Commands used in terminal

Update and upgrade the raspberry pi firmware

Sudo apt-get update

Sudo apt-get upgrade

#Ensure raspberry pi cam is switched on within raspi config.

Sudo raspi-config (Camera – Enable)

#update raspberry pi cam firmware (optional)

sudo apt-get install rpi-update

sudo rpi-update

sudo reboot

#Download the Motion-mmal.tar.gz

Sudo apt-get install motion-mmal

#Download jpeg library (libjpeg62)

Sudo apt-get install libjpeg62

#Access the (motion-mmalcam.conf) Motion configuration file

Sudo nano /etc/motion/motion-mmalcam.conf

→below are the default mmalcam.config file settings.

##

Daemon

##

Start in daemon (background) mode and release terminal (default: off)

daemon off

File to store the process ID, also called pid file. (default: not defined)

process_id_file /var/run/motion/motion.pid

##

Basic Setup Mode

##

Start in Setup-Mode, daemon disabled. (default: off)

setup_mode off

Use a file to save logs messages, if not defined stderr and syslog is used. (default: not defined)

logfile /home/pi/motion.log

Level of log messages [1..9] (EMR, ALR, CRT, ERR, WRN, NTC, INF, DBG, ALL). (default: 6 / NTC)

log_level 5

Filter to log messages by type (COR, STR, ENC, NET, DBL, EVT, TRK, VID, ALL). (default: ALL)

log_type all

##

Capture device options

##

Videodevice to be used for capturing (default /dev/video0)

for FreeBSD default is /dev/bktr0

#videodevice /dev/video0

v4l2_palette allows you to choose a palette to be used by motion

to capture from those supported by your videodevice. (default: 17)

E.g. if your videodevice supports both V4L2_PIX_FMT_SBGGR8 and

V4L2_PIX_FMT_MJPEG then motion will by default use V4L2_PIX_FMT_MJPEG.

Setting v4l2_palette to 2 forces motion to use V4L2_PIX_FMT_SBGGR8

instead.

#

Values :

V4L2_PIX_FMT_SN9C10X : 0 'S910'

V4L2_PIX_FMT_SBGGR16 : 1 'BYR2'

V4L2_PIX_FMT_SBGGR8 : 2 'BA81'

V4L2_PIX_FMT_SPCA561 : 3 'S561'

V4L2_PIX_FMT_SGBRG8 : 4 'GBRG'

V4L2_PIX_FMT_SGRBG8 : 5 'GRBG'

V4L2_PIX_FMT_PAC207 : 6 'P207'

V4L2_PIX_FMT_PJPG   : 7 'PJPG'

V4L2_PIX_FMT_MJPEG   : 8 'MJPEG'

V4L2_PIX_FMT_JPEG   : 9 'JPEG'

V4L2_PIX_FMT_RGB24   : 10 'RGB3'

V4L2_PIX_FMT_SPCA501 : 11 'S501'

V4L2_PIX_FMT_SPCA505 : 12 'S505'

V4L2_PIX_FMT_SPCA508 : 13 'S508'

V4L2_PIX_FMT_UYVY   : 14 'UYVY'

V4L2_PIX_FMT_YUYV   : 15 'YUYV'

V4L2_PIX_FMT_YUV422P : 16 '422P'

V4L2_PIX_FMT_YUV420 : 17 'YU12'

#

v4l2_palette 17

Tuner device to be used for capturing using tuner as source (default /dev/tuner0)

This is ONLY used for FreeBSD. Leave it commented out for Linux

; tunerdevice /dev/tuner0

The video input to be used (default: -1)

Should normally be set to 0 or 1 for video/TV cards, and -1 for USB cameras

input -1

The video norm to use (only for video capture and TV tuner cards)

Values: 0 (PAL), 1 (NTSC), 2 (SECAM), 3 (PAL NC no colour). Default: 0 (PAL)

norm 0

The frequency to set the tuner to (kHz) (only for TV tuner cards) (default: 0)

frequency 0

Rotate image this number of degrees. The rotation affects all saved images as

well as movies. Valid values: 0 (default = no rotation), 90, 180 and 270.

rotate 0

Image width (pixels). Valid range: Camera dependent, default: 352

width 1024

Image height (pixels). Valid range: Camera dependent, default: 288

height 576

Maximum number of frames to be captured per second.

