



User Guide

YOYOCam

GSM Remote Surveillance Camera

V2.0, November 2011

Important Information

Please read this information before using your YOYOCam.

General

- YOYOCam is a GSM (2G) product. Make sure your SIM card and subscription support services over 2G for SMS, MMS and voice calls.
- All GSM based functions, such as calls and SMS messaging, are dependent on network performance and availability.
- While YOYOCam is on a voice call (Alarm call, Emergency call, dial-in to listen call), it is unable to send SMS or MMS messages.
- Test any Voice Call Alarm and Emergency Alarm calls to landlines to make sure that YOYOCam does not block the landline user from making further calls. (This is a property of the landline telephone network from some providers).
- Photography in public places may be subject to restrictions – make sure YOYOCam is operated according to all applicable laws.

Safety and Usage Guidelines

- YOYOCam must be used according to the instructions in this User Guide.
- When inserting or removing the SIM card, do not touch the gold connectors.
- Use only the approved YOYOMotion AC power adaptor.
- The AC Power adaptor is for indoor use only and must not be used in damp conditions.
- Treat your YOYOCam carefully; store it safely and do not drop or throw it or otherwise subject it to shock.
- Do not expose your YOYOCam to dust, liquid, moisture or humidity.
- Do not use or store your YOYOCam at extreme high or low temperatures.
- Do not expose your YOYOCam to naked flames, lit tobacco products or other heat sources.
- Do not use your YOYOCam in hospitals or near medical equipment.
- If you have personal medical devices such as a pacemaker, consult your physician and the manufacturer for advice.
- Do not use your YOYOCam in aircraft or in any place where use of radio transmitters is prohibited.
- Do not use your YOYOCam in places where a potentially explosive atmosphere is present.
- Do not use YOYOCam in proximity to car airbags.
- Do not attempt to take your YOYOCam apart; there are no user-serviceable components inside the product.
- Do not allow children to play with your YOYOCam; small parts such as SIM cards could be detached and represent a choking hazard.
- For optimum performance do not cover your YOYOCam; position it with good access to the mobile signal.

GSM calls and GSM messages

- Emergency calls, calls and messages via the GSM network cannot be guaranteed in all circumstances.
- There is no guarantee that calls can be connected or messages can be sent in all areas or in all mobile networks as the functionality of the GSM based functions are dependent on network performance and availability.
- You should not rely on any voice call capability that your YOYOCam provides for emergency or essential communications.

Battery

- Battery performance (device runtime) depends on signal strength, temperature, usage pattern and other factors.
- The battery may have temporarily reduced capacity when new or after a prolonged period without use.
- Charge the battery completely when using YOYOCam for the first time.
- Turn of the device and disconnect the power adaptor before removing or inserting the battery.
- Do not allow the battery contacts to touch any metal object.
- The battery should not be exposed to temperatures above 60°C.
- Use only the supplied battery or accessory/service replacement battery from YOYOMotion.
- Dispose of any old battery in accordance with the disposal guidelines below.
- **WARNING:** The battery can explode if the product is disposed of in fire.
- **NOTE:** The remote controls are powered by a battery type CR2032. If you need to replace this battery, ensure that the replacement is a CR2032 manufactured by Panasonic.

Disposal and Recycling

- Do not dispose of your YOYOCam with normal household waste.
- Dispose of your YOYOCam at an appropriate collection point for electronic equipment.
- For more information, contact your local authority, your household waste collection depot or the retailer where you bought your YOYOCam.

About this Guide

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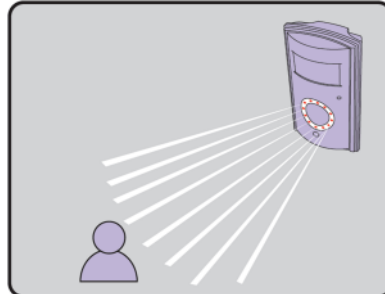
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YOYOCam Features

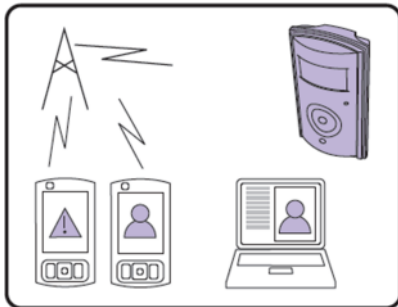
Insert a SIM card, perform a few simple configuration steps and YOYOCam is ready to guard your property.



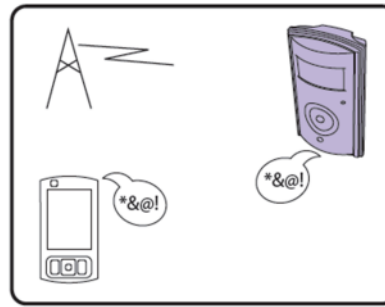
Infrared body detector and camera-based movement detection



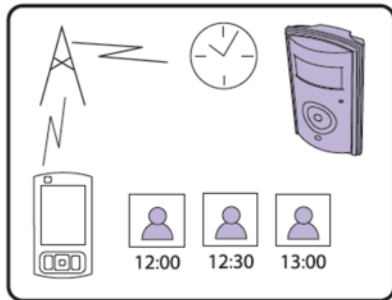
Infrared LEDs enable the camera to capture images in the dark



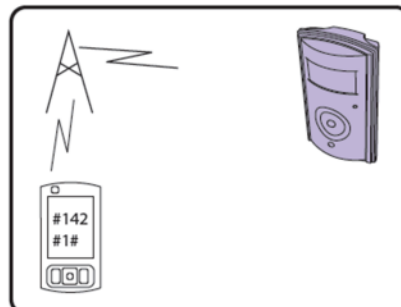
Alarm by SMS (text), MMS and Email (including images)



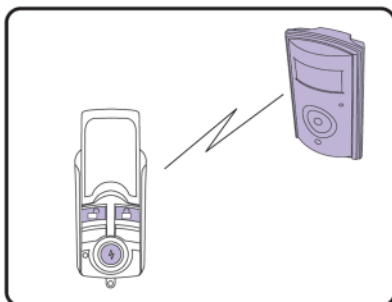
Dial YOYOCam and listen in



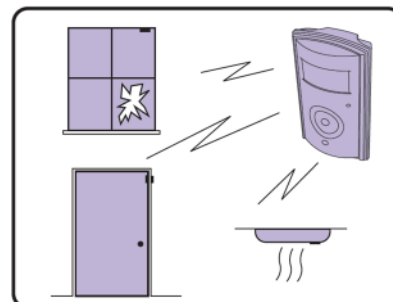
Receive images at pre-set intervals according to a schedule



Simple configuration via SMS commands; request images by SMS



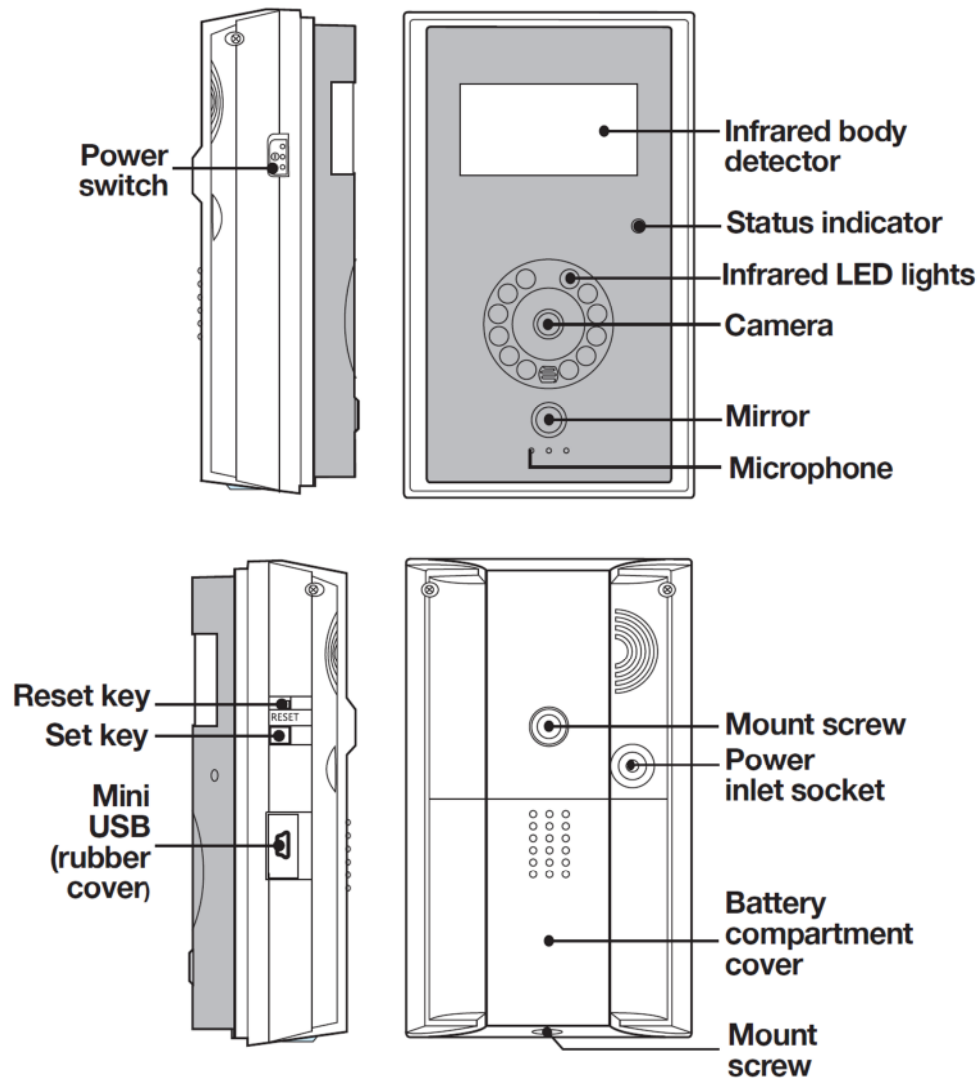
Remote control arms and disarms YOYOCam and has programmable Emergency button



