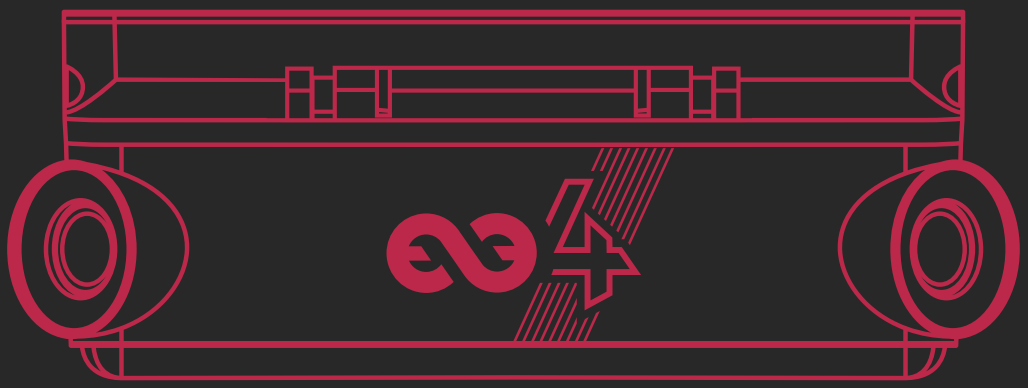
User’s guide Tikee 4 v1.0



tikee4

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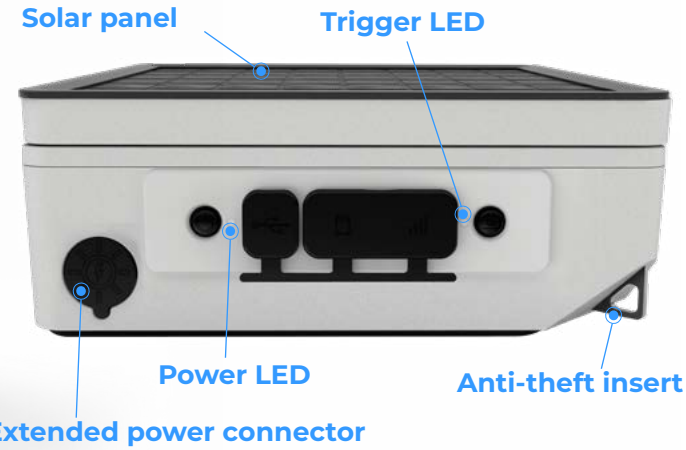
1. Introduction
Overview of your Tikee 4

Here are the main components of the Tikee :



1 LOCKING SYSTEM
Locks the position of the solar panel once its tilt has been set

2 LOCKING SYSTEM
Locks the position of the solar panel once its horizontal rotation has been set

The rear of the Tikee has many functions.
Each function is explained below with its corresponding icon.

Power button
A long press (3 seconds) to turn on/off your Tikee.

USB-C slot
To recharge your Tikee

MicroSD card slot
Slot to insert a memory card.

Power LED
To indicate status and battery level.

Micro SIM slot
Slot to insert a micro SIM

Trigger button
To start or to stop a pre-set timelapse sequence.

Extended power connector
Waterproof connector for an external power source.

Trigger LED
To indicate if a sequence is running.

Package contents


1x
Tikee


1x Quick start guide


1x Hexagon wrench


1x Microfiber cloth


1x
Soft Case

Prerequisites

Some elements are needed to ensure the optimal functioning of your Tikee:

- A microSD card (not provided) is required to use your Tikee (see dedicated section page 5)
- A smartphone connected to the internet (supported versions: Android 8.0 and up/iOS 11.0 and up - Bluetooth version 4.1 and up)
- A tablet or a computer with an Internet connection (to edit and publish your contents) with either Google Chrome or Safari preferably.

For the 4G connectivity : an activated microSIM (not provided) with an adapted subscription is required to upload data using 4G connectivity.

Downloading the mobile app Tikee Remote

Tikee Remote is the remote control for Tikee. This mobile application lets you make the first settings on your Tikee.

This mobile application is required to set up your Tikee.

Smartphone compatibility: Bluetooth 4.1 and +.
Android version 8.0 and up or iOS 11.0 and up.

Download on the App Store

DISPONIBLE SUR Google Play

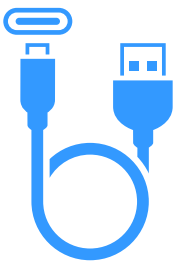
Creating a user account on the myTikee cloud platform

The use of the myTikee cloud platform and the Tikee remote mobile application require the creation of a myTikee account. If you have not yet created an account, you can do so with any connected device, on **https://my.tikee.io** and click on 'Register', then follow the instructions to complete your registration on the platform. You can also create a myTikee account directly from the Tikee Remote mobile application.

First charge of the device

Caution : For an optimal use of your Tikee, you have to fully charge the battery before its first use.

Plug a USB cable (not provided) into your Tikee into the dedicated USB slot.
Plug the other end of the USB cable into a power adapter (not supplied), and then into a power outlet.



Note : the first charge may require up to 48 hours. When charging is complete, the LED power turns blue. (You can monitor the Tikee's battery level on on the mobile application. See page 12)

Note : the waterproofness of your Tikee is not guaranteed when the USB cable is plugged into the USB slot.

Note : If an external power source is used, be sure that the voltage is 5V and that the delivered current is more than 2A.

2. Tikee overview

Buttons

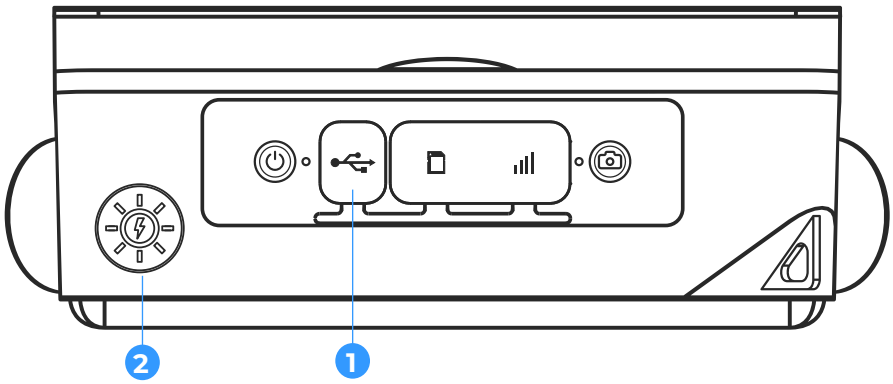
Power button

- **3-second** press : turn on your Tikee
- Single press while the Tikee is on : display the battery level (see below the Power LED section)
- **3-second** press : turn off your Tikee

Trigger button

- Single press : starts a shooting sequence (previously set up)
- **3-second** press : stop shooting

Power connectors



1. USB-C connector

This connector is used notably for the Tikee's first charge.
Caution : when plugged in, this connector is not waterproof.

2. External power connector

It is used to connect the Enlaps external solar panel (not supplied with the camera). This connector is waterproof, so it can be used outdoors.
Snap-in connector, pull to disconnect.
When not in use, re-insert the plug.

Caution : For your safety and the safety of the camera, do not plug other devices than those provided by Enlaps into this connector.
Enlaps cannot be held responsible for any damage that may result from the misuse of this connector.

LED

Power LED

- Off : Your Tikee is turned off, in standby or a sequence is on progresse
- On : Your Tikee is powered on - no sequence in progress
- Blinking : Tikee is charging through USB-C or external power connector

Its color indicates the battery level :

: Full battery (75%-100%)

Battery level between 50% and 75%

: Low battery (25%-50%)

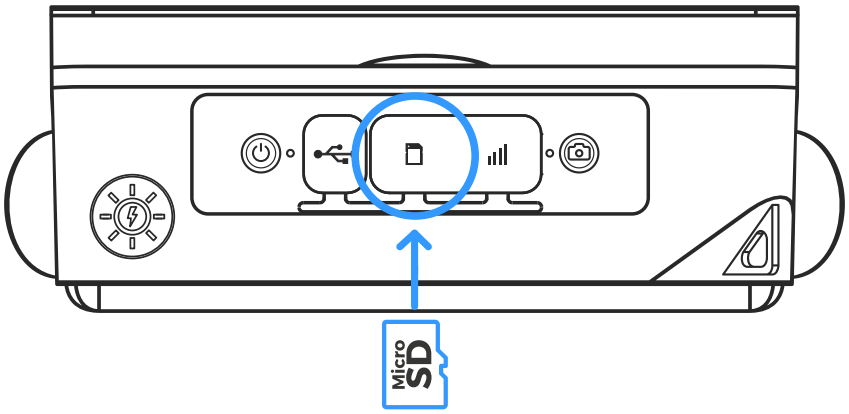
: Very low battery (5%-25%)

Empty battery : flashes twice and turns off

Trigger LED

- Off : no sequence in progress
- Slow blue flash every 10 seconds : sequence in progress
- 0.5 second red flash : error (microSD card missing, full or not compatible)
- Slow green flash every 10 seconds : expired sequence

MicroSD card (not included)



Technical information about microSD cards compatible with the Tikee :
- microSDHC, microSDXC,
- 8 GB to 1 TB capacity for Tikee 3 and up to 512GB for Tikee 3 PRO +
- UHS-1 class and speed class minimum U1 or U3

Note: Before use, we strongly recommend to format the microSD card (see corresponding chapter page 14). This can be done directly from the mobile application.