Valid range: 2-100. Default: 100 (almost no limit).

framerate 2

Minimum time in seconds between capturing picture frames from the camera.

Default: 0 = disabled - the capture rate is given by the camera framerate.

This option is used when you want to capture images at a rate lower than 2 per second.

minimum_frame_time 0

URL to use if you are using a network camera, size will be autodetected (incl http:// ftp:// mjpg:// or file:///)

Must be a URL that returns single jpeg pictures or a raw mjpeg stream. Default: Not defined

;netcam_url http://127.0.0.1/cgi-bin/raspicam.sh

Username and password for network camera (only if required). Default: not defined

Syntax is user:password

; netcam_userpass value

The setting for keep-alive of network socket should improve performance on compatible net cameras.

off: The historical implementation using HTTP/1.0, closing the socket after each http request.

force: Use HTTP/1.0 requests with keep alive header to reuse the same connection.

on: Use HTTP/1.1 requests that support keep alive as default.

Default: off

netcam_keepalive off

URL to use for a netcam proxy server, if required, e.g. "http://myproxy".

If a port number other than 80 is needed, use "http://myproxy:1234".

Default: not defined

; netcam_proxy value

Set less strict jpeg checks for network cameras with a poor/buggy firmware.

Default: off

netcam_tolerant_check off

Let motion regulate the brightness of a video device (default: off).

The auto_brightness feature uses the brightness option as its target value.

If brightness is zero auto_brightness will adjust to average brightness value 128.

Only recommended for cameras without auto brightness

auto_brightness off

Set the initial brightness of a video device.

If auto_brightness is enabled, this value defines the average brightness level

which Motion will try and adjust to

```
# Valid range 0-255, default 0 = disabled
brightness 0

# Set the contrast of a video device.
# Valid range 0-255, default 0 = disabled
contrast 0

# Set the saturation of a video device.
# Valid range 0-255, default 0 = disabled
saturation 0

# Set the hue of a video device (NTSC feature).
# Valid range 0-255, default 0 = disabled
hue 0

############################################################
# File "camera" support - read raw YUV data from a file
############################################################
#filecam_path /home/pi/test-cap/motion-mmal.capture

############################################################
# OpenMax/MMAL camera support for Raspberry Pi
############################################################
mmalcam_name vc.ril.camera
#mmalcam_control_params
```

#mmalcam_raw_capture_file /home/pi/motion-mmal.capture

Switch this setting to "on" to use the still image mode of the Pi's camera

instead of video. This gives a wider field of view, but requires

a much slower frame-rate to achieve exposure stability

(e.g. 0.25 fps or slower). You can use the minimum_frame_time

parameter above to achieve this

mmalcam_use_still off

##

Round Robin (multiple inputs on same video device name)

##

Number of frames to capture in each roundrobin step (default: 1)

roundrobin_frames 1

Number of frames to skip before each roundrobin step (default: 1)

roundrobin_skip 1

Try to filter out noise generated by roundrobin (default: off)

switchfilter off

```
############################################################
# Motion Detection Settings:
############################################################

# Threshold for number of changed pixels in an image that
# triggers motion detection (default: 1500)
threshold 1500

# Automatically tune the threshold down if possible (default: off)
threshold_tune off

# Noise threshold for the motion detection (default: 32)
noise_level 32

# Automatically tune the noise threshold (default: on)
noise_tune on

# Despeckle motion image using (e)rode or (d)ilate or (l)abel (Default: not defined)
# Recommended value is EedDl. Any combination (and number of) of E, e, d, and D is valid.
# (l)abeling must only be used once and the 'l' must be the last letter.
# Comment out to disable
despeckle_filter EedDl

# Detect motion in predefined areas (1 - 9). Areas are numbered like that:  1 2 3
# A script (on_area_detected) is started immediately when motion is        4 5 6
```

detected in one of the given areas, but only once during an event. 7 8 9

One or more areas can be specified with this option. Take care: This option

does NOT restrict detection to these areas! (Default: not defined)

; area_detect value

PGM file to use as a sensitivity mask.