Link up to 15 wireless detectors, for example window, door, smoke

Get to know your YOYOCam

YOYOCam unit



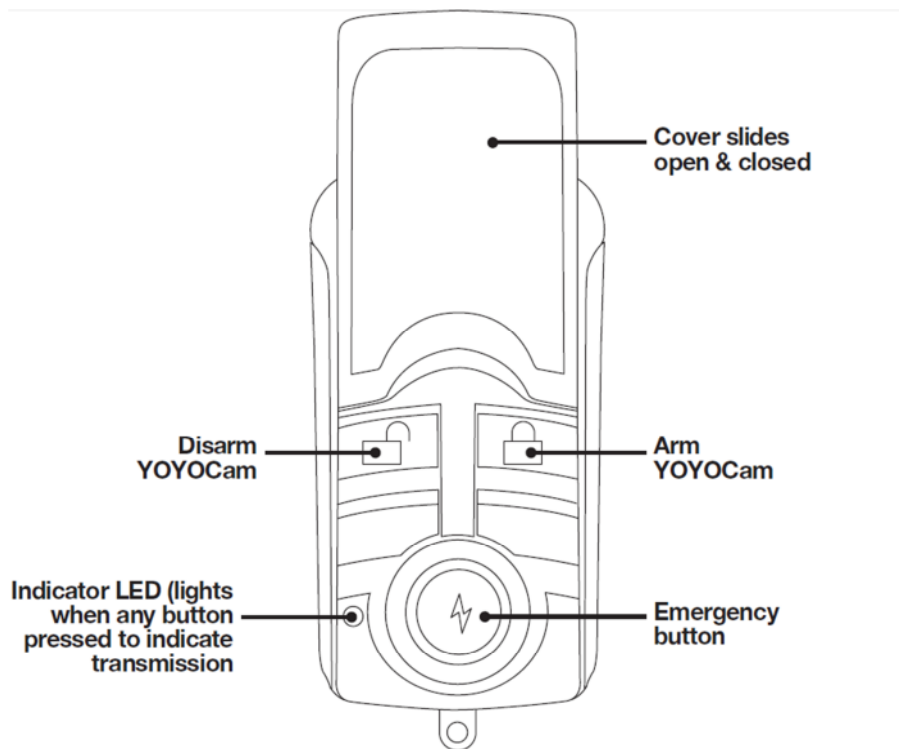
Status Indicator


- | | | | |
|--|---|--|---------------------------------------|
| | Searching for network / SIM PIN enabled | | Armed |
| | Alarm triggered | | Disarmed / Waiting for Master number |
| | No SIM card / System error | | Sending messages / Ongoing voice call |
| | Loading wireless remote sensor | | Factory reset / Loading sensor. |

Key

- Fast flash (two flashes per second)
- Slow flash (one flash per second)
- Two second flash

Remote Control



When the Emergency button  is pressed, YOYOCam calls the Master and any added Emergency numbers up to three times in sequence until the call is answered, at which point the audio from YOYOCam is heard.

SMS/MMS mode can be used as an alternative. When the Emergency button is pressed YOYOCam acknowledges with a bleep, and sends an SMS alert followed by an MMS with an image to the Master and each added Emergency number.

See *Emergency Button* for further information.

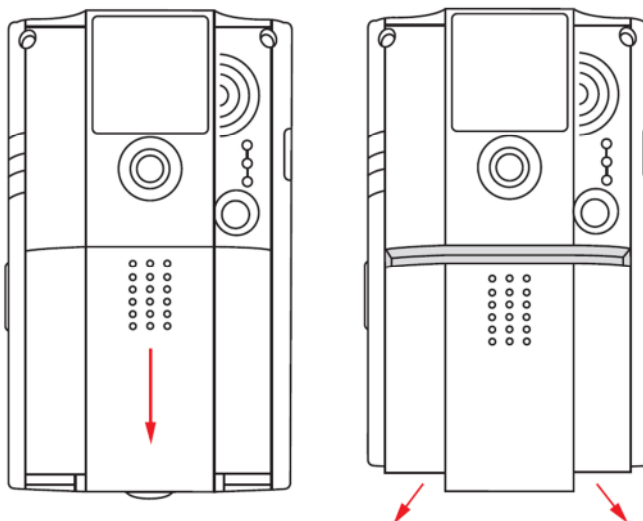
NOTE: The remote control needs to be paired with YOYOCam before use – see *Pairing your YOYOCam with a Remote Control*.

NOTE: The remote control is powered by a battery type CR2032. If you need to replace this battery, ensure that the replacement is a CR2032 manufactured by Panasonic.

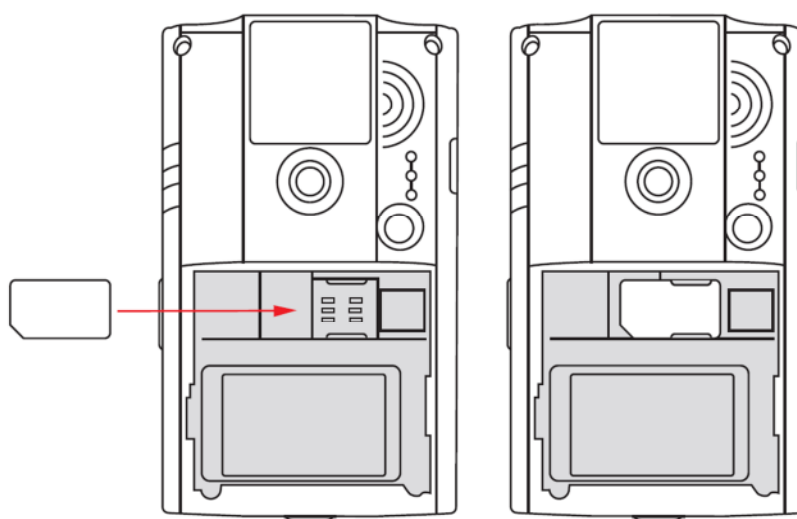
Getting started

STEP 1. Prepare YOYOCam

1. Slide the battery compartment cover downwards.
2. Lift the battery cover away from the device.



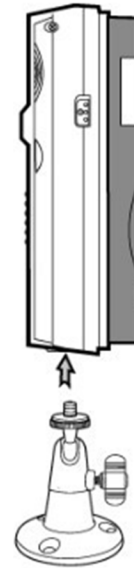
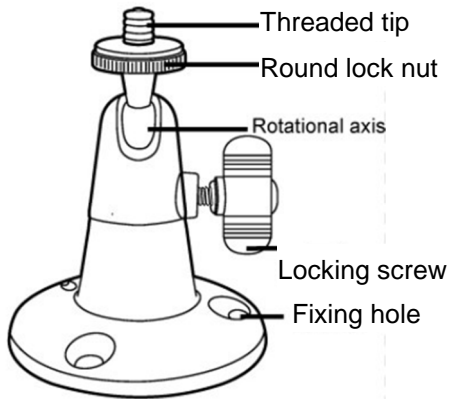
3. Hold the SIM card in line with the slot (gold contacts on the underside) and slide it in to position.
 - **WARNING:** Always be sure to switch off YOYOCam and disconnect the power before inserting or removing the SIM card.
 - **WARNING:** Do not touch the gold contacts of the SIM Card.
 - **Note:** The SIM PIN must be disabled. Use an ordinary mobile phone to check and, if necessary, turn off SIM Lock.



4. Replace the battery compartment cover

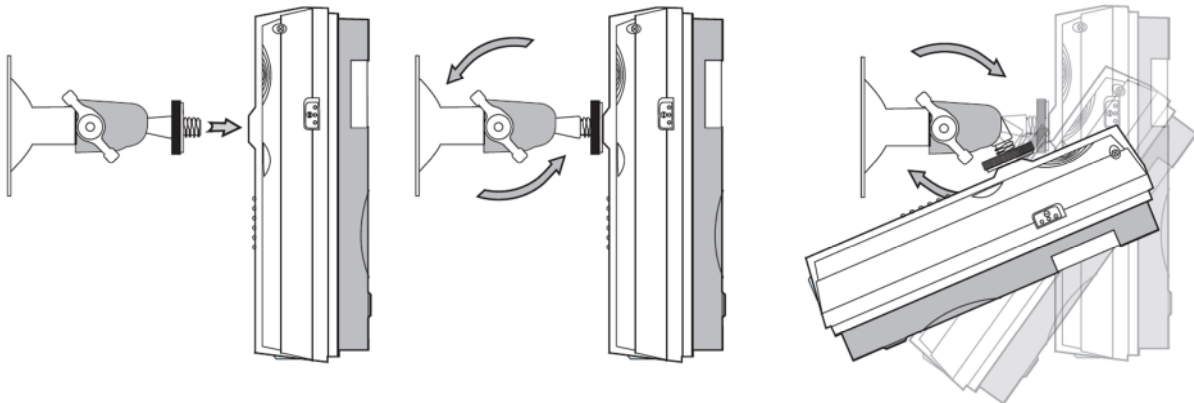
STEP 2. Mount YOYOCam

A mounting bracket is included with YOYOCam



To mount YOYOCam:

1. Mount the bracket on the wall, ceiling or other surface as required.
2. Attach YOYOCam to the threaded tip of the bracket.
3. Screw the round lock-nut towards YOYOCam to secure YOYOCam on the mount.
4. Loosen the locking screw so that the angle can be adjusted.
5. Tighten the screw to fix YOYOCam in the desired position.