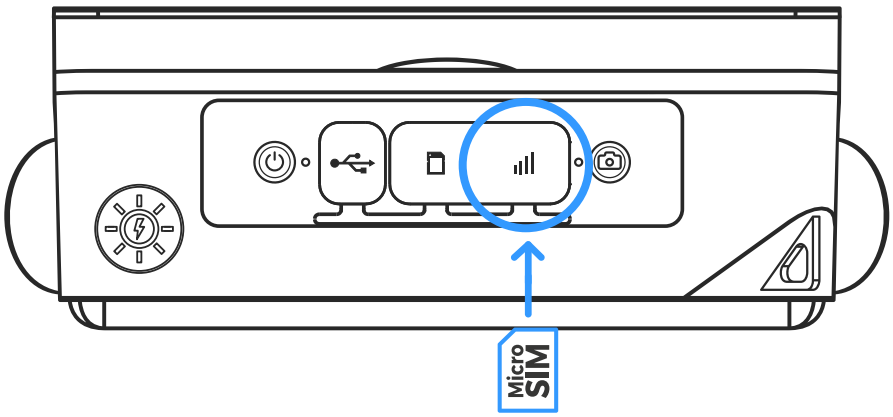
Important : Push-push insertion and extraction system; a slight click allows you to clip or unclip the card from its slot. Never pull the card directly.

It is important to respect the slots provided for the microSD card and the microSIM card. Although both cards have the same format and fit into each other's slot, the slots are not interchangeable and the Tikee will not work they are interchanged.

Do not insert any object (clamp, metal objects, etc.) in the slot of the microSD card or in the microSIM card slot.
Any deterioration or dysfunction related to improper use will not be covered by the warranty.

Micro SIM card (not included)

To use the LTE-4G network with your Tikee you have to previously subscribe to a 4G subscription with data plan (access to the data network) with the telecommunication provider of your choice. To take advantage of the Tikee's Always-on and Live stream functions, the subscription you choose must also allow you to receive SMS messages. To set up the microSIM card, see page 13.



Inserting the SIM card: Metal contacts of the chip downwards, angle left to the bottom - see above.

Important : Push-push insertion and extraction system; a slight click allows you to clip or unclip the card from its slot. Never pull the card directly but respect the push-pull system.

The card format must be «microSIM». If necessary, you can use an adapter.
- Do not attempt to insert a nanoSIM card without an adapter
- Do not insert a microSIM adapter alone, without a card (risk of destruction of the contacts)

SIM cards and the SIM card slot are delicate items. It is necessary to handle them with care, never use force them and never use metal tools.

Any deterioration or dysfunction related to improper use will not be covered by the warranty.

What volume of monthly data to choose?

Size of the package (in GB/month) =
(_ hours of shot per day x _ photos per hour x __ MB per pair of images
(see page 17 according to chosen resolution)) x 30 days

To easily estimate your consumption, you can use the timelapse planner here :
https://enlaps.io/timelapse-planner

Few exemples with M picture format :

- 1 photo every 15 minutes, 24/24 : about 7,2 GB/month
- 1 photo every hour, 10h a day : about 0,75 GB/month
- 1 photo every minute, 5h a day : about 22,5 GB/month

Caution : Although both microSIM and microSD cards have the same format and fit into the slot of each other, the slots are not interchangeable and the Tikee will not work if they are interchanged.

3. Starting up the Tikee
First connection and first settings

By connecting to the Tikee camera with the Tikee Remote mobile application:

- Check that the latest update is installed. If this is not the case, update by reaching this link : **https://enlaps.io/download** See *Update your Tikee*
- Check the battery status. A full charge (= 100%) is necessary
- For a connected use ; check network quality. Achieve and validate a connection test.

See *Setting up the connection of your Tikee to myTikee cloud platform*

The first connection of the Tikee to the mobile application requires having an internet connection on the smartphone / tablet.

Framing and installation recommendations

For a shooting of a few hours, your Tikee can be installed on its rubber sole on a sufficiently flat and not tilted surface or on a camera tripod.

For a shooting of a few days or months, we recommend to use a rigid support to ensure consistent framing over time and secure the position of your Tikee. You can find our recommended set of accessories for your Tikee on our store at : **https://shop.enlaps.io/en/**

To avoid theft and/or acts of vandalism, place your Tikee in a discreet high up location, and use an anti-theft system (your Tikee has a dedicated anti-theft insert).

Important *: To ensure the smooth running of your sequence ;*
It is advisable to monitor the Tikee on site in order to see its general condition (fastening, solar panel and lens cleanliness, etc.). It is also essential to check the proper functioning of your Tikee on your myTikee account: battery status, microSD card status, network status, date of the last connection, etc.

Caution : An indicative period of 3-4 months between maintenance is recommended to check all these elements, so plan to have access to your Tikee. Some installation sites may require special care (very dusty areas for example).

Caution : Be sure to respect the safety instructions related to working at heights and every recommandation of security and installation of the site where your place your Tikee.

Be sure that the proper installation of the fixing support and of the Tikee are correct to prevent falls.

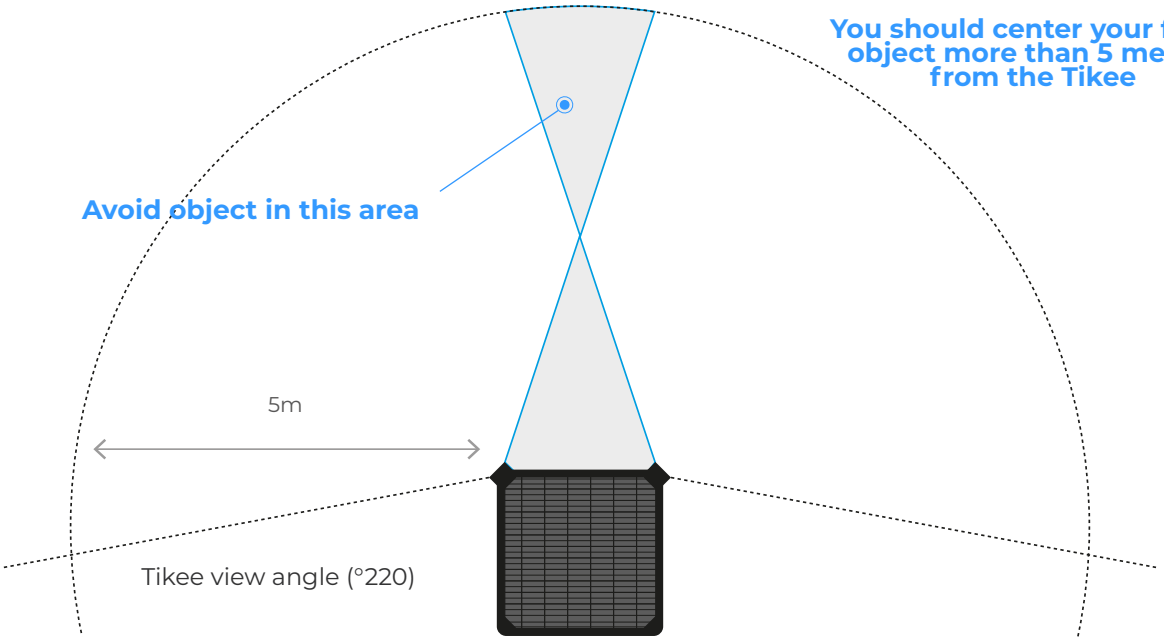
We cannot be held responsible for any damages that may result from improper use of our solution.

