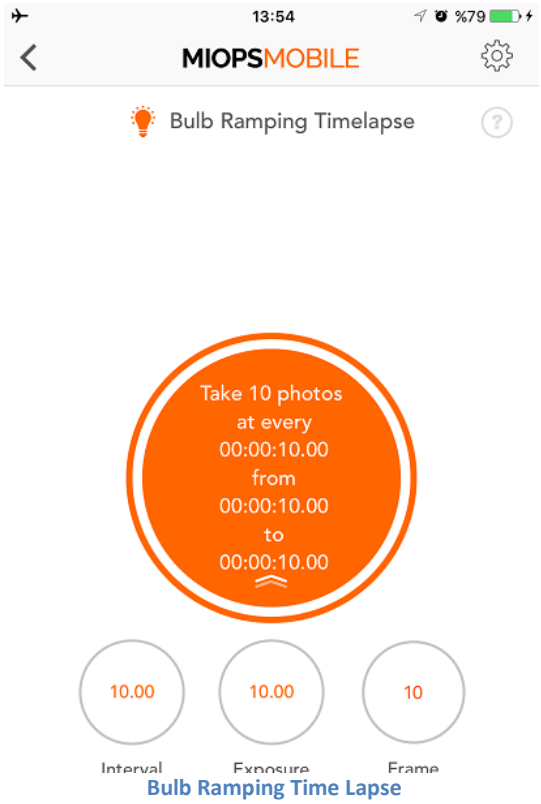
The Bulb Ramping Timelpase mode gives you the opportunity to take time lapse pictures with changing exposures. In regular time lapse modes, all of the pictures will have the same exposure. This can be enough for some cases, but sometimes the light changes throughout the whole photo taking process. The exposure needs to be adjusted accordingly to avoid too dark or too bright pictures. Bulb Ramping Timelapse mode takes care of that.

Rather than a single exposure value, this mode makes you set two exposure values. These are the initial exposure and the final exposure. The process starts with the

Initial Exposure. With each frame, the exposure will be changed towards the final exposure in a linear way. At the final frame, the picture will have the final exposure. In order to be able to create the custom exposure, the camera must be in BULB mode; otherwise all of the pictures will have the same exposure.

The exposure value can have an ascending or descending change. This depends on the initial and final exposure values. The change of exposure will be the same between each frame.

The Interval parameter defines how long to wait between each frame. Once a time lapse picture has been taken, MIOPS will wait for the duration of the interval to take the next picture. The process will continue until the set frame number is reached.



Bulb Ramping Time Lapse

After you have set all parameters, you can start the process by pulling the notch on the button down and then touching the orange button. After that you will see three counters at the bottom of the screen. The first counter will show the interval time. It will reset after each picture. The second counter will show the exposure time. It will also show the progress of the exposure. The third counter will show the number of the pictures already taken.

You can stop the process anytime, by touching the orange button. If you stop the process, it will be reset. You will need to start over again either with the same or different parameters.

j. Road Lapse

The Road Lapse mode uses the GPS data from your smartphone. It takes a picture automatically each time you pass the set distance with your vehicle. The distance unit can be either Meters or Feet. You can set the distance unit under the Settings menu.

This mode has two parameters. The first one is the Distance parameter. You can specify how much you need to travel before triggering the camera gain. You can set any value from 1 to 99999 in meters or feet. Please note that the GPS data of smartphones have a certain level of accuracy. This usually ranges about 10 to 20 meters. This can also change from phone to phone. So, if you set this value to a very low distance, the mode might not work as expected. The distance must be coordinated with the accuracy of your smartphone and the speed of your vehicle.

The second parameter is the Frame. It tells how many pictures need to be taken. You can set the value anywhere between 1 and 99999. After you have set the parameters, you can pull the notch on the button and then touch the button to start the process. After that, you will see two counters at the bottom of the screen. The first one will show you the distance traveled before the next picture. As your vehicle moves on the road, you will be taking pictures until the set frame number is reached.

k. HDR Timelapse

The HDR Timelapse mode combines the time lapse with HDR (High Dynamic Range) mode. In other words, each frame of the time lapse video will be an HDR picture. This can be a complex goal to achieve, but the HDR Timelapse mode takes care of it very easily.