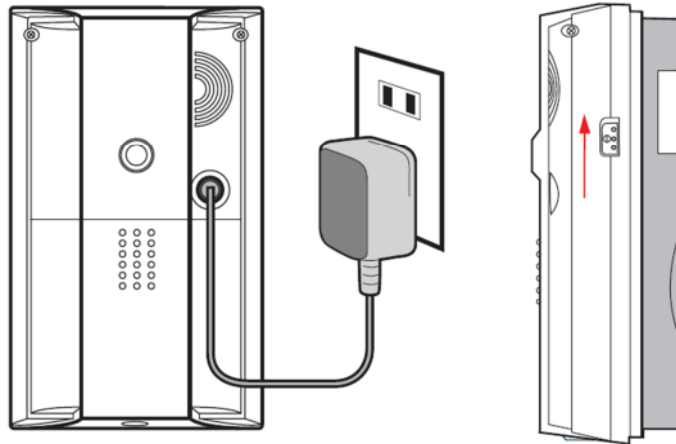
Note: There is a second mount position on the underside of YOYOCam. The mount screw-threads are standard photographic size, so YOYOCam can, for example, be mounted on a camera tripod.

For best results:

- Avoid pointing YOYOCam at bright lights or windows.
- Position high up so that the camera is angled at least 30 degrees downwards.
- Position in a location where there is adequate GSM signal strength.
- Make test shots (e.g. using command `#03#`) to check image quality. Adjust angle and/or position of YOYOCam until images are optimal.
- Check that the infrared body detection and/or camera movement detection is working.

STEP 3. Set Up YOYOCam

1. Connect the cable from the power adaptor to the power inlet socket on the back panel, as shown.



2. Plug the power adaptor in to a wall outlet or socket strip.
3. Slide the power switch to the UP position to turn on YOYOCam
4. After approximately 40 seconds, YOYOCam bleeps to indicate that the GSM network has been found.
5. From your mobile phone send an SMS with text #00# to YOYOCam.

6. YOYOCam confirms your phone as Master by SMS, *Välkommen till YOYOCam. Lösen är '1234'*, (Welcome to YOYOCam. The default password is 1234.) You are now the Master and have full control over YOYOCam.

Network Operator	Command to send
ACN	#145#ACN#
Cell Mobile SE	#145#CELLMOBILE#
Chess NO	#145#CHESSNO#
Glocalnet	#145#GLOCALNET#
Halebop	#145#HALEBOP#
Parlino	#145#PARLINO#
Superstar	#145#SUPERSTAR#
TDC Song NO	#145#TDCNO#
TDC Song SE	#145#TDCSE#
Telmore DK	#145#TELMORE#
Universal	#145#UNIVERSAL#
Ventelo NO	#145#VENTELONO#
Ventelo SE	#145#VENTELOSE#

7. The SMS responses are in Swedish by default. Send #127#1# to switch to English.

8. Network MMS settings are configured automatically for the major Scandinavian networks. If your network operator is in the table to the right, you must now send the command indicated in order to configure MMS. See *Mobile Network settings* if you need to manually check or configure MMS.

9. Arm YOYOCam
 - Send an SMS with text #01# to arm YOYOCam.
 - Send an SMS with text #02# to disarm YOYOCam.

YOYOCam is now operational.

Default Sensor and Alarm Behaviour

When armed, YOYOCam will raise the alarm when a sensor is triggered. By default, the built-in infrared body sensor is enabled and camera movement detection is disabled. See

Sensor Settings for more information.

When a sensor triggers the alarm, YOYOCam sends an SMS to the Master followed by an MMS with images. Other options include voice call and E-Mail alarms. Detector, image and alarm settings can be configured. For more information, see *Alarm Settings*.

STEP 4 – Refine YOYOCam Settings

Here are some of the settings that you may like to change in order to configure YOYOCam to your needs.

Optimize image settings

By default, YOYOCam takes five images at an interval of 0.5 seconds between each shot. The image size is 320 x 240 pixels. You may wish to have fewer images at higher resolution, e.g. 2 images at 640 x 480 pixels. (2 images is the maximum at this resolution).

Command: #33#2#

Response: *Number of Alarm images has been set to 2*

Command: #32#3#

Response: *Image size has been reset to 3* (Size 3 = 640 x 480 pixels)

For more information, see *Image settings*.

Configure the sensors which detect an alarm condition

By default, YOYOCam detects movement using the infrared body sensor. Camera movement detection is also available.

Infrared Body Sensor:

Turn On: #118#1# (Default)

Response: Infrared sensor - enabled

Turn Off: #118#0#

Response: Infrared sensor – disabled

Camera Motion Detection:

Turn On: #22#1#

Response: Motion detection - enabled

Turn Off: #22#0# (Default)

Response: Motion detection – disabled

For more information, see

Sensor Settings.

Configure how YOYOcam signals alarms

By default, YOYOcam sends SMS and MMS to the Master when an alarm is triggered. You can also send alarms by E-mail and voice calling. Additionally, YOYOcam can be set to bleep when the alarm is triggered. For more information, see *Alarm Settings*.

Change the Password

For security, you must immediately change the Password from the default of 1234 to your own value.

Command: #04#OldPassword#NewPassword#

Example: #04#1234#6789#

Response: Password was successfully changed to 6789

For more information, see *Guest Users & Password*.

Add users

Add users so that other people can also control YOYOcam, request images and dial in to hear audio from YOYOcam.

Command: #06#UserNumber#

Example: #06#+46702222222#

Response: +46702222222 USER phone number has been added

For more information, see *Master, Users & Guests*.

Add Remote Controls

Before the supplied Remote Controls work with YOYOcam, they must be paired. You can also configure how YOYOcam responds when the Emergency button is pressed. See *Using the Remote Control* for more information.

Interacting with YOYOCam

General Command Format

Commands and Parameters

Master and Users interact with YOYOCam by sending SMS messages that contain specially formatted textual commands. YOYOCam typically responds with confirmation text by SMS. Where the command is a request for images, these are sent by MMS or E-mail.

Generic format of a simple command:

Command: *#CommandCode#*

Example: *#01#*

Response: *YOYOCam is armed*

Generic format of a command that needs extra information (a parameter):

Command: *#CommandCode#Parameter#*

Response: SMS confirmation or images by MMS or E-mail

Example: *#06#+46702222222#*

Response: *+46702222222 USER phone number has been added*

Note: There must never be any space characters in a command.

Generic format of a command taking multiple parameters:

Command: *#CommandCode#Parameter1#Parameter2#Parameter3#Parameter4# ...*

Example: *#106#+46704444444#+46705555555#+46706666666#*

Response: *+46704444444*

+46705555555

+46706666666

Emergency phone number added

Note: Commands always begin and end with the # character, and a # separates each required parameter.

Note: In some cases all parameters must be supplied; in others like the one above, as many parameters as required can be supplied.

Telephone Numbers

Some commands require telephone numbers parameters, for example when adding a User or an Emergency number. You can supply numbers in International format (recommended) or national format.

For example:

International format: +46702222222

National format: 0702222222

Note: Do not include spaces or any other character in phone numbers.

YOYOCam treats a number in International format as different from one in National format. For example, if you send #06#+46702222222# and #06#+46702222222#, YOYOCam will not recognise that they are both actually the same user, and will configure two users, one with the number in each format.

Switch YOYOCam On and Off

Switching On YOYOCam

To switch on YOYOCam:

1. Slide the Power Switch to the UP position.
2. The Status Indicator is orange ● for a few seconds.
3. The Status Indicator turns red ● for approximately 3 seconds.
4. The Status Indicator flashes red ✖ while YOYOCam searches for the mobile network.
5. YOYOCam beeps when the network has been found.
6. The Status Indicator shows ● if YOYOCam is armed or ✖ if disarmed.

Switching Off YOYOCAM

To switch off YOYOCam:

- Slide the Power Switch to the DOWN position.

Battery and External Power Notifications

YOYOCam warns you by SMS when external power is connected and disconnected:

External power applied: *External power – resumed*

External power removed: *External power lost. Running on battery.*

For more information see *SMS Notification when power supply changes.*

Arm and Disarm YOYOCam


When YOYOCam is armed, it will raise the alarm when a sensor is triggered. When YOYOCam is disarmed, it will not raise any alarms. YOYOCam is typically disarmed when the property is attended, for example during working hours, when normal movements would cause only false alarms.

YOYOCam is armed when the property is unattended, for example outside office hours.


YOYOCam can be manually armed or disarmed. Alternatively YOYOCam can automatically arm and disarm itself according to a schedule.

Arming and Disarming YOYOCam by SMS

To arm YOYOCam by SMS:

Command: #01#
Response: YOYOCam is armed
Status Indicator: 



To disarm YOYOCam by SMS

Command: #02#
Response: YOYOCam is disarmed
Status Indicator: 



Arming and Disarming YOYOCam using the Remote Control

Note: The Remote Control must first be paired with YOYOCam. See Pairing your YOYOCam with a Remote Control for more information.