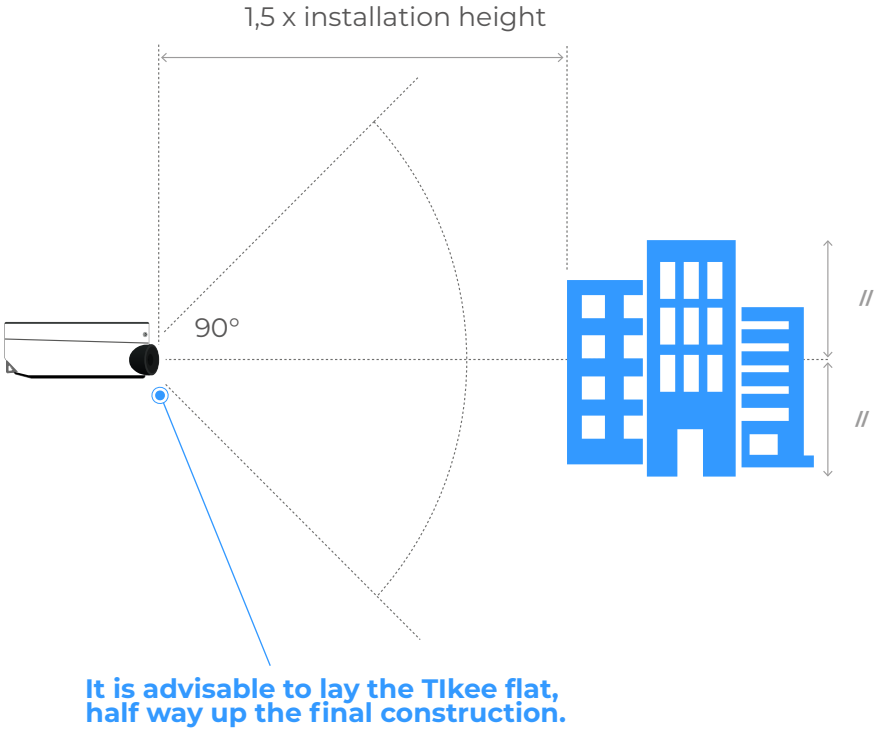
Your Tikee has wide angle optics. When photos are uploaded to the cloud platform, left and right images are fused together, to form a panoramic image

Therefore we recommend to keep your Tikee as horizontal as possible during the installation to minimize distortion of the image (you can use a bubble level or your smartphone with a dedicated mobile application).

***Caution* : If the camera is tilted (high-angle shot or low-angle), the wide angle leads to a deformation of the skyline on the final panorama**

Important : To avoid problems of image fusion, please make sure that no object in the foreground are closer than 5 meters away from the Tikee.





Once you have chosen the framing, lock the position of your Tikee so that there is no change in its framing over the time.

Be sure to use a hard mounting bracket to ensure consistent framing of the shot over time. We recommend to use the stainless steel arm designed by Enlaps for Tikee.

It is advisable to lay the TIkee flat, half way up the final construction.

The merging of the images is optimized on the first 100 photos of the sequence.
To ensure optimal image fusion, follow these guidelines:

- Do not start shooting until the Tikee has been set up. (The images taken before the set-up would then be used to calculate the image fusion, causing poor results)
- Do not start shooting in bad conditions (especially at night or with very poor visibility).

It is therefore important, for the first photos, that the weather and lighting conditions are similar for the rest of the project (place, without rain on the lens, during the day...).

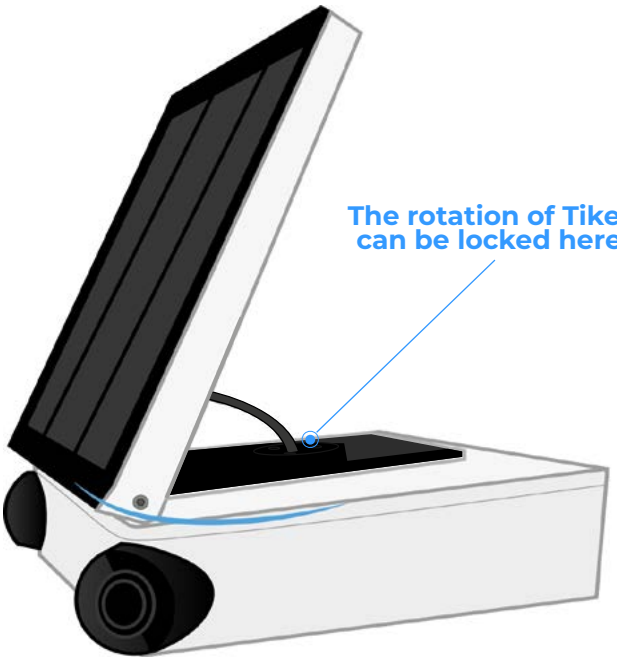
Solar panel set-up

The autonomy of your Tikee through its solar resource is directly related to the installation location. It depends on:
- shade on the photovoltaic panel during the day (roof, pole, tree,...), the more shade the less energy is produced;
- the orientation of the solar panel (South in the Northern Hemisphere, North in the Southern Hemisphere);
- the tilt of the solar panel (flat close to the equator, about 30° in France);
- outside temperature (the hotter it is, the more the performance will degrade);
- the shooting interval;
- the duration of the shooting per day;
- the quality of the network in the case of a connected use (Wifi or 4G).

After choosing the framing (cf. page 8), it is necessary to adjust the solar panel's position.

Important : To protect the battery, the battery charge is disabled ouside the range -10°C / +50°C.

1. Setting the orientation of the solar panel:



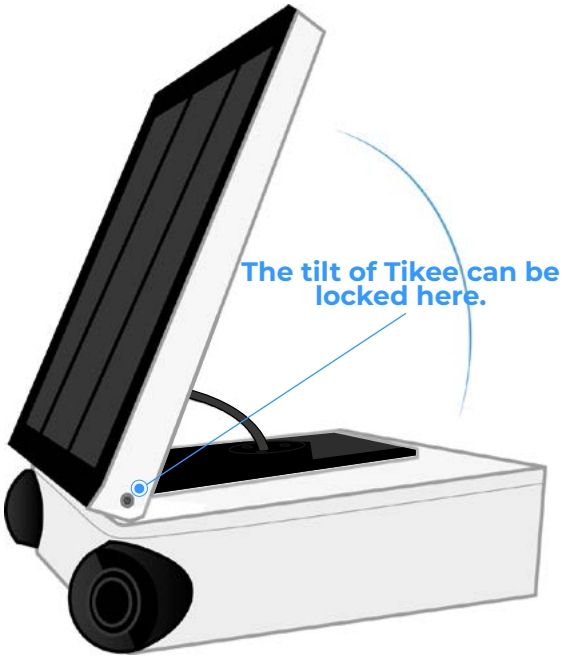
Start by orientating the solar panel to the south if you are in the northern hemisphere, or north if you are in the southern hemisphere. You can use a compass, a watch with a compass function or a mobile application on your smartphone

For example The PV Optimizer application (iOS only) allows you to easily adjust the rotation and incline of the panel.

2. Setting the incline of the solar panel :

Tilt the panel according to the latitude of your position (approximately 30° in France for example).

Once the panel has been tilted at the desired angle, lock it with the 2 screws located on either side of the photovoltaic panel (using moderate force).

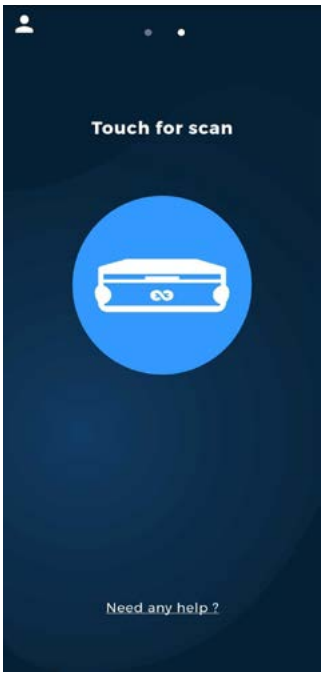


4. Getting started with the Tikee Remote mobile app
Connect your Tikee to the mobile app

Before you keep reading, make sure you have followed the instructions of Chapter 1 - Beginning. Please, check that the version of your mobile application is the latest available on the store

1. Activate Bluetooth and location services on your mobile device before launching the mobile app. Once your Tikee is powered on and nearby, launch the mobile app Tikee remote and log in with your credentials - created in “Creating a user account on myTikee cloud platform” section - same as the cloud platform.