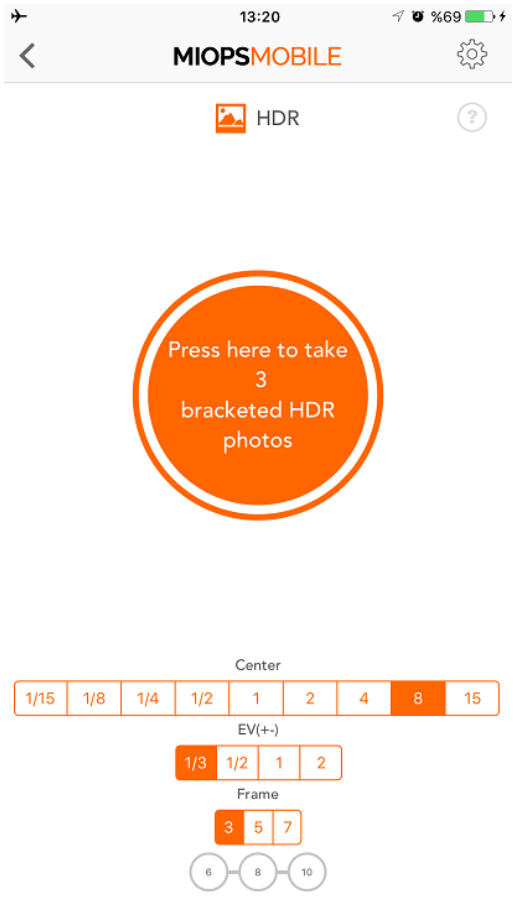
This mode divides the screen into two parts. The upper part of the screen is about the time lapse parameters. You can set the Interval value and the number of the pictures required for the time lapse video. The lower part of the screen will show the HDR settings The HDR part has three parameters to be adjusted. These are the Center, EV(+-) and the Frame. The Center value shows the exposure value that will sit in the middle of the sequence. The EV(+-) value shows how many stops each change will be. And finally, the Frame value shows how many pictures are to be taken for an HDR photo.

For the limitations of the HDR Timelapse mode, please see the warning in the HDR Mode section. See below.

l. HDR Mode

The HDR mode will take pictures with different exposures automatically, so you can later combine them to make an HDR picture. This mode is based on three parameters. These are Center, EV(+-) and Frame.

HDR mode takes pictures in odd numbers (3, 5 and 7). The picture in the middle of the sequence (respectively 2nd, 3rd and 4th) will have the center exposure value. The other pictures will have changing exposure starting from the lower end up to the higher end. The other exposure values are calculated with the number of stops between each frame per the total frame number.



HDR Mode

Once you start the HDR mode, you can see the progress on the screen with circles at the bottom of the screen. There will be an equal number of circles to the Frame value. In the screenshot on the left, the Frame value is set to 3, so there are three circles at the bottom.

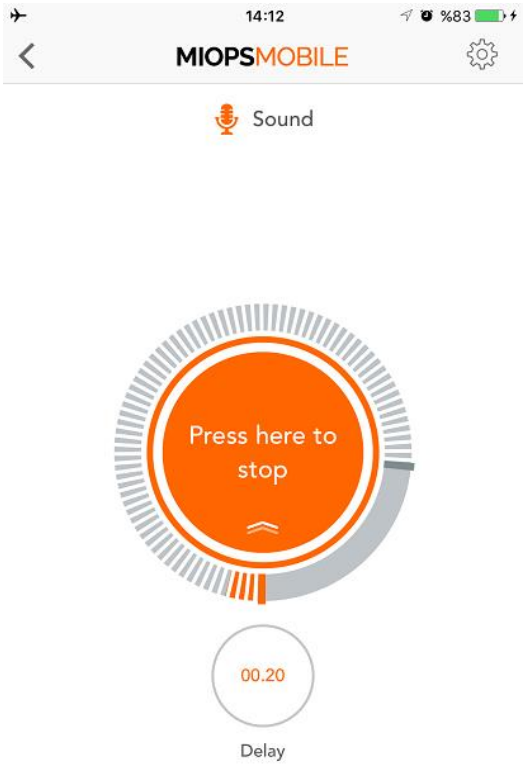
Each circle shows the exposure for value for that picture. Once the picture taking starts, the circles will display the exposure duration by filling up with an orange circle. This will continue from circle to circle until all of the HDR pictures have been successfully taken.