To arm YOYOCam using the Remote Control:

1. Press the  button on the Remote Control.
2. YOYOCam bleeps
3. Status Indicator shows 

To disarm YOYOCam using the Remote Control:

1. Press the  button on the Remote Control.
2. YOYOCam bleeps
3. Status Indicator shows 

To receive SMS notification when YOYOcam is armed or disarmed using the Remote Control:

Turn On: #137#1#

Response: SMS upon status change by remote control - enabled

Turn Off: #137#0# (Default)

Response: SMS upon status change by remote control - disabled

Arming and Disarming YOYOcam by Schedule (Day and Time)

YOYOcam can be set to automatically arm and disarm itself according to a pre-set schedule. You can set:

- up to three armed periods per day
- a different schedule for each day, for example workdays and weekends

To set the armed periods

Command: #129#Day#ArmTime1#DisarmTime1#ArmTime2#DisarmTime2
#ArmTime3#DisarmTime3#

Example: #129#0000#0800#1700#2359# (armed outside working hours 0800-1700)

Response: Parameter is 0000#0800#1700#2359#

Note: Time is expressed as HHMM, for example 0000 is midnight, 1200 is mid-day, 1730 is 17:50 (5:30pm), 2359 is 23:59 (11:59PM).

Day	Day(s) of the week
0	Every day
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
8	Monday to Friday

To enable/disable Arm/Disarm by schedule:

Turn On: #128#1#

Response: Scheduled arming and disarming - activated

Turn Off: #128#0# (Default)

Response: Scheduled arming and disarming – deactivated

Dial in and listen to audio

Master and Users can dial in to YOYOCam and listen to the audio picked up by the built-in microphone. YOYOCam is silent throughout this operation – you cannot be heard.

1. Dial YOYOCam's number (voice call)
2. Call rings at YOYOCam for approximately 10 seconds
3. YOYOCam answers and audio from YOYOCam can be heard.
4. Hang up the call to end listening.

Note: Only one person can dial in and listen at once.

Note: YOYOCam cannot send SMS or MMS while a call is connected.

Request Images from YOYOCam

Master, Users and Guests can request images from YOYOCam at any time. YOYOCam can also be set to automatically send images according to a timetable.

Request one image

To request a single image to be sent to your mobile by MMS:

Command: #03#

Response: MMS message containing the image

Note: The image size is the size set by the Image Size setting (default 320 x 240)

See *Image settings* for more information about the image format.

Request a sequence of images

You can request YOYOCam to take up to 8 images in a sequence. The interval between the images is determined by the Image Interval setting (default 0.5 seconds). The images are sent to the requesting Master or User by MMS.

To request a sequence of images:

Command: #03#Quantity#

Response: MMS message containing the images

Note: The image size is the size set by the Image Size setting (default 320 x 240)

Note: Quantity can be 1-8 for image sizes 160 x 120 and 320 x 240. Quantity must be 1-2 for image size 640 x 480

See *Image settings* for more information about the image format.

Request a sequence of images (send to E-mail address)

You can request YOYOCam to take up to 8 images in a sequence. The interval between the images is determined by the Image Interval setting (default 0.5 seconds). The images are sent to the

requesting Master or User by E-Mail.

To request a sequence of images to my E-mail address:

Command: #03#Quantity#1#

Response: SMS message: *Sending to me@myemail.com with Quantity pictures.*
E-mail message containing the images.

Note: The image size is the size set by the Image Size setting (default 320 x 240)

Note: Quantity can be 1-8 for image sizes 160 x 120 and 320 x 240. Quantity must be 1-2 for image size 640 x 480.

Note: User's E-mail address must have been configured

See *Image settings* for more information about the image format.

Request a sequence of images (send to any required mobile phone or E-mail address)

Master and users can request images to be sent to any mobile phone by providing the mobile phone number, or to any E-mail address. You can request YOYOCam to take up to 8 images in a sequence. The interval between the images is determined by the Image Interval setting (default 0.5 seconds). The images are sent by MMS if a mobile number is provided, or E-mail (using the mobile operator's MMS service to send to the E-mail address) if an E-mail address is provided.

To request a sequence of images to another mobile number or E-Mail:

Command: #30#NumberOrEmail#Quantity#

Example1: #30#+4670222222#2#

Response1: MMS message containing the images is sent to +4670222222

Example2: #30#user@emailaddress.com#

Response2: E-mail containing the images is sent to user@emailaddress.com

Note: The image size is the size set by the Image Size setting (default 320 x 240).

Note: Quantity can be 1-8 for image sizes 160 x 120 and 320 x 240. Quantity must be 1-2 for image size 640 x 480.

See *Image settings* for more information about the image format.

Request YOYOCam to automatically send images according to a schedule

YOYOCam can be set to automatically send images according to a pre-set schedule. You can set:

- up to three active periods per day
- a different schedule for each day, for example workdays and weekends

To set the time periods and intervals:

Command: #116#Day#StartTime1#EndTime1#IntervalTime1
#StartTime2#EndTime2#IntervalTime2
#StartTime3#EndTime3#IntervalTime3#

Example: #116#8#0000#0800#60#1700#2359#60#

Response: Periodic sending of images parameter is 8#0000#0800#60#1700#2359#60#

Note: Time is expressed as HHMM, for example 0000 is midnight, 1200 is mid-day, 1730 is 17:50 (5:30pm), 2359 is 23:59 (11:59PM).

Note: IntervalTime is in the range 10 to 480 minutes.

Note: The image size is the size set by the *Image Size* setting (default 320 x 240).

Day	Day(s) of the week
0	Every day
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
8	Monday to Friday

To enable/disable periodic image sending:

Turn On: #115#1#

Response: Periodic sending of images - enabled

Turn Off: #115#0# (Default)

Response: Periodic sending of images - disabled

YOYOCam Settings

Master, Users & Guests

YOYOCam has three levels of user:

- **Master:** has complete control over YOYOCam, receives alarms & notifications, and can request images.
- **User:** has some control over YOYOCam and can request images.
- **Guest:** can request images using the Password supplied by the Master.

Master

The Master has complete control over YOYOCam and can use any command. The Master sets up Users and configures YOYOCam as required. There is one Master. If necessary, someone else can be the initial Master and perform the configuration, then use the *Change Master Number* command to hand YOYOCam to the person who will be Master.

YOYOCam leaves the factory with no Master user defined. Performing a Factory Reset operation also clears the Master user, and it must be set again as if for the first time.

To set Master user for the first time:

From your mobile phone, either:

1. Send an SMS with text #00# to YOYOCam.
2. YOYOCam confirms your phone as Master by SMS, *Välkommen till YOYOCam. Lösen är '1234'*, (Welcome to YOYOCam. The default password is 1234.) You are now the Master and have full control over YOYOCam.

Error Responses

MASTER phone number already exists	YOYOCam already has a Master number configured. Note: YOYOCam gives this response if you send #00# from the configured Master phone. From the Master's or a User's mobile phone, you can send the #07# Check Status & Settings command to get the Master number. If you have lost the Master number, you must perform a Factory Reset and reconfigure YOYOCam from the beginning.
------------------------------------	---

To change Master number:

Command: #14#NewMasterNumber#

Example: #14#+4670222222#

Response: New MASTER phone number is +4670222222

Note: response is sent to the old master number. No response is sent to the new Master number.

WARNING: Be very careful to send the correct NewMasterNumber. If you get it wrong you must either send this command from the number you entered in error or perform a Factory Reset and reconfigure YOYOcam from the beginning.

User

The Master can add up to 10 users.

To add a user:

Command: #06#UserNumber#

Example: #06#+4670222222#

Response: +4670222222 USER phone number has been added

Error Responses

UserNumber USER phone number already exists	UserNumber has already been set up. Note that YOYOcam treats the national and international format of the same number as different and will not issue this error if both formats are sent.
USER phone number list is full. Please delete old numbers first.	YOYOcam already has 10 User numbers set up. Use #07# to check and then delete unwanted number(s) to make space for the new number(s).

To add several users in one command:

Command: #06#UserNumber1#UserNumber2#UserNumber3#UserNumber4#

Example: #06#+4670222222#+4670333333#+4670444444#

Response: +4670222222
+4670333333
+4670444444
USER phone number has been added

Error Responses as above

To find out which User numbers are set:

Command: #07#

Response: MMS message including YOYOcam status and User number(s)

To delete a user:

Command: #113#UserNumber#

Example: #113#+4670333333#

Response: +4670333333 USER phone number has been deleted

To delete several Users in a single command:

Command: #113# UserNumber1#UserNumber2#UserNumber3#UserNumber4#

Example: #113#+46704444444#+46705555555#+46706666666#

Response: +46704444444

+46705555555

+46706666666

USER phone number has been deleted

Guest Users & Password

The Master can invite guests to access YOYOcam. Guests can request and view images from YOYOcam. The Master does not need to pre-define Guests to YOYOcam. Instead, the Master gives guests YOYOcam's phone number and Password (default 1234). Guests have to include the password in the commands they send to YOYOcam. To withdraw access from Guests, the Master simply changes the Password.