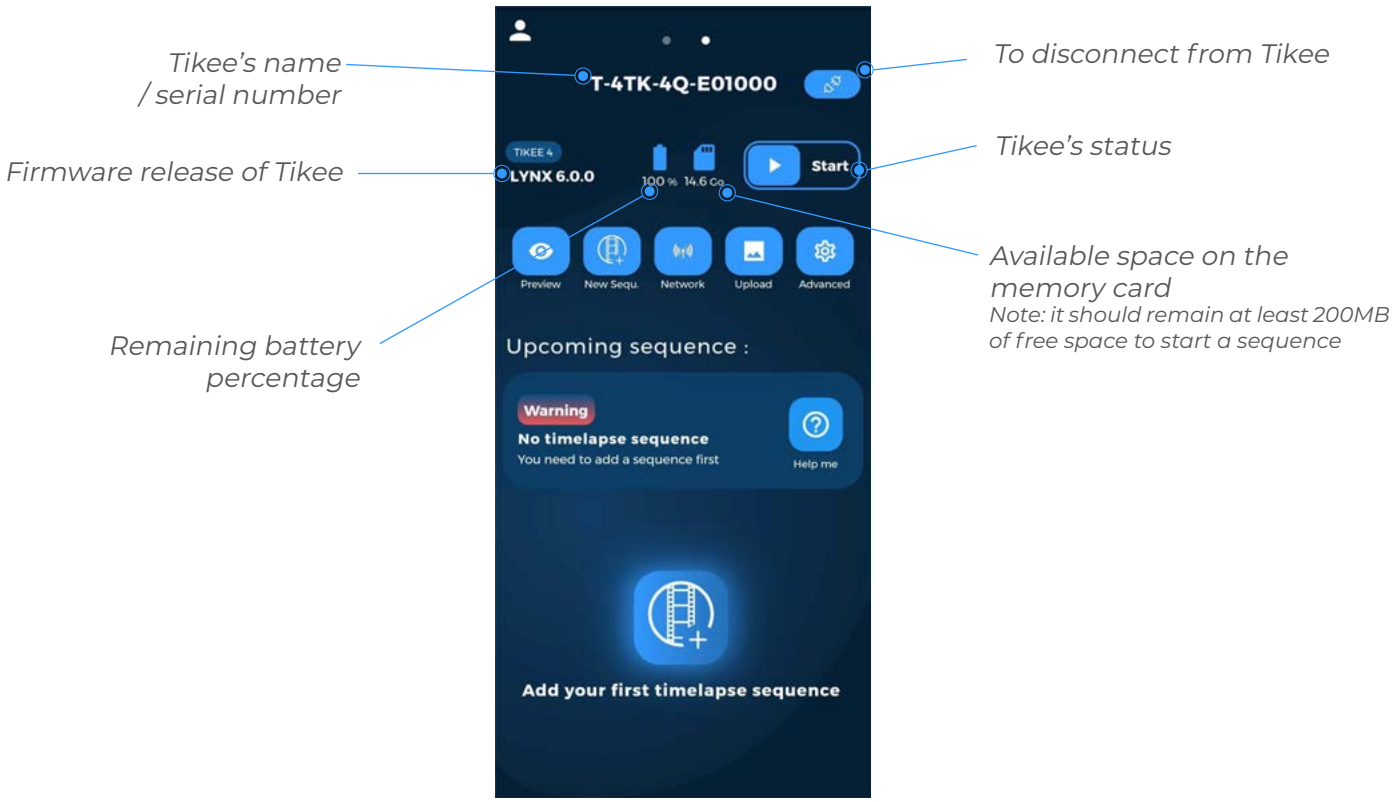
2. Select your Tikee in the nearby camera list.



If there are several Tikees in the area, they are differentiated by their serial number, which can also be read on the label.

Your Tikee is then associated with your user account. The association prevents any other user account to use your Tikee.

3. You access directly to the status screen of your Tikee



The Tikee has 2 possible status:

- STOP : basic status of the Tikee, in inactive mode the camera will not take a photo sequence and will switch off after 30 minutes of inactivity. You will have to access the camera and press the power button to start it again
- START : this mode allows the Tikee to remain on and therefore to take into account the sequences set up (see page 17). If no sequence is in progress or programmed, the device connects to the cloud at least every 24 hours to retrieve new information (for example, adding a new sequence from myTikee).

To switch between the two status, press « START » or « STOP » on the mobile app.

Warning : If the Tikee turns off while it was on STOP, you will need to access the camera and press the power button to turn it back on.

Setting up the connection of your Tikee to myTikee cloud platform

If you want use your Tikee's WiFi modem or 4G LTE modem to regularly upload photos to myTikee cloud platform, you have to complete the following settings.
Active connectivity mode is displayed on the mobile application screen (None, Wifi or LTE)

Select the desired connection mode (wifi or LTE) and set up the connection, save and test it.

Please contact your operator for connecion settings.

Connecting to WiFi

The WiFi connection is not possible on WiFis that require a connection to a web portal (which is often the case on an industrial site or on free networks WiFis).

Click on Network then Wifi on the homepage.

SSID : name of the WiFi to which you want to be connected to. Case sensitive

Password or security key : enter the password/security key of the wireless network. Case sensitive

Security : Scroll to choose the wireless network security type.
Note: Most actual equipment uses "WPA2-PSK" security

Once the parameters filled to save them click on : « **Save** »

We recommand to test the connection of your Tikee once the parameters are set up.
For that click on « **Test connection** ». This step may take several minutes because the Tikee will check all of the steps to be connected to myTikee cloud platform server.

At the end of the test you will receive a notification about the success or not of the test.

If the connection fails : check if the quality of the wireless network is sufficient (for example you can test the connection on your smartphone beforehand) and that your credentials are correct.

Note : you can connect the Tikee through a mobile hotspot using a smartphone with a 4G connection.

Connecting to an LTE telecom network

An active microSIM card needs to be inserted in its appropriate slot.

APN : this field is required - most of the time you can find it on the website of your telecom service provider or on your mail opening line.

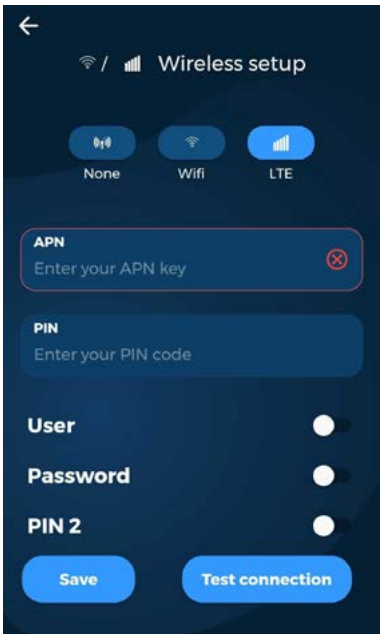
PIN : This is the PIN code of the SIM card. Leave blank if PIN off.

User: to complete if provided by your mobile operator (These are not Enlaps identifiers)

Password : To complete if provided by your mobile operator (This is not the Enlaps password).

PIN 2 : to complete if provided by your mobile operator

Once the parameters filled to save them
click on : **Save**



We recommand to test the connection of your Tikee once the parameters are set up. For that click on « **Test connection** ». This step may take several minutes because the Tikee will check all of the steps to be connected to myTikee cloud platform server.

At the end of the test you will receive a notification about the success or not of the test. You will also receive information about the signal quality and the type of connection.

Note : For optimal operation, a 4G(LTE) connection is required. Correct uploading of photos in 3G is not guaranteed in all conditions. In this case it is recommended to disactivate the uploading of photos. However, you can keep connectivity enabled to get status information from the camera.

Note : Be aware of the costs of data roaming in a foreign country.

Using the camera without a connection

If not configured, the Tikee will not send any data.

If no network is in range or if you do not want the photos be automatically sent to the myTikee cloud platform. Click on the None icon to have no connection.

In this case, photos backup will be made locally on the microSD card and this will allow you to get a right image (RIGHT) and a left image (LEFT). Then, if you wish, you will be able to merge these images by drag and drop in myTikee cloud platform - see page 22.