Full path name to. (Default: not defined)

; mask_file value

Dynamically create a mask file during operation (default: 0)

Adjust speed of mask changes from 0 (off) to 10 (fast)

smart_mask_speed 0

Ignore sudden massive light intensity changes given as a percentage of the picture

area that changed intensity. Valid range: 0 - 100 , default: 0 = disabled

lightswitch 0

Picture frames must contain motion at least the specified number of frames

in a row before they are detected as true motion. At the default of 1, all

motion is detected. Valid range: 1 to thousands, recommended 1-5

minimum_motion_frames 1

Specifies the number of pre-captured (buffered) pictures from before motion

was detected that will be output at motion detection.

Recommended range: 0 to 5 (default: 0)

```
# Do not use large values! Large values will cause Motion to skip video frames and
# cause unsmooth movies. To smooth movies use larger values of post_capture instead.
pre_capture 0

# Number of frames to capture after motion is no longer detected (default: 0)
post_capture 0

# Event Gap is the seconds of no motion detection that triggers the end of an event.
# An event is defined as a series of motion images taken within a short timeframe.
# Recommended value is 60 seconds (Default). The value -1 is allowed and disables
# events causing all Motion to be written to one single movie file and no pre_capture.
# If set to 0, motion is running in gapless mode. Movies don't have gaps anymore. An
# event ends right after no more motion is detected and post_capture is over.
event_gap 60

# Maximum length in seconds of a movie
# When value is exceeded a new movie file is created. (Default: 0 = infinite)
max_movie_time 0

# Always save images even if there was no motion (default: off)
emulate_motion off


############################################################
# Image File Output
```

```
############################################################

# Output 'normal' pictures when motion is detected (default: on)
# Valid values: on, off, first, best, center
# When set to 'first', only the first picture of an event is saved.
# Picture with most motion of an event is saved when set to 'best'.
# Picture with motion nearest center of picture is saved when set to 'center'.
# Can be used as preview shot for the corresponding movie.
output_pictures on

# Output pictures with only the pixels moving object (ghost images) (default: off)
output_debug_pictures off

# The quality (in percent) to be used by the jpeg compression (default: 75)
quality 75

# Type of output images
# Valid values: jpeg, ppm (default: jpeg)
picture_type jpeg

############################################################
# FFMPEG related options
# Film (movies) file output, and deinterlacing of the video input
# The options movie_filename and timelapse_filename are also used
# by the ffmpeg feature
```

```
############################################################

# Use ffmpeg to encode movies in realtime (default: off)
ffmpeg_output_movies on

# Use ffmpeg to make movies with only the pixels moving
# object (ghost images) (default: off)
ffmpeg_output_debug_movies off

# Use ffmpeg to encode a timelapse movie
# Default value 0 = off - else save frame every Nth second
ffmpeg_timelapse 0

# The file rollover mode of the timelapse video
# Valid values: hourly, daily (default), weekly-sunday, weekly-monday, monthly, manual
ffmpeg_timelapse_mode daily

# Bitrate to be used by the ffmpeg encoder (default: 400000)
# This option is ignored if ffmpeg_variable_bitrate is not 0 (disabled)
ffmpeg_bps 500000

# Enables and defines variable bitrate for the ffmpeg encoder.
# ffmpeg_bps is ignored if variable bitrate is enabled.
# Valid values: 0 (default) = fixed bitrate defined by ffmpeg_bps,
# or the range 2 - 31 where 2 means best quality and 31 is worst.
```

ffmpeg_variable_bitrate 0

Codec to used by ffmpeg for the video compression.