To change the Guest Password:

Command: #04#OldPassword#NewPassword#

Example: #04#1234#6789#

Response: Password was successfully changed to 6789

Error Responses

Wrong password	OldPassword is incorrect
You are not authorized to use this command	Only the Master can change the password
Password should be a 4 digit number	Password must be exactly 4 digits long

Note: You should change the default password when you first set up YOYOcam; do not leave it set at the default 1234.

Note: If you have lost the Password, you must perform a Factory Reset and reconfigure YOYOcam from the beginning.

Sensor Settings

You can set up which sensors trigger the alarm when YOYOCam is armed.

Infrared Body Detector

The infrared body detector works by detecting the heat emitted from a body moving in front of it.

Turn On: #118#1# (Default)

Response: Infrared sensor - enabled

Turn Off: #118#0#

Response: Infrared sensor – disabled

Note: When YOYOCam is operating on low battery, the infrared body detector is automatically disabled. It is not possible to re-enable it until the battery has been charged or external power is connected.

Camera Motion Detection

YOYOCam takes images periodically and compares the latest image with the previous one. If there is a significant difference, YOYOCam assumes something has moved, for example a person has walked in front of the camera. YOYOCam raises the alarm.

Turn On: #22#1#

Response: Motion detection - enabled

Turn Off: #22#0# (Default)

Response: Motion detection – disabled

Note: When YOYOCam is operating on low battery, the camera movement detector is automatically disabled. It is not possible to re-enable it until the battery has been charged or external power is connected.

Note: Be careful to position YOYOCam so that there is no unwanted motion in view, for example a tree shaking in the wind or a cat jumping in to the field of vision.

Motion Detection Sensitivity

You can adjust the sensitivity for motion detection on a scale from 1 (least sensitive) to 5 (most sensitive). The default is 4.

Command: #36#Sensitivity#

Example: #36#3#

Response: Motion detection sensitivity has been set to 3

Wireless Sensors

You can also add external wireless sensors which trigger the alarm.

Alarm Settings

You can tell YOYOCam what to do when the alarm is triggered

Warning Bleep from YOYOCam.

YOYOCam beeps for approximately 5 seconds when the alarm is triggered.

Turn On: #130#1#

Response: *Warning signal - enabled*

Turn Off: #130#0# (Default)

Response: *Warning signal - disabled*

SMS Message

YOYOCam sends the Master an SMS when the alarm is triggered, for example:

Alarm from IR sensor received. Image quantity is 5

Turn On: #11#1# (Default)

Response: *SMS notification upon Alarm - enabled*

Turn Off: #11#0#

Response: *SMS notification upon Alarm - disabled*

MMS Message

YOYOCam sends the Master an MMS including the number and size of image configured in the image settings (default: 5 images of 320 x 240 pixels).

The MMS includes text with a timestamp and the sensor which triggered the alarm, for example:

YOYOCam – 203849 Infrared

In this example the timestamp is 20:38:49 (8:38pm and 49 seconds) and the trigger sensor is the infrared movement detector.

Turn On: #12#1# (Default)

Response: *MMS notification upon Alarm - enabled*

Turn Off: #12#0#

Response: *MMS notification upon Alarm – disabled*

See *Image settings* for more information about the image format.

Email Message

YOYOCam sends an Email to the configured Email address including as attachments the number and size of images configured in the image settings (default: 5 images of 320 x 240 pixels).

Turn On: #110#1#

Response: *E-mail notification upon Alarm - enabled*

Turn Off: #110#0# (Default)

Response: *E-mail notification upon Alarm - disabled*

Note: if both Email and MMS are enabled, the MMS message is sent first, then the Email.

See *Image settings* for more information about the image format.

To add or change the Email address:

Master and Each user can add their Email address by sending this command from their mobile phone. To update, send the command again and the new Email address over-writes the old one.

Command: #108#EmailAddress#

Example: #108#night.warden@yoyomotion.com#

Response: *Current alarm notification Email address is: night.warden@yoyomotion.com*


To delete all E-mail addresses:

Command: #109#

Response: *E-mail address - deleted*

NOTE: Master user only.

Voice Call

YOYOCam calls the Master and each added User number in turn until someone answers, at which point that person can hear the audio from YOYOCam. YOYOCam tries each number up to three times in sequence before giving up. The call is allowed to ring for approximately 40 seconds before YOYOCam hangs up and rings the next number in the sequence. The LED indicator displays  (ongoing voice call).

Turn On: #13#1#

Response: *Call MASTER upon Alarm - enabled*

Turn Off: #13#0# (Default)

Response: *Call MASTER upon Alarm - disabled*

WARNING: If Master or any User number is a landline, YOYOCam could block the landline and prevent it from hanging up the call to dial other calls. Please read the description and perform the test as described for emergency numbers.

Precedence

Where multiple alarm options are enabled, the precedence is SMS first, MMS, Email, Voice Call (last)

To check Alarm settings

Command: #07#

Response: An MMS containing the status of these settings

Image settings

Image settings allow you to set up the built in camera and optimise picture quality.

Image Size

This setting defines the size of images taken by the built-in camera.

Command: #32#Size#

Example: #32#3#

Response: *Image size has been reset to 3*

You can chose from three image sizes. Default is Size 2:

Size	Width x Height (Pixels)	Image Quantity Default/Max	Image size Transmit time	Application
1	160 x 128	5 / 8	4 kBytes 25 sec	View images on small-screen mobile phone (not recommended)
2	320 x 240 (QVGA)	5 / 8	9 kBytes 50 sec	View images on mobile phone (Default)
3	640 x 480 (VGA)	2 / 2	33 kBytes 75 sec	View images on smartphone or computer (best resolution)

Notes

1. If you select size 3, image quantity is automatically changed to 2.
2. Image size and Transmit time are approximate.
3. MMS Transmit time is calculated as approximately 1.11 x Image Size x Image Quantity, assuming default Quantity.
4. Additional time is taken for the MMS to be transmitted through the mobile network and downloaded to the destination mobile phone.
5. This setting sets the size of image that YOYOcam sends in response to the #03# Capture Image(s) command.

Image Quantity

This setting defines how many images are included in the MMS message that YOYOcam sends upon alarm. YOYOcam defaults to 5 images at size 2 (320 x 240 pixels). The images are taken at the interval selected via the Image Interval command. Default interval is 0.5 seconds.

Command: #33#Quantity#

Example: #33#2#

Response: Number of Alarm images has been set to 2

The Quantity of images you may include in the MMS depends upon the selected Image Size:

Size	Minimum Quantity	Default Quantity	Maximum Quantity
1	2	5	8
2	2	5	8
3	2	2	2

Image Interval

This is the time delay between camera snapshots sent in an MMS. The default is 0.5 seconds.

Command: #103#ImageInterval#

Example: #103#10#

Response: *Image capture interval has been set to 10*

Image Interval may take values 3 to 10:

ImageInterval	Value in seconds	Value in Milliseconds
3	0.3	300
4	0.4	400
5	0.5	500
6	0.6	600
7	0.7	700
8	0.8	800
9	0.9	900
10	1.0	1000

Image Brightness

YOYOCam supports five brightness levels to adjust the camera to the ambient light level. Brightness level 1 is darkest and 5 is lightest. Default is 4.

Command: #34#BrightnessLevel#

Example: #34#3#

Response: *Brightness has been set to 3*

Note: Check your image brightness setting in each different condition (e.g. daylight, night) to make sure that the image is captured ok.

Image Contrast

YOYOCam supports five contrast levels to adjust the camera to the ambient conditions. Contrast level 1 is softest and 5 is most contrasty. Default is 4.

Command: #38#ContrastLevel#

Example: #38#3#

Response: Image contrast has been set to 3

Note: Check your image contrast setting in each different condition (e.g. daylight, night) to make sure that the image is captured ok.

Wireless Sensors

You can add up to 15 external wireless sensors which operate on the 433MHz standard. When YOYOCam is armed and a sensor is triggered, YOYOCam will emit a warning bleep and raise an alarm by SMS only or SMS followed by MMS, according to the way the sensor is configured.

Adding Wireless Sensors

To add a Wireless Sensor

1. Make sure the wireless sensor is powered on.
2. Send the command to add the sensor to YOYOCam

Command: #05#SensorDescription# (SMS notification upon alarm)

Command: #05#*SensorDescription# (SMS and MMS notification upon alarm)

Example: #05#*FrontDoor#

Note: *SensorDescription* is a textual name (up to 15 numbers and letters) that you choose to identify the sensor. If no name is supplied, YOYOCam names the sensors 1, 2, 3...

3. YOYOCam emits a bleep tone and the indicator flashes alternate red and green.
4. YOYOCam sends a notification SMS: *YOYOCam is ready to connect a sensor. Please activate the sensor now.*
5. Activate the sensor. For example, open the door if you are adding a door sensor.
Note: You have approximately 60 seconds to activate the sensor before YOYOCam cancels the add operation and reverts to normal state.
6. When YOYOCam receives the sensor activation signal, it will emit a bleep and sent a notification message by SMS: *SensorDescription has been successfully loaded*
7. To exit sensor addition mode, press the SET key or wait approximately 60 seconds for the mode to time out.

Error Responses

Sensor list is full. Please delete old sensor first.	YOYOCam already has 15 sensors added. Delete one first to create a space to add the new one.
YOYOCam beeps repeatedly	Sensor is already added.
Indicator light flashes red/green for approximately 60 seconds	Sensor has not been detected Check that you correctly activated the sensor

Checking wireless sensors

To check which wireless sensors are present:

Command: #07#

Response: MMS message including sensor list

Deleting Wireless Sensors

To delete a wireless sensor:

Command: #112#*SensorDescription*#

Example: #112#*FrontDoor*#

Response: *Sensor deleted successfully FrontDoor*

To delete several wireless sensors in one command:

Command: #112#*SensorDescription 1*#*SensorDescription 2*#*SensorDescription 3*# ...