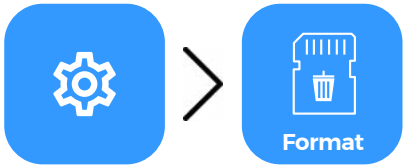
Tip : By setting up a Wifi or LTE network but by disabling photos upload, the Tikee camera will send only its status (battery, network, microSD card, etc.) for remote monitoring.

Advanced settings

Formatting the microSD card

We recommend to format the microSD card before first use. You can format it directly from the mobile application.

Here is the path on the mobile application to format the microSD card.



You cannot format the microSD card when a timelapse sequence is in progress.

Unlinking your Tikee from your user account

The association of a Tikee with a user account is automatic and occurs during the first linking (connection of your Tikee to the mobile app). During the following connections, the Tikee linked to your account are marked with 2 chains:

A Tikee can only be associated with a single user account. However, it is possible to connect several smartphones with the same user account.

If you want another user to use your Tikee with an other myTikee account you can unlink it from your account.

You will not be able to link with a Tikee associated with another account than yours. You have to unlink it first.

Caution : Once unlinked, any user who has downloaded the Enlaps mobile application can be linked to your Tikee. It is strongly recommended to not unlink a Tikee having a current sequence. The Tikee keeps its setting (if it has one) during a unlink.

Modify the interval for sending images on the mobile app

Advanced settings > Sending photos > **From** button : choose the sending rhythm.

For long sequences (see page 17 to set up the sequences), there are 3 different ways of sending images to the cloud platform :

Normal mode : Choice of the sending rate with the Sending Threshold. The Sending Threshold defines the minimum number of images before the Tikee connects to send them. In this mode, the Tikee connects at least every 24 hours.
Example: Normal mode activated, threshold set to 15, the Tikee will wait until it has 15 photos available before sending them.
(Without your intervention, the default value is 25)
Caution/Important : Reducing the image sending threshold can significantly reduce the camera's autonomy (more intense use with data sending).

Minimal mode : The Tikee connects every 24 hours at the chosen time and sends the last image captured.
This mode saves energy and data while maintaining regular feedback.
Example: Minimal mode activated, set to 3pm. The tikee connects at 3pm every hour, and sends you a single photo (the last available).
Caution/Important : The other images captured by the camera are stored on the microSD card, please allow sufficient space.

Sample mode : The Tikee sends the last captured image with a periodicity defined by the chosen sending threshold.
This mode saves energy and data while providing even more regular feedback.
Example: Sample mode activated, threshold set to 5. The Tikee will send 1 image every 5 images.
Caution/Important : The other images captured by the Tikee are stored on the microSD card, please allow sufficient space.

Update your Tikee

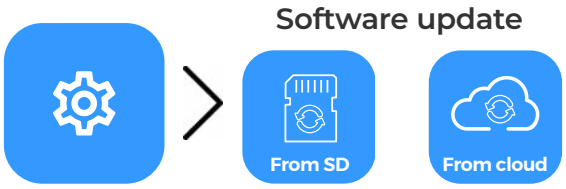
Before using the Tikee, check that its firmware version is the latest online (see page 12).
If this is not the case, update your Tikee either :

Note : To update your camera, make sure the battery charge level is above 50%.

- From the microSD card.

Go to our website **https://enlaps.io/en/download**, download the update according to your camera model from a computer following the instructions given, copy it on the microSD card previously formatted (see formatting chapter). You can also download the update from the myTikee cloud platform.
Note : The file must be named exactly «TikeeUpdate.fw». Be careful, some browsers may rename the file when downloading the same file successively.

1. *Camera off* - Insert the microSD card into the dedicated slot.
2. Turn on your Tikee and and from the mobile app, go to :



The update may take a few minutes. Once finished, you will receive a notification on the mobile application and then it will disconnect.
If the Tikee is charging, it will restart automatically (the Power LED will go out and then start flashing before becoming steady again).
If the Tikee is not charging, it will switch off. You can then simply restart it by pressing the power button ⏻ .
Once the update is complete, you can reconnect to the Tikee Remote mobile application. The update file is automatically deleted from the microSD card once it is done.

- From the cloud via the Tikee Remote mobile application 

This method requires a valid Wi-Fi or 4G/LTE connection and a microSD card into the slot SD. Stand close to your Tikee and launch the update from the cloud. The update is done following the steps displayed on the screen.

Caution/Important : In both cases, it is recommended to connect your Tikee to a USB plug because the update is only done if the battery level is higher than 50%
Note : On some smartphones, after an update, switch to the airplane mode 30 seconds before reconnecting to the mobile application.

- From the cloud via the myTikee cloud platform 

This method is possible if the Always-ON is set up on your Tikee.

1. Go to your myTikee account
2. Select « **My Tikee** » in the left-hand menu and click on your camera's serial number.
3. Click on « **Always On** », then select « **Upgrade firmware** » and click on « **Validate** ».

Your Tikee will connect to myTikee to download the latest firmware version within a few minutes. It will then install the new software and reconnect to the platform.

It takes a few minutes for your Tikee to be fully updated.
If you have a sequence in progress, your Tikee will pause it to install the update and will restart itself once the update is complete.

Setting up a sequence

Before launching a sequence, you can check the framing of your camera by doing a preview.

To do so, after having performed the connection tests (microSD card, Tikee connected to the wifi or LTE network and smartphone or tablet connected to the wifi or LTE network), click on the preview button. 

To create your first sequence, click on new sequence  and then set it up.

Here is a summary table of possible sequences with your Tikee 4 :

	 **Long**	 **Event**	 **Burst**
Minimum interval	30 sec	5 sec	5 sec
Maximum interval	24 h	45 sec	45 sec
Recommended interval	15 min	10 sec	10 sec
DNG Format	JPEG* and/or DNG	JPEG	JPEG
Max. duration	Start date and End date or Infinite (depends on the interval, the sunshine and the connectivity)	Limited to 24h / 6000 photos max (200 photos min.) (depends on the interval, the sunshine and the connectivity)	Limited to 2h30 / 200 images max (depends on the interval, the sunshine and the connectivity)
Upload of photos on the web app	Yes**	No	Yes**

**Photos sent only in JPEG format, photos in DNG format only saved on microSD card.*
*** At least once a day or according to your send interval settings*

Once you have set up your shooting sequence, save it and you will be redirected to the main page of the mobile application.
To launch the sequence, go to the « **Starting a sequence** » section

You can end a running sequence by pressing the camera's trigger button again or by pressing STOP on the mobile application.

Note : If you stop a running short term sequence before the end of the sequence, the images are not sent to the cloud platform but are kept on the microSD card.

Format and size of the images

JPEG :

Left and right image stored on the SD card : 4032 x 3024 each, approx. 2.5 MB (5 MB per pair)

Left and right images sent on the cloud platform : selectable among 3 dimensions :

S : 2048 x 1536, approx. 1 MB per pair

M : 2664 x 1998, approx. 2,5 MB per pair

L : 4032 x 3024, approx. 5 MB per pair

Panoramic image resolution after fusion : according to the dimensions selected above :

S : 3280 x 1180, approx. 1,5 MB per panoramic image

M : 4260 x 1534, approx. 2,5 MB per panoramic image

L : 7360 x 2650, approx. 5 MB per panoramic image

DNG :

The DNG format images are not uploaded, nor usable on the cloud platform.

Left and right image stored on the SD card : 4032 x 3024, env. 26 MB (52 MB per pair)

DNG + JPEG:

Images in DNG format are not sent or usable on the cloud platform. **Left and right images are stored on the microSD card**: 4032 x 3024, approx. 26 MB, but **JPEG images are sent to the my-Tikee cloud platform** in the desired size (S, M or L).

Autonomy

The autonomy of your Tikee depends on several factors :

- the sunshine and the exposure of the solar panel;
- the type of timelapse (short or long term) and the shooting interval;
- the upload of photos on the cloud (or no) and the quality of the connection.
- the chosen image resolution
- the outside temperature
- Enlaps external solar panel connection

Here are estimates of autonomy with the following assumptions :

- Battery power only (without solar panel)
- Ambient temperature 20°C
- Photo resolution M

These figures can be significantly increased by using the Tikee in outdoor project conditions on battery and solar panel.