The HDR functionality is provided with the BULB mode of the camera. The camera must be in BULB mode; otherwise all of the pictures will have the same exposure. The shutter speed you can achieve over the shutter release port is limited. In most cameras you cannot get faster than 1/30th of a second. Because of this limitation, some EV(+-) and Frame values will be disabled for some Center values.

Example: *Let's assume that the Center value has been selected as 1/15 sec. In this case, the EV(+-) value '2' will be disabled, as the shutter cannot go two stops down from 1/15 sec. Similarly, if you select the EV(+-) as '1' for the same the center value, the Frame values '5' and '7' will be disabled, as the shutter cannot be triggered that fast form the shutter release port.*

m. Sound Mode

The Sound Mode uses the microphone of your smartphone to detect sound events. It has three parameters. These are the Threshold, Delay and Shot Mode. The threshold value determines the level of the sound that must be exceeded to trigger. The measured sound level will we displayed in real time with orange bars. This will help you to understand where to set the threshold approximately to filter out the environment noise. You can move the threshold bar around the button by touching the grey bar.



Sound Mode

The second parameter is the delay. The delay parameter defines the duration between the detection of the sound and the triggering of the camera. You can define the delay anywhere between 10 msec up to 99 hours.

The last parameter is the shooting mode. You can select one of the two possible modes. The modes are the "Continuous Shot" and the "Single Shot". In the "Continuous Shot" mode, the MIOPS Mobile will trigger the camera each time a sound event is detected. This can cause multiple pictures to be taken or multiple triggering of the flash.

If you don't want this to happen, you can select the "Single Shot" mode. In this mode, MIOPS Mobile will trigger the camera only once, and then it will stop. You will need to start the sound mode running again to take another picture.

In the sound mode, the distance between your setup and the smartphone can make a difference. Due to the propagation speed of the sound, you may want to bring the smartphone closer to or further away from the setup.

n. Vibration Mode

The Vibration mode is very similar to the Sound mode. The only difference is that vibration events are detected to trigger the camera or the flash. The threshold value determines the level of the sound that must be exceeded to trigger. The measured vibration level will be displayed in real time with orange bars. This will help you to understand where to set the threshold approximately to filter out the environment vibration. You can move the threshold bar around the button by touching the grey bar.

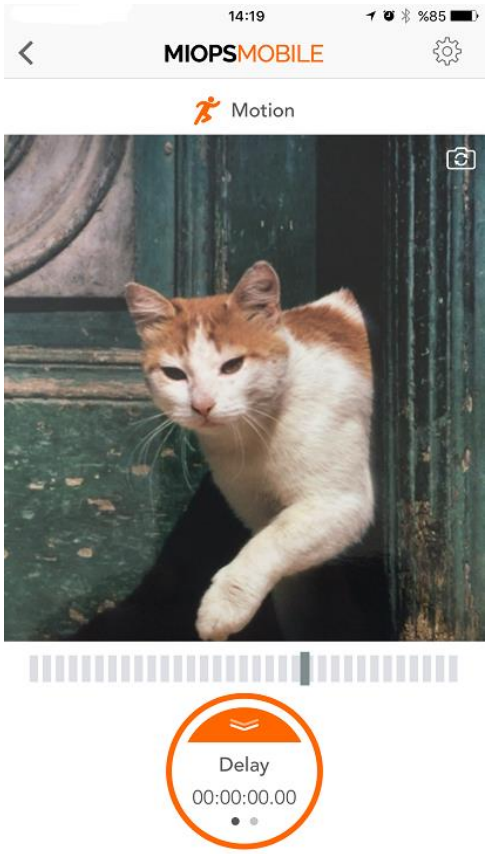
The second parameter is the delay. The delay parameter defines the duration between the detection of the vibration and the triggering of the camera. You can define the delay anywhere between 10 msec up to 99 hours.