Example: #112#*FrontDoor*#*BackDoor*#*SmokeAlarm*#

Response: *Sensor deleted successfully FrontDoor BackDoor SmokeAlarm*

To Delete all sensors:

Command: #112#

Response: *Sensor deleted successfully*

Advanced Settings

Status Indicator on/off

You can disable the status indicator if you want YOYOCam to have no visual status indication.

Turn On: #143#1# (Default)

Response: *Status LED - OFF*

Turn Off: #143#0#

Response: *Status LED - ON*

SMS Notification when power supply changes

YOYOCam can notify you when the power supply switches between external power adaptor and internal battery:

To switch SMS power notification on and off

Turn On: #144#1# (Default)

Response: *SMS notification upon power source change - enabled*

Turn Off: #144#0#

Response: *SMS notification upon power source change - disabled*

Notifications when enabled:

External power applied: *External power – resumed*

External power removed: *External power lost. Running on battery.*

Auto-Disarm YOYOCam

In some circumstances YOYOCam may be repeatedly triggered, for example by an employee at work who does not know how to disarm YOYOCam. You can configure YOYOCam to stop sending alarm messages after a given number of times by auto-disarming.

To set number of alarms before auto-disarm:

Command: #139#Times#

Example: #139#3#

Response: *Disarm the YOYOCam after 3 alarms*

Note: Times must be at least 1.

Note: After the given number of alarms, YOYOCam auto-disarms and sends an SMS:
YOYOCam has auto-disarmed

Note: The counter is reset each time YOYOCam is manually disarmed or armed.

To enable or disable auto-disarm:

Turn On: #138#1#

Response: *Disarm the YOYOCam after several alarms - enabled*

Turn Off: #138#0# (Default)

Response: *Disarm the YOYOCam after several alarms - disabled*

Language

English: #127#1#

Response: *Language set to English*

Turn Off: #127#0# (Default)

Response: *Svenska - installt*

Check Settings & Status

View Current Settings

To view current settings:

Command: #07#

Example Response:

Disarmed

SMS upon alarm - disabled

MMS upon alarm - enabled

Motion detection - disabled

Infrared lights - on

Notification by e-mail upon motion detection alarm - disabled

Voice call to preset number upon emergency alarm - enabled

Voice call to preset number upon alarm - enabled

Alarm image quantity: 5

Image size: 320*240

Image direction: 0

Image contrast: 4

Image interval: 5

Image brightness: 4

Image compression: 1

Sensitivity of motion detection: 4

Periodic sending of images - disabled

Day: Monday-Friday

Time:

0000-0800

Image capture interval:60

1700-2358

Image capture interval:60

Periodic arming and disarming - enabled

Parameters are:

Day: daily

Time:

0800-1700

Warning signal - enabled

Infrared sensor - enabled

MASTER phone number: +46701111111

USER phone number:

+46702222222

+46703333333

Sensor:

Emergency phone number:

+46701111111

+46705555555

Get help with commands

You can get a reminder of YOYOcam's commands by sending #09#.

To get a command list:

Command: #09#

Response:

#00# Set as Master

#01# Arm YOYOcam

#02# Disarm YOYOcam

#03#Password#Quantity# Request images

#04#OldPassword#NewPassword# Change 4-digit password

#05#SensorDescription# Load sensor

#06#number# Add USER phone number

#07# Report Status

#08#Password# Reset to default settings

#22#0# Disable motion detection

#22#1# Enable motion detection

Mobile Network settings

YOYOcam uses MMS (Multimedia Messaging Service) to send images and Email messages.

YOYOcam automatically configures the necessary MMS settings for the major Scandinavian networks. If your SIM is issued by some 'Mobile Virtual Network Operators' (MVNO) then you may need to enter the correct settings.

Checking MMS Configuration

To check presently-configured MMS parameters:

Command: #55#

Example: MMSC: http://mmsc.t-mobile.co.uk:8002

IP: 149.254.201.135

WAP Port: 8080
 HTTP Port: 8002
 APN: general.t-mobile.uk
 APN User: user
 APN Password: tm

To check if MMS is configured and working

Command: #03#

Response: Request Received. YOYOcam images are being sent by MMS

YOYOcam's status indicator flashes  while the MMS is sent.

- Images are received (MMS is configured)
- *The network is busy. No image has been sent.* (MMS not configured or wrongly configured)

Quick Settings for Scandinavian MVNOs

YOYOcam has quick settings for the major Scandinavian MVNOs – simply send the MVNO name to YOYOcam.

To enter MMS settings for Scandinavian MVNOs:

Command: #145#Name#

Example: #145#ACN#

Response: ACN MMS settings configured

Error Response: YOYOcam returns a list of valid names.

Network Operator	Command to send	Response
ACN	#145#ACN#	ACN MMS settings configured
Cell Mobile SE	#145#CELLMOBILE#	CELLMOBILE MMS settings configured
Chess NO	#145#CHESSNO#	CHESSNO MMS settings configured
Glocalnet	#145#GLOCALNET#	GLOCALNET MMS settings configured
Halebop	#145#HALEBOP#	HALEBOP MMS settings configured
Parlino	#145#PARLINO#	PARLINO MMS settings configured
Superstar	#145#SUPERSTAR#	SUPERSTAR MMS settings configured
TDC Song NO	#145#TDCNO#	TDCNO MMS settings configured
TDC Song SE	#145#TDCSE#	TDCSE MMS settings configured
Telmore DK	#145#TELMORE#	TELMORE MMS settings configured
Universal	#145#UNIVERSAL#	UNIVERSAL MMS settings configured
Ventelo NO	#145#VENTELONO#	VENTELNO MMS settings configured
Ventelo SE	#145#VENTELOSE#	VENTELOSE MMS settings configured

Note: Some MVNOs such as TELE2 can be detected from the SIM card and do not require a quick setting because they are automatically configured.

To view the list of settings for Scandinavian MVNOs

Command: #145#

Response: YOYOCam returns a list of valid names.

Manual MMS Configuration

To configure MMS manually, you need to find out the settings for your mobile operator. They are often published in the support or help section of the operator's website. YOYOCam requires two settings:

- MMS Center, also known as MMS Homepage, Message Server
- MMS Internet Access Point and WAP Gateway

Both must be configured in order for MMS to work. YOYOCam automatically selects between WAP or HTTP configuration.

To configure MMS Center (MMSC) setting manually:

Command: #124#MMSCenter#

Example: #124#http://mmsc.t-mobile.co.uk:8002#

Response: MMS configuration successful. http://mmsc.t-mobile.co.uk:8002

To configure MMS Internet Access Point Settings manually:

Command: #125#GatewayIP#WAPGatewayPort#HTTPGatewayPort#APN#APNusername#
APNpassword#

Example: #125#149.254.201.135#8080#8002#general.t-mobile.uk#user#tm#

Response: Set MMS parameter successfully: 149.254.201.135#8080#8002#general.t-mobile.uk#user#tm

Reset MMS Configuration

To clear out any manual settings and return to automatic MMS configuration:

Command: #54#

Response: MMS Settings removed. New MMS parameter is auto-changed to:

MMSC: http://mmsc.t-mobile.co.uk:8002

IP: 149.254.201.135

WAP Port: 9201

HTTP Port: 8080

APN: general.t-mobile.uk

APN User: user




APN Password: one2one

Using the Remote Control

Pairing your YOYOCam with a Remote Control

Before use, each Remote must be paired with your YOYOCam. Up to five remotes can be paired; two are supplied.

To pair a Remote Control with YOYOCam:

1. Press the SET button. YOYOCam bleeps and LED flashes orange  indicating pairing mode.
2. Press any button on the remote control. YOYOCam bleeps and LED turns green  for 2 seconds then returns to orange flashing  ready to pair another remote control.
3. Press SET to exit pairing mode. In any case pairing mode times out after 15 seconds.

Note: If the battery in the remote control is low, YOYOCam emits three bleeps and exits learning mode. Replace the battery in the remote control and try again.

To un-pair all Remote Controls:

Command: #111#


Response: *All remote controls have been deleted*

Arming and Disarming YOYOCam


Press  to arm YOYOCam. The Status indicator shows  when armed.

Press  to disarm YOYOCam. The Status indicator shows  when disarmed.

Emergency Button

When the Emergency button  is pressed, YOYOCam acknowledges with a bleep. By default, YOYOCam calls the Master number. When the Master answers, the audio from YOYOCam can be heard. If the Master does not answer, YOYOCam will call twice more (total three attempts) before giving up.

YOYOCam can be configured to call additional numbers, called Emergency Numbers. Alternatively, YOYOCam can be set to send MMS instead of making voice calls.

Note: YOYOCam responds to the Emergency button  in both Armed and Unarmed states. If YOYOCam is busy, for example sending images, the ongoing operation is cancelled in order to action

the Emergency alarm.

Emergency Numbers

The Master can add up to 9 Emergency Numbers.

To add an Emergency number.

Use this command to add numbers one by one. Use international (recommended) or national format.