		Always ON deactivated		Always ON activated	
		Without upload	With upload (300 kb/s)	Without upload	With upload (300 kb/s)
Sequence		Max. 12h	Max. 10h	Max. 12h	Max. 10h
Sequence	1 photo every 30 sec :	2,7 d(24h/24) 5,3 d (12h/24)	0,7 d (24h/24) 1,5 d (12h/24)	2,6 d (24h/24) 5 d (12h/24)	0,7 d (24h/24) 1,4 d (12h/24)
	1 photo every 5 min :	14,4 d (24h/24) 25,2 d (12h/24)	4,6 d (24h/24) 9 d (12h/24)	14,2 d (24h/24) 25 d (12h/24)	4,5 d (24h/24) 9 d (12h/24)
	1 photo every 15 min :	36 d (24h/24) 54 d (12h/24)	12,6 d (24h/24) 23,4 d (12h/24)	30 d (24h/24) 36 d (12h/24)	12 d (24h/24) 22 d (12h/24)
	1 photo every 30 min :	54 d (24h/24) 73,8 d (12h/24)	23,4 d (24h/24) 37,8 d (12h/24)	36 d (24h/24) 40 d (12h/24)	22 d (24h/24) 30 d (12h/24)
	1 photo every hour :	73,8 d (24h/24) 90 d (12h/24)	37,8 d (24h/24) 55,8 d (12h/24)	40 d (24h/24) 43 d (12h/24)	30 d (24h/24) 36 d (12h/24)
	2 photos per day :	108 days	93,6 days	45 days	44 days

The Tikee has 3 power modes :

- Normal : The Tikee has sufficient energy, so it captures and downloads the images normally according to the chosen parameters (this status corresponds to a percentage higher than about 30% of the battery).

- Eco : Tikee's energy has decreased, it continues to take images and store them on the microSD card but no longer sends them to the cloud. However, it continues to connect every 24 hours to send its status and update its configuration. The pictures are sent as soon as the battery is above 60%.

- Standby : The Tikee's energy level is too low (about 15%), it continues to capture images but no longer connects to the cloud.

Starting a sequence

Once the sequence(s) have been set up and sent, you can start them by pressing **START** or the camera's trigger button.

Once the sequence is started, the power LED turns off and the trigger LED flashes blue every 10 seconds.

You can create new shooting sequences (maximum 6 and only 1 long sequence at a time). If your Tikee is already active, there is no need to start your sequences again.

You can end a sequence in progress by pressing the camera's trigger button again or by pressing STOP on the mobile application.

Note 1 : If a burst sequence in progress stops before the normally set end, the images are not sent to the cloud platform but are kept on the microSD card.

Note 2 : You can check the status of the Tikee at any time on the main menu of the Tikee Remote mobile application (near the Tikee). To refresh the page, scroll down the screen. The status will update.

Checking the progress of a sequence

You can check the status of each scheduled sequences by clicking on it from the mosaic sequences menu.

''Long-term'' sequences can be searched, edited and removed.
''Short-term'' sequences can be searched and removed, but not edited.

When a sequence is in progress, you can see the number of photos taken and sent to the cloud platform in the sequence insert on the home screen.

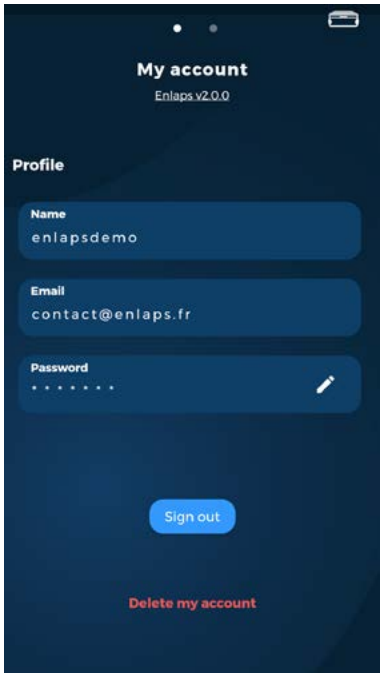
To delete or stop a sequence :

1. Stop shooting by clicking **STOP**
2. Drag the insert of the sequence to be deleted to the left and click on the delete logo.
3. Press START again to continue with the sequence still in progress

Note : A short-term sequence cannot be restarted.

Deleting a sequence only deletes the settings and does not delete the point of views on the cloud platform or the photos on the microSD card.

User account



Version of the mobile app

You can check the version of the mobile app installed and the connected user (myTikee account) on your smartphone by clicking on in the top left corner.

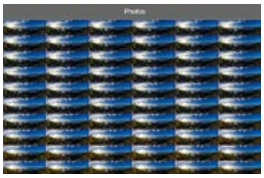
Disconnecting from the mobile app

The mobile app will keep your user's ID from the first connection.
If you want to log off from the mobile application, click on Sign Out.

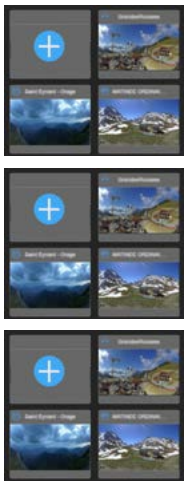
5. Getting started with myTikee cloud platform (basic features)

*To go further, visit : **https://help.enlaps.io/en** and **https://enlaps.io/enlaps-academy***

Foreword



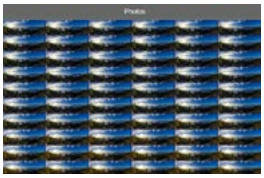
Photoset A
All photos of a shooting sequence



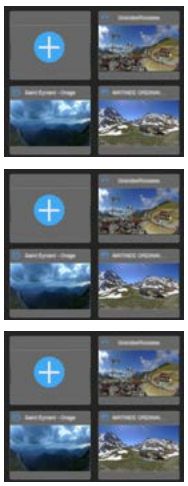
Points of view
Gallery and video using all or part of the photos in sequence A

Feature available as part of a specific myTikee subscription plans

Portfolio
Project bringing together several points of view enriched by many different media



Photoset B
All photos of a shooting sequence



Points of view
Gallery and video using all or part of the photos in sequence B

Upload of photos on the myTikee cloud platform :
From the mobile app, when you set up your sequence, make sure you have selected « Send images » to directly or later make the most of all the features of the cloud platform: combined images, edition, view, sharing...

Sequence : database of all of the shot photos during an in progress or ended sequence. These are merged to obtain a panoramic image.

Point of view : A point of view uses the pictures of a sequence to create a video. You can create several points of views based on the same photo sequence.

Caution : The calculation of the fusion of left and right images of your Tikee requires between 25 and 100 images. Prior to this calculation, your sequence may not appear. You can check the status of your Tikee on the cloud platform app to confirm its proper functioning.

The calculation of fusion is done only once by sequence. Once done (when you see your point of view in your account) the following pictures are generated much faster.

Note : All photos of a burst sequence are uploaded to the cloud platform once the sequence is ended. The video will only be visible with a minimum of 100 images.

Portfolio (available as part of a specific myTikee subscription plan) :
A portfolio brings together several points of view and creates a set of media enhanced by AI processing, filters, navigation between points of view on a map, etc...

AI Dashboard (available as part of a specific myTikee subscription plan) :
The AI Dashboard has been developed to help professionals analyse data, with indicators relating in particular to productivity, safety and project monitoring. It contains a compilation of data from one point of view in a dashboard.
Visit **enlaps.io** to find out more.

Point of view

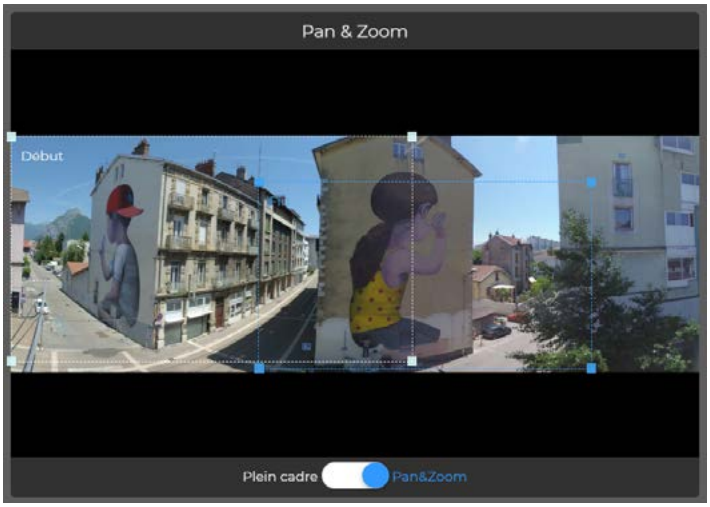
Editing a point of view :
After you have selected your point of view, you can edit it by clicking on  . You'll have access to 6 windows :

Window 1 : Filters
This gives you access to time-based filter settings, as well as selective filters using Artificial Intelligence (available as part of a specific myTikee subscription plans).
Don't forget to click on Save at the bottom of the page to validate the settings that will be taken into account when generating the video and your content.