The last parameter is the shooting mode. You can select one of the two possible modes. The modes are the “Continuous Shot” and the “Single Shot”. In the “Continuous Shot” mode, the MIOPS Mobile will trigger the camera each time a vibration is detected. This can cause multiple pictures to be taken or multiple triggering of the flash. If you don’t want this to happen, you can select the “Single Shot” mode. In this mode, MIOPS Mobile will trigger the camera only once, and then it will stop. You will need to start the vibration mode running again to take another picture.

o. Motion Mode

The Motion Mode uses the camera of your smartphone to detect motion in the view area. You can aim the camera to the area that you want to observe. When a motion is detected, MIOPS Mobile will trigger your camera or flash.

This mode has three different parameters. The first parameter is the depth of the field. Just below the video screen, you will see vertical adjustment scale. You can move the grey bar on the scale to the right or left to determine the depth of the field. If you move the bar to the right, the depth will be increased. In this case, you will be able to detect motion events that are further away from the smartphone. If you move the bar to the left, the depth will be decreased. If you do this, you will be able to detect motions that happen in an area which is relatively closer to the smartphone.



This mode has two other parameters as well. The first one is the delay. It determines the duration between the motion and the triggering of your camera. You can define the delay in milliseconds anywhere between 10ms and 99 hours.

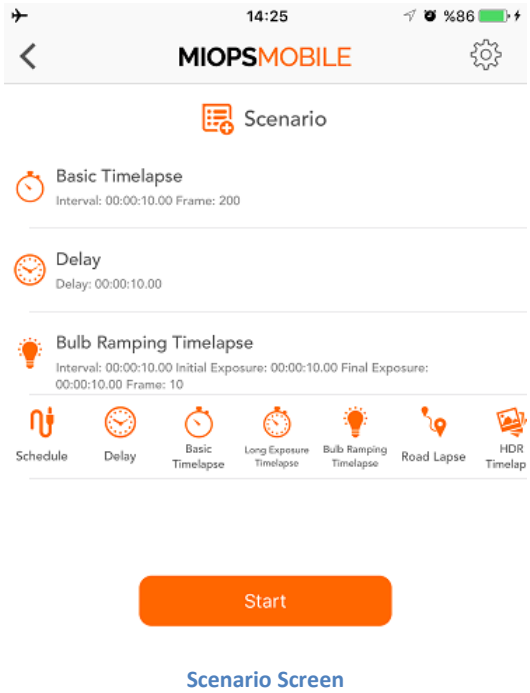
The last parameter is the “Frame”. This parameter defines how many pictures to be taken in case a motion is detected. Once a motion is detected, MIOPS Mobile will trigger the camera for so many times defined with the Frame parameter. You can set the frame the number all the way up to 99999. If you set it to “Zero”, MIOPS Mobile will keep taking pictures for ever.

p. Scenario Mode

The scenario mode is the most advanced mode of MIOPS Mobile. It gives you the total freedom of choosing which data and parameters to use to create your own unique trigger scenario.