Command: #106#EmergencyNumber#

Example: #106#+46703333333#

Response: +46703333333 Emergency phone number added

To add several Emergency numbers in a single command (maximum 9):

Command: #106#EmergencyNumber1#EmergencyNumber2#EmergencyNumber3# ...

Example: #106#+46704444444#+46705555555#+46706666666#

Response: +46704444444
+46705555555
+46706666666
Emergency phone number added

To delete an Emergency number:

Command: #107#EmergencyNumber#

Example: #107#+46703333333#

Response: +46703333333 Emergency phone number deleted

To delete several Emergency numbers in a single command:

Command: #107#EmergencyNumber1#EmergencyNumber2#EmergencyNumber3#

Example: #107#+46704444444#+46705555555#+46706666666#

Response: +46704444444
+46705555555
+46706666666
Emergency phone number - deleted

To delete all Emergency numbers:

Command: #107#

Response: Emergency phone number - deleted

To find out which Emergency numbers are set:



Command: #07#

Response: MMS message including YOYOcam status and Emergency number(s)

Error Responses

Emergency phone number already exists	EmergencyNumber has already been set up. Note that YOYOcam treats the national and international format of the same number as different and will not issue this error if both formats are sent.
Emergency phone number list is full. Please delete old number(s)	YOYOcam already has 9 Emergency numbers set up. Use #07# to check and then delete unwanted number(s) to make space for the new number(s).

Voice Dialling Mode (Default option)

When the Emergency button  is pressed, YOYOcam acknowledges with a bleep. By default, YOYOcam calls the Master and each added Emergency number in turn until someone answers, at which point that person can hear the audio from YOYOcam. YOYOcam tries each number up to three times in sequence before giving up. The call is allowed to ring for approximately 40 seconds before YOYOcam hangs up and rings the next number in the sequence. The LED indicator displays  (ongoing voice call).

For example, YOYOcam is configured with Master, EmergencyNumber1 and EmergencyNumber2.

The Emergency button is pressed:

Step	YOYOcam action	What happens next	User reaction
1	YOYOcam dials Master	Call rings 40 seconds at Master's phone	No answer
2	YOYOcam dials EmergencyNumber1	Call rings for 40 seconds at EmergencyNumber1	No answer
3	YOYOcam dials EmergencyNumber2	Call rings for 40 seconds at EmergencyNumber2	No answer
4	YOYOcam dials Master	Call rings 40 seconds at Master's phone	No answer
5	YOYOcam dials EmergencyNumber1	Call rings at EmergencyNumber1	Call is answered inside 40 seconds User hears audio from YOYOcam

If YOYOcam is set to call a landline, check that hanging up the landline clears the call. Some telephone networks do not clear the call when the called end hangs up, making it impossible to dial a new call. You must make a test call to ensure that the Emergency Number is not blocked by the call from YOYOcam:

1. Add the landline as an Emergency number.
2. Press the Emergency button.
3. Let the call ring at the Master phone but do not answer (or allow voicemail to take the call).
4. When the call rings at the landline, answer and check that you can hear audio from

YOYOCam.

5. Hang up the call at the landline.
6. Wait 10 seconds.
7. Pick up the Landline:
 - If you hear dialling tone and can make another call, your line is not blocked.
 - If you still hear YOYOCam, the incoming call is blocking your landline. This is a property of your telephone network.
8. Hang up the call again.
9. If your line was blocked, now wait 3 or 5 minutes to see if the landline network disconnects the call.
10. Pick up the Landline:
 - If you hear dialling tone and can make another call, your line is now unblocked. You should only dial this landline if the user has an alternative means of dialling a call, for example, using a separate mobile phone.
 - If you still hear YOYOCam, the incoming call is still blocking your landline. You must not program YOYOCam to dial this line.

Mobile phone networks normally allow the called party to end the call and are therefore emergency calls to mobile phones should be able to end the call and immediately make a new call.


Note: YOYOCam cannot send MMS images while a voice call is in progress.

To set Voice Dialling mode:

Command: #39#0#

Response: Voice call to preset number upon emergency alarm - enabled

SMS/MMS Mode

When the Emergency button  is pressed YOYOCam acknowledges with a bleep, and sends an SMS alert followed by an MMS with an image to the Master and each added Emergency number.

SMS Alert: Alarm from remote control received

To set SMS/MMS mode:

Command: #39#1#

Response: SMS and MMS notification upon emergency alarm – enabled

Remote Control Battery

The remote control uses one CR2032 type 3 Volt battery. When the battery runs low, YOYOCam beeps and a warning SMS is sent to the Master.

NOTE: If you need to replace this battery, ensure that the replacement is a CR2032 manufactured by Panasonic.

Guest Commands

This page describes the commands that are available to Guests. The Master does not need to add Guest users to YOYOcam. Instead the Master gives the Guest the Password, and the Password has to be included in the commands that the Guest sends to YOYOcam.

Request one image

To request a single image to be sent to your mobile by MMS:

Command: `#03#Password#`

Response: MMS message containing the image

Note: The format of the image is controlled by the Master.

Request a sequence of images

You can request YOYOcam to take up to 8 images in a sequence. The interval between the images is determined by the Image Interval setting (default 0.5 seconds). The images are sent to the requesting Master or User by MMS.

To request a sequence of images:

Command: `#03#Password#Quantity#`

Response: MMS message containing the images

Note: The format of the image is controlled by the Master.

Note: Quantity can be 1-8 for image sizes 160 x 120 and 320 x 240. Quantity must be 1-2 for image size 640 x 480

Request a sequence of images (send to any required mobile phone or E-mail address)

Master and users can request images to be sent to any mobile phone by providing the mobile phone number, or to any E-mail address. You can request YOYOcam to take up to 8 images in a sequence. The interval between the images is determined by the Image Interval setting (default 0.5 seconds). The images are sent by MMS if a mobile number is provided, or E-mail (using the mobile operator's MMS service to send to the E-mail address) if an E-mail address is provided.

To request a sequence of images to another mobile number or E-Mail:

Command: `#30#Password#NumberOrEmail#Quantity#`

Example1: `#30#1234#+4670222222#2#`

Response1: MMS message containing the images is sent to +4670222222

Example2: `#30#Password#user@emailaddress.com#`

Response2: E-mail containing the images is sent to user@emailaddress.com



Note: The format of the image is controlled by the Master.

Note: Quantity can be 1-8 for image sizes 160 x 120 and 320 x 240. Quantity must be 1-2 for image size 640 x 480.

Factory Reset

If the Master phone is lost or you want to set up YOYOCam again from the beginning, you can use Factory Reset to set all settings and parameters back to the factory default. Following Factory Reset you will need to re-pair the remote controls and any remote sensors, re-enter any mobile network (MMS) settings and reconfigure all users etc.

To perform Factory Reset (Reset Key method):

1. Switch Off YOYOCam and wait at least 20 seconds.
2. Press and hold the Reset key.
3. Switch on YOYOCAM while the Reset key is still pressed.
4. After approx. 10 seconds, YOYOCam bleeps and the indicator LED goes green  and then flashes red .
5. You may now release the Reset key.

To perform Factory Reset by SMS (Master only)

Command: #08#Password#

Response: YOYOCam has been reset to default settings

Troubleshooting

Problem: YOYOcam cannot register a Master

Possible Causes: YOYOcare has already a registered Master

Possible Solution: Master Reset your YOYOcare and then register again

Problem: Master is not recognized

Possible Cause: The master number was presented to YOYOcam in national format when set up and now the number is being presented in International format, or vice versa. YOYOcam treats national and international format numbers as different.

Problem: Service Registration fails

Possible Causes: Temporary network problem

Possible Solution: Make sure your GSM subscription supports GPRS and that you have the right network specific parameters.

Problem: Cannot receive SMS from YOYOcam

Possible Causes: Subscription can be out of credit, or there is a temporary network problem.

Possible Solution: Make sure your GSM subscription has sufficient credit. Wait for the network to recover or contact your network service provider for assistance.

Problem: YOYOcam rejects my phone call

Possible Causes: The caller's phone-number is not recognised as the Master or a User.

Possible Solution: Check and make sure you are calling from the correct phone number and that your phone is sending the number (Calling Line Identification), and your phone number is added to YOYOcare. Master can check the user list by sending SMS command "UL".

Problem: Cannot receive MMS from YOYOcam

Possible Causes: The MMS service is not activated. The MMS profile has incorrect parameters. There is a temporary network problem.

Possible Solution: Test the SIM in a regular cell phone to verify the MMS service is activated and that correct MMS settings are used. Check the MMS settings in YOYOcare by sending the SMS command #55#. MMS messages take normally longer time to deliver compared to SMS messages.

Problem: SIM Card requires a PIN

Possible Solution: Insert the SIM in to another Mobile Phone and access the Settings to disable the SIM PIN.

Problem: Cannot dial in and listen

Possible Cause: The number was set up in national format and when the Master or User dials in, the mobile network presents the number in International format or vice versa. YOYOcam treats national and international format of the same number as two different numbers.

Possible Solution: Set up User number in national or international format and re-test. Set twice in both formats.

Problem: Remote Control does not operate

Possible Cause: Remote control has not been paired with YOYOCam

Possible Solution: Follow the procedure *Pairing your YOYOCam with a Remote Control*.

Possible Cause: Remote control battery is low..

Possible Solution: Replace the battery. The correct type is a CR2032 manufactured by Panasonic.

Possible Cause: You are too far away from YOYOCam.

Possible Solution: Move closer to YOYOCam. Note that steel doors and solid walls will reduce the operating distance.