Window 2 : Photo
The photo mosaic lets you quickly view the images in your sequence that have been selected to make your video.
In this window, you can also delete one or more photos from your sequence. 
You can also manually add photos to the sequence . 

Please note : the photos imported into the sequence must be in the same format as the photos already in the mosaic.

Window 3 : Pan & Zoom
Two types of framing can be selected:
Full framing and Pan&Zoom. The video generated in the preview will move around the panoramic image from the « **Start** » area to the « **End** » selection area. This is the « **Pan** » function. The size of the zones can also be modified to « **Zoom in** ».
Note that the minimum size has been blocked to ensure that the video is always in FullHD format



Window 4 : Preview
This window allows you to preview the video with the latest modifications.

Window 5 : Description
Enables you to fill in the description fields specific to the viewpoint.

Window 6 : Extras
Gives access to parameters relating to the video to be generated, such as:
- Activation of automatic video generation every 24 hours.
- The possibility of exporting filtered photos or creating videos using the Timelapse Builder (available as part of a specific myTikee subscription plan).
- The length of the video.
- Public or private visibility of the generated video.
Info : When your content is in « Public » sharing mode, it becomes visible and shareable by all the people who have the link (myTikee user or not). The content also becomes visible in the « Public » section next to the search bar.
- The watermark will be inlayed at the bottom left of the videos.

Deleting a point of view :
After you have selected your point of view, you can remove it by clicking on  .
Caution : If you delete the last point of view based on your sequence, your point of view and photos of this sequence will be lost

Adding a mask blurring : 

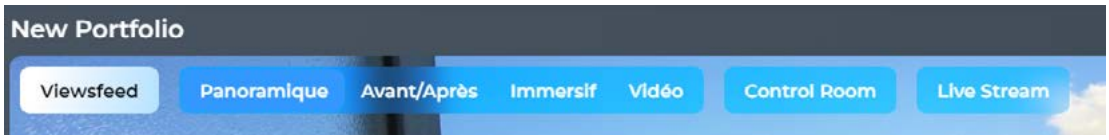
The blur mask lets you blur fixed parts of the scene by adding a mask to the images that will appear in the video.
Once the blur mask has been applied, you will have 2 points of view: one with the blurred images and one with the unblurred images.

Portfolio (available as part of a specific myTikee subscription plan) :

Create a portfolio :
In the Portfolios section , click on
Fill in the Name and Description fields and then click on the points of view you wish to group together.
Finally, select the public or private visibility mode for your portfolio and click on « **Save** ».

Viewing a portfolio :
In the Portfolios section, you can click on the title of your portfolio or on the eye that appears when the mouse hovers over the 3 small dots .

You will then have access to the different media in the portfolio:



Viewsfeed will automatically provide you with one new media item per day if your portfolio has received new photos in the last 24 hours.

Edit a portfolio:
In the Portfolios section, click on the pencil that appears when the mouse hovers over the 3 small dots .

You can delete existing viewpoints by clicking on them and then saving. This leads you directly to the viewing area where you can access the following settings:

- the map to visualize the location of the points of view
- full screen mode
- resolution and media sharing settings
- the treatments to be applied to the photos

Delete a portfolio:
In the Portfolios section, click on the bin .
which appears when the mouse hovers over the 3 small dots .

This action will only remove the portfolio and not the views present in the portfolio.

Setting up your Tikee

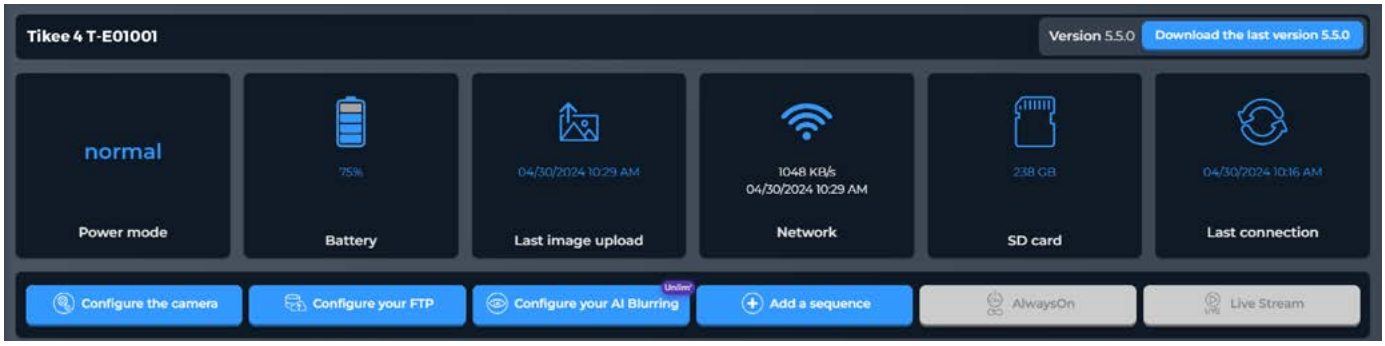
You can manage all of your Tikee settings by clicking on « **My cameras** » then « **Tikee** » on the left of the screen.

Choice of the Tikee
Select the Tikee you want to set up by clicking on the serial number of your camera.

Info : *With a specific myTikee subscriptions, you have access to several dashboards showing all the cameras connected to your account.*

Checking the status of your Tikee
Once you have selected your Tikee, you can access to all of its status information: The Tikee's

power mode, battery charge status, date of last received image, network quality, available space on the micro SD card and date of last connection.



You will also have access to more advanced settings for your camera on the « **Configure the camera** » tab which varies depending on your camera model.
From this page, you can also activate your FTP transfer (this is set up on the profile page), add new sequences, activate and use the Always ON features, or even launch a video LiveStream if the camera has been set up for it (FTP transfer and video LiveStream available as part of a specific myTikee subscription plan).

Viewing and editing sequences

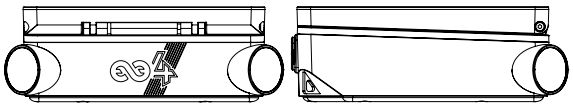
You can consult the information of your timelapse sequences by clicking on the chosen sequence.
You can add new sequences .

You can also remotely modify your sequences, in particular the time slot and the active days.

Sequence additions and modifications will be taken into account the next time the Tikee is connected to the cloud platform (this can be forced thanks to the Always ON function.

To find out more about all the possibilities of the myTikee cloud platform, register for free on **my.tikee.io** and follow the many tutorials and articles on **help.enlaps.io/en/**

6. Product brief

Version	tikee4
Weight	1,6 kg
Dimensions	 200 × 200 × 70 mm
Cameras	2 camera modules for panoramic photos **Image Sensors :** Sony 12 Mpx **Lenses :** Wide angle lenses DFOV 149°/HFOV 124°, aperture F2.8 **Full resolution image size (per sensor) :** 4032 x 3024 **Sensors size :** 1 / 2,3 **Pixel size :** 1,55µm
Weatherproof	**IP 66 :** Designed for extended outdoor use (resistant to sand, snow, rain, etc.) Weatherproof connector for additional solar panel if required **Operating temperature :** -10 / + 50 °C **Storage temperature :** -25 / + 60 °C
Storage	MicroSD card *(not included)* - Up to 1 TB
Battery and solar panel	Built-in Li-Ion battery – 25600 mAh Solar Panel: 4.1 Wp Monocrystalline
Charge	USB-C 5V / 3A max. External waterproof connector 5V/2A max.
Wireless upload	Periodic or «Always-On» connectivity over 4G/LTE *(telecom subscription and sim card not provided)* Periodic connectivity over wifi Resolution of left and right images sent to the web application : selectable from 3 dimensions (in pixels) : **Small (S)** - 2048 x 1536 per image, approx. 1 MB per pair (panoramic image after stiching : 3280 x 1180) **Medium (M)** - 2664 x 1998 pixels per image, approx. 2.5 MB per pair (panoramic image after stiching : 4260 x 1534) **Large (L)** - 4032 x 3024 pixels per image, approx. 5MB per pair (panoramic image after stiching : 7360 x 2650)
Live stream	Single-lens video stream - 60sec Ratio 4:3 Frame rate 30 fps Adaptive bitrate *(requires a 4G/LTE connection, activation of the Always ON feature and a myTikee subscription plan)*
Photo & video snapshots	On-demand triggering of photos or videos *(requires a 4G/LTE connection and activation of the Always ON feature)*
Video rendering	Up to 6K, available as part of a myTikee subscription plan
Pictures format	Jpeg DNG Jpeg + DNG