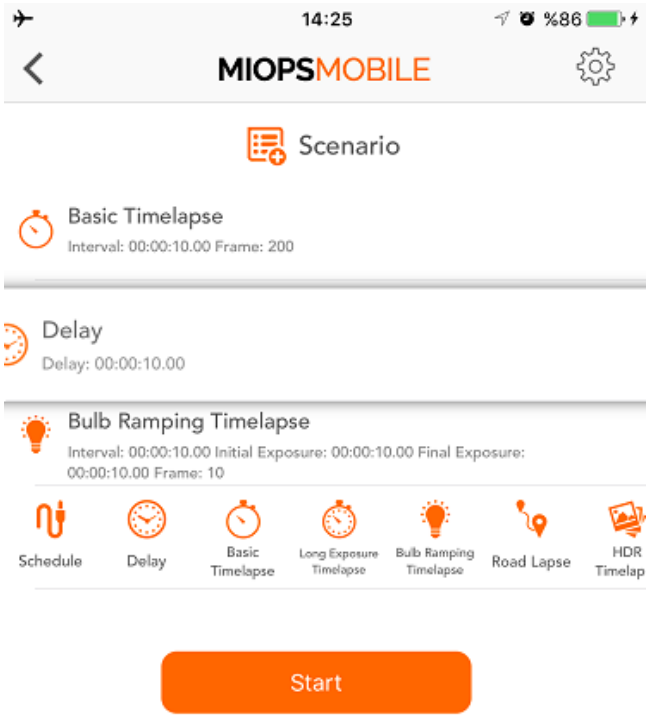
The scenario mode opens with a blank screen where all of the available modes are listed on the top. The idea is that you add the modes you want to use in a sequential order to create a custom scenario. You can use the delay parameter to add a certain delay as a step of the scenario. A scenario can have between 1 and 5 steps. You can configure each step of the scenario with the related parameters of that particular mode.

To start creating the scenario, touch one of the modes listed on the top. The parameters screen of that mode will open. You can change the parameters of that mode per your needs. Once you are done, you can add this to the scenario as a step by touching the 'Save' button. If you touch the 'Cancel' button, you will go back to the selection screen.



Scenario Screen

Each scenario can have up to 5 steps. You can arrange the order of the steps. If you hold your finger down on a step, it will pop out and you will be able to move it up or down. If you want to change the parameters of a step, you can touch it and the parameters screen will open. You can change the parameters and save again or cancel. You can reuse the scenario anytime later. It will be saved automatically.



Modifying Scenario Step

If you want to delete a step completely, you can swipe the step to the left and a “Delete” button will appear. If you touch the button a confirmation screen will pop up. If you really want to delete the step, touch ‘Delete’ again and the step will be deleted.

The scenario mode has some restrictions to keep the completion of the scenario possible all the time. The last step of the scenario cannot be the delay parameter. Also a step like time lapse with infinite number of frames will never end, so it can only be the last step of a scenario. If such a discrepancy is detected in the scenario, the user will be warned about it and you cannot start the scenario running until this is fixed.

5. Troubleshooting

- **I cannot find and download the MIOPS Mobile app.**

  The MIOPS Mobile app will only show up on App Store or Google Play Store, if your device meets the criteria. Otherwise, you will not be able to download the MIOPS Mobile app. The minimum versions are iOS 8.0 and Android 4.3. Also, your smartphone must have Bluetooth 4.0 capability.

- **MIOPS Mobile App cannot connect to MIOPS Mobile Remote.**

  If you cannot connect to MIOPS Mobile Remote, please check if your MIOPS Mobile is turned on. In order to turn it, press the ON/OFF switch at the rear side of the device.

- **HDR pictures have all the same exposure.**

  The HDR mode requires the camera to be on BULB mode. Otherwise, the exposure value of your camera will be valid. Please make sure that your camera is on BULB mode for the HDR mode.

- **The Long Exposure Time Lapse photos do not have the correct exposure.**

  The Long Exposure Time Lapse mode requires the camera to be on BULB mode. Otherwise, the exposure value of your camera will be valid. Please make sure that your camera is on BULB mode for the Long Exposure Time Lapse mode.

- **The Sound/Vibration/Motion/Road Lapse was interrupted during working.**

  The Sound/Vibration/Motion/Road Lapse modes require an active Bluetooth connection to your smartphone all the time. If the Bluetooth connection is lost, they will stop working.

- **I have another question.**

  For all your questions and inquiries, please send an email to info@miops.com.