Problem: Error response *ERR_IND 4_0*

YOYOCam responds: The network is busy. No image has been sent. ERR_IND 4_0.

Possible Solution: Check that MMS settings are correct.

Problem: Error response *Wrong parameters. Please check and try again.*

YOYOCam did not understand the parameters included with the SMS command. For example, in command #33#Quantity#, #33#1# will fail because Quantity must be between 2 and 8..

Command Summary

MASTER

There is one Master user who has complete control over YOYOCam. Master-only commands:

Text to send	What it does
#08#Password#	Factory Reset
#00#	(after factory reset) sender becomes Master
#14#NewMasterNumber#	Change from present Master number to NewMasterNumber
#04#OldPassword#NewPassword#	Change the Guest password (default is 1234) e.g. send #04#1234#6789# to change password to 6789
#06#UserNumber#	Add a User. e.g. send #06#0702222222# to add 0702222222 as a user.
#113#UserNumber#	Delete a User
#109#	Delete all Email addresses
#106#EmergencyNumber#	Add Emergency Number (called when emergency button pressed on remote)
#107#EmergencyNumber#	Delete Emergency Number
#107#	Delete all Emergency Numbers
#127#LanguageCode#	Set Language. 0=Swedish (default); 1 = English

MMS Settings

YOYOCam self-configures the MMS settings automatically for many Scandinavian mobile operators. Virtual operators provide SIM cards but use the infrastructure of another operator. YOYOCam is not always able to automatically configure the MMS Settings for these operators. Use the Quick-commands below if you use one of the operators listed.

NOTE: Email is sent using MMS, therefore no Email configuration is required however your network operator must support sending messages to Email addresses.

Virtual Operator	Quick-Command
ACN	#145#ACN#
Cell Mobile SE	#145#CELLMOBILE#
Chess NO	#145#CHESSNO#
Glocalnet	#145#GLOCALNET#
Halebop	#145#HALEBOP#
Parlino	#145#PARLINO#
Superstar	#145#SUPERSTAR#
TDC Song NO	#145#TDCNO#
TDC Song SE	#145#TDCSE#
Telmore DK	#145#TELMORE#
Universal	#145#UNIVERSAL#
Ventelo NO	#145#VENTELONO#
Ventelo SE	#145#VENTELOSE#

Manual MMS Setup

Text to send	What it does
#145#	Get this list or virtual operators with Quick-Command setup.
#124#MMScenter#	Set MMS Centre
#125#parameters#	Set MMS Access Point and parameters #125#GatewayIP#WAPGatewayPort#HTTPGatewayPort#APN#APNusername#APNpassword#
#55#	Check MMS parameters
#54#	Delete current MMS parameters; YOYOcam reverts to auto-configuration mode.

MASTER & USER

Up to 10 Users set up by the Master can access YOYOcam. Master and Users can send these commands. Master & Users can also call YOYOcam and listen in via the built-in microphone.

Most Common Commands

Text to send	What it does
#01#	Arm YOYOcam (if an event is detected, alarm is triggered)
#02#	Disarm YOYOcam (events will be ignored)
#03#	Take one image and send it to the requesting user
#03#Quantity#	Take a number (Quantity 1-8) of images and send to requestor
#07#	Check the settings and status
#09# or #09#1#	Get the command list (#09# for SMS, #09#1# for MMS response)
#32#Size#	Set image size: 1: 160x128; 2: 320x240 (default); 3: 640x480
#33#Quantity#	Set quantity of images to take when triggered: 1-8 (default 3; note 1)
#118#0# or #118#1#	Disable (0) infrared body detection; enable (1) (default)
#22#0# or #22#1#	Disable (0) camera based motion detection (default); enable (1)
#39#0#	Call mode – When Emergency button pressed, numbers are dialed
#39#1#	SMS/MMS mode – when Emergency button is pressed, YOYOcam sends SMS and MMS.
#143#0# or #143#1#	Disable (0) indicator LED; enable (1) (default)

NOTE: *Quantity* (image quantity) is in range 1-8 for image sizes 160 x 120 and 320 x 240. *Quantity* must be 1-2 for image size 640 x 480.

Arming & Disarming

Text to send	What it does
#01#	Arm YOYOcam (if an event is detected, alarm is triggered)
#02#	Disarm YOYOcam (events will be ignored)
#137#0# or #137#1#	Receive an SMS when remote control arms/disarms YOYOcam. 0: Off (default); 1: On
#129#parameters#	Set arm and disarm state by a schedule based on day and time #129#Day#ArmTime1#DisarmTime1#ArmTime2#DisarmTime2#ArmTime3#DisarmTime3#
#128#0# or #128#1#	Disable (0) (default) above scheduled arm/disarm state; enable (1).
#139#Times#	Auto-disarm after <i>Times</i> the alarm has been triggered
#138#0# or #138#1#	Disable (0) (default) auto-disarm; enable (1).

Detecting & Communicating Alarms

Text to send	What it does
#118#0# or #118#1#	Disable (0) infrared body sensor; enable (1) (default)
#22#0# or #22#1#	Disable (0) camera motion detection; enable (1) (default)
#130#0# or #130#1#	Disable (0) (default) alarm warning bleep; enable (1)
#11#0# or #11#1#	Disable (0) alarm SMS; enable (1) (default)
#12#0# or #12#1#	Disable (0) alarm MMS; enable (1) (default)
#110#0# or #110#1#	Disable (0) alarm Email; enable (1) (default)
#13#0# or #13#1#	Disable (0) (default) alarm voice call; enable (1)
#36#Sensitivity#	Set camera motion sensitivity from 1 (least sensitive) to 5 (most sensitive). Default 4.

Images

Text to send	What it does
#03#	Take one image and send it to the requesting user
#03#Quantity#	Take a number (Quantity 1-8) of images and send to requestor by MMS
#03#Quantity#1#	Take a number (Quantity 1-8) of images and send to requestor by E-Mail. (User must first have sent #108#EmailAddress# to tell YOYOcam their E-Mail address.
#30#NumberOrEmail#Quantity#	Request a sequence of images to another mobile number or E-Mail.
#108#EmailAddress#	Add/Update Email address (Master / User sends from their own mobile phone)
#116#parameters#	Request YOYOcam to automatically send images according to a schedule. #116#Day#StartTime1#EndTime1#IntervalTime1 #StartTime2#EndTime2#IntervalTime2 #StartTime3#EndTime3#IntervalTime3#
#115#0# or #115#1#	Disable (0) (default) above scheduled image send; enable (1).
#32#Size#	Set image size: 1: 160x128; 2: 320x240 (default); 3: 640x480
#33#Quantity#	Set quantity of images to take when triggered: 1-8 (default 3; note 1)
#103#ImageInterval#	Interval between images. Range 3 (0.3 sec) to 10 (1.0 sec); default 5 (0.5 sec)
#34#BrightnessLevel#	Camera brightness. 1 is darkest and 5 is lightest. Default is 4.
#38#ContrastLevel#	Camera image contrast 1 is softest and 5 is most contrasty. Default is 4

NOTE: *Quantity* (image quantity) is in range 1-8 for image sizes 160 x 120 and 320 x 240. *Quantity* must be 1-2 for image size 640 x 480.

Wireless Sensors & Remote Control

Text to send	What it does
#05#SensorDescription#	Add wireless sensor
#112#SensorDescription#	Delete wireless sensor
#111#	Un-pair all remote controls
#39#0#	Call mode – When Emergency button pressed, numbers are dialed
#39#1#	SMS/MMS mode – when Emergency button is pressed, YOYOcam sends SMS and MMS.

Advanced Settings & Check Settings

#143#0# or #143#1#	Disable (0) indicator LED; enable (1) (default)
#144#0# or #144#1#	SMS notification of power status: 0: off; 1: on (default)
#07#	Check the settings and status
#09# or #09#1#	Get the command list (#09# for SMS, #09#1# for MMS response)

GUEST

Guest users are people who do not normally need access, but might be asked to check the protected area because they are nearby, for example. Guest users do not need to be pre-defined to YOYOcam, but do require the PIN. Guest commands:

Text to send	What it does
<i>#03#Password#</i>	Take one image and send it to the requesting guest
<i>#03#Password#Quantity#</i>	Take a number (Quantity 1-8) of images (note 1)
<i>#30#Password#To#Quantity#</i>	Take a number (Quantity 1-8) of images and send to a phone or E-mail address (To is the mobile number or E-Mail address; note 1)

Note 1: Maximum Quantity is limited to 2 when image size is set to 3.

Specifications

GSM Frequency Bands	900 /1800 MHz
Working temperature	-10 to 45 centigrade
Working Humidity	10% to 90%
Alarm detection	Motion detection and IR body detection
Motion detection distance	Up to 6m (Camera); 9m (IR)
Alarm modes	SMS, MMS, Email, Voice call
Camera resolution	300.000 pixels (640 x 480)
Camera maximum distance	8m
Camera capture angle	68 degrees
Picture file format	JPEG
Built-in microphone distance	up to 6 m
Night vision	built-in infrared light
Remote control	2 units included (433 MHz)
External wireless 433 MHz sensors	Up to 15 sensors; ASK protocol
Receiving distance sensors	Up to 15m
Power adapter	Input: 110V~240V Output: DC 5.5V/2A
Built-in battery	Lithium ion 800mAh
Battery back-up	Up to 12 hours
Low battery alarm	by SMS
Size	75x125x43 mm
Weight	186 grams

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