Picture interval	**Long term sequence :** 30 seconds minimum **Event or Burst sequence :** 5 seconds minimum User-defined schedules
Adaptative interval	Mode that automatically adjusts the shooting interval to optimize energy consumptionn
Upload Mode	**Normal mode :** send a batch of photos (25 photos by default, configurable) **Minimal mode :** send one photo, once a day at a set time **Sample mode :** samples of photos sent, sends one photo out of N (configurable value) The camera's operating status are sent with each connection. Note : The selected mode, capture settings, and network quality may significantly impact the camera's energy consumption.
Geolocation	Embedded GPS (A-GPS technology) *(requires a 4G/LTE connection)*
Wireless data settings	Bluetooth Low Energy IOS and Android compatible mobile application Minimum smartphone compatibility: Bluetooth 4.1 / Android 8 / IOS 11
Secure Tikee installation	Metal insert to attach a padlock
Fixation mounting	Standard ¼" camera screw
Embedded software update	**Near the camera** : from the SD card, from the wifi or 4G/LTE network **Remotely** : from the myTikee web platform with Always ON functionality *(requires a 4G/LTE connection and activation of the Always ON feature)*
4G LTE modem compatibility	4G/LTE global compatibility LTE-FDD: B1/B2/B3/B4/B5/B7/ B8/B12/B13/B18/B19/ B20/B25/B26/ B28/B66 LTE-TDD: B34/B38/B39/ B40/B41

7. Maintenance and cautions

A microfiber cloth is included in the package. You can use it to ensure the maintenance of the camera.

Follow the instructions below to get the best performance from your Tikee.

The camera is guaranteed IP66. If the cap protecting the USB-C slot or the microSD and micro-SIM slot are opened, the waterproofness of the Tikee is not guaranteed

Make sure that all of the caps are closed before use to ensure water-resistance.

About the waterproofing of Tikee:
- Do not immerse.
- Inspect Tikee from the outside.
- Check and guarantee the closing of the caps.
- Do not expose / use a damaged Tikee.

Electrical characteristics :
Supply voltage at the external and micro-USB connectors should be between +4.5 Vdc up to +5.5 Vdc (+5 Vdc typical).
Use AC/DC/ power supply tpe LPS, Limited Power Source (according to IEC EN 60950-1 Ed2) or type ES1, PS2 (according to IEC EN 62368-1).
Consumption max under 5Vdc : 2000 mA
Built-in-Lithium battery : Typical voltage : 3.6V / Typical capacity 25.6 Ah

Temperature range :
Operating temperature: -10° C / + 50° C
Storage temperature: -25° C / + 60° C
Charge temperature : -10°C / +55°C

Info: Tilt the solar panel so as not to increase the temperature in the Tikee. Indeed, a solar panel heats up and can increase the temperature of the Tikee's casing by a few degrees. Tilting the panel allows air to circulate between the panel and the Tikee's casing.

Before closing the covers, make sure that no debris is on the seal. If necessary, clean it with a cloth.
Before opening the covers, make sure that the camera is free of water and debris
If the camera is dirty, you can clean it with a damp soft cloth.

To clean the lenses, wipe them with a soft cloth. Don't insert any foreign object around the lenses.
If necessary, clean the solar panel. To do this, use clear water with a soft cloth.

Special precautions:
- Do not store Tikee with a discharged battery (level below 50%).
- Do not insert objects (or metal) into the microSIM and microSD card slots.

If there are signs of condensation or moisture inside a lens, turn off the Tikee (do not charge) and contact customer support.

Enlaps support

For questions relating to your Tikee camera or mobile & cloud platform, you can read our FAQ :
https://help.enlaps.io/en/
You can also contact us on **https://enlaps.io/contact**

In the event of an identified failure, a return of the product to our premises will be necessary for a diagnosis.

8. Informations about frequency bands (4G/LTE & 3G)

Radio-Frequency technologies embedded in Tikee 4 device :

RF technology	Frequency bands	Max power
WIFI	2.4-2.4835Ghz	17.2 dBm (EIRP)
3G/4G	LTE-FDD: B1/B2/B3/B4/B5/B7/ B8/B12/B13/B18/B19/ B20/B25/ B26/ B28/B66 LTE-TDD: B34/B38/B39/ B40/B41 UMTS/HSPA+ : B1/B2/B4/B5/B6/ B8/B19	-34.3 dBm (ERP)
BLUETOOTH	2.4Ghz	-1.1 dBm (EIRP)
GPS	1.57542GHz	Reception Only

ENLAPS Tikee
FCC ID : 2ASLI-TIKEE003
IC : 24785-TIKEE003
Note - Modular Approval :
Contains :
FCC ID : 2AJYU-8PYA007
IC : 23761-8PYA008
FCC ID : S9NBNRGM2SA
IC : 8976C-BNRGM2SA

Caution: the user that 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 instruction, 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 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 circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC RF radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
This device complies with ISED radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

9. Battery information

Integrated lithium-ion battery:
Typical voltage: 3.6 V / Typical capacity: 25.6 Ah / 92Wh.
Temperature ranges :
Operating and charging temperature: -10°C / +50°C
Storage temperature: -25°C / +60°C

Shooting while charging

You can shoot while your Tikee is connected to a USB-C cable (not supplied).
Note: as the cap of USB port is open while loading, the waterproofness of the Tikee is no longer guaranteed.

WARNING: Use only chargers labelled : output 5 V 2A min.

Storage and handling of the battery

The camera contains delicate parts, including the battery. Do not expose your camera at temperatures outside the intended range of use. Too low or too high temperatures could temporarily reduce the battery life or adversely affect the correct functionning of the camera.

Do not dry the camera with the help of an external source of heat such as a microwave oven or hairdryer.

Do not store Tikee with a discharged battery (level below 50%).

Make no unauthorised changes on the camera. You might compromise your security and the performance of the camera, breaking the regulations in force and void the warranty.

Warning: Never let fall, disassemble, open, crush, bend, deform, pierce, lacerate, expose to the microwave, incinerate or paint the camera. Do not use the camera or battery if these have been damaged, for example if they are cracked, breakthroughs, or if they took the water. Disassembly or drilling of the battery can cause an explosion or fire.

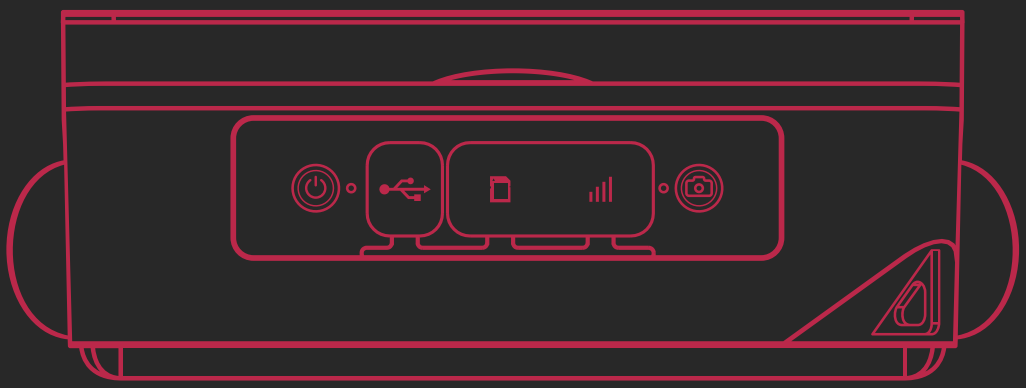
Treatment of electrical and electronic equipment at end of life

This symbol indicates that this product should not be disposed with unsorted household waste. A system of elimination and treatment specific to electrical and electronic equipment used, whose use is mandatory, has been implemented including a free right of recovery of used equipment on the occasion of the purchase of equipment new and separate collection by an accredited body. For more information, you can contact your local Council. A correct disposal of electronic and electrical equipment used ensures treatment and an appropriate value to avoid damage to the environment and human health and conserve natural resources.

10. Trademarks

Join us on :

ENLAPS
26 Av. Jean Kuntzmann,
38330 Montbonnot-Saint-Martin



designed by enlaps