Timelapse mpegs are always made in mpeg1 format independent from this option.

Supported formats are: mpeg1 (ffmpeg-0.4.8 only), mpeg4 (default), and msmpeg4.

mpeg1 - gives you files with extension .mpg

mpeg4 or msmpeg4 - gives you files with extension .avi

msmpeg4 is recommended for use with Windows Media Player because

it requires no installation of codec on the Windows client.

swf - gives you a flash film with extension .swf

flv - gives you a flash video with extension .flv

ffv1 - FF video codec 1 for Lossless Encoding (experimental)

mov - QuickTime (testing)

ogg - Ogg/Theora (testing)

ffmpeg_video_codec mpeg4

Use ffmpeg to deinterlace video. Necessary if you use an analog camera

and see horizontal combing on moving objects in video or pictures.

(default: off)

ffmpeg_deinterlace off

##

SDL Window

##

Number of motion thread to show in SDL Window (default: 0 = disabled)

#sdl_threadnr 0

###

External pipe to video encoder

Replacement for FFMPEG builtin encoder for ffmpeg_output_movies only.

The options movie_filename and timelapse_filename are also used

by the ffmpeg feature

###

Bool to enable or disable extpipe (default: off)

use_extpipe off

External program (full path and opts) to pipe raw video to

Generally, use '-' for STDIN...

;extpipe mencoder -demuxer rawvideo -rawvideo w=320:h=240:i420 -ovc x264 -x264encopts bframes=4:frameref=1:subq=1:scenecut=-1:nob_adapt:threads=1:keyint=1000:8x8dct:vbv_bufsize=4000:crf=24:partitions=i8x8,i4x4:vbv_maxrate=800:no-chroma-me -vf denoise3d=16:12:48:4,pp=lb -of avi -o %f.avi - -fps %fps

###

Snapshots (Traditional Periodic Webcam File Output)

###

Make automated snapshot every N seconds (default: 0 = disabled)

```
snapshot_interval 0

############################################################
# Text Display
# %Y = year, %m = month, %d = date,
# %H = hour, %M = minute, %S = second, %T = HH:MM:SS,
# %v = event, %q = frame number, %t = thread (camera) number,
# %D = changed pixels, %N = noise level, \n = new line,
# %i and %J = width and height of motion area,
# %K and %L = X and Y coordinates of motion center
# %C = value defined by text_event - do not use with text_event!
# You can put quotation marks around the text to allow
# leading spaces
############################################################

# Locate and draw a box around the moving object.
# Valid values: on, off, preview (default: off)
# Set to 'preview' will only draw a box in preview_shot pictures.
locate_motion_mode off

# Set the look and style of the locate box if enabled.
# Valid values: box, redbox, cross, redcross (default: box)
# Set to 'box' will draw the traditional box.
# Set to 'redbox' will draw a red box.
```

Set to 'cross' will draw a little cross to mark center.

Set to 'redcross' will draw a little red cross to mark center.

locate_motion_style box

Draws the timestamp using same options as C function strftime(3)

Default: %Y-%m-%d\n%T = date in ISO format and time in 24 hour clock

Text is placed in lower right corner

text_right %Y-%m-%d\n%T-%q

Draw a user defined text on the images using same options as C function strftime(3)

Default: Not defined = no text

Text is placed in lower left corner

; text_left CAMERA %t

Draw the number of changed pixed on the images (default: off)

Will normally be set to off except when you setup and adjust the motion settings

Text is placed in upper right corner

text_changes off

This option defines the value of the special event conversion specifier %C

You can use any conversion specifier in this option except %C. Date and time

values are from the timestamp of the first image in the current event.

Default: %Y%m%d%H%M%S

The idea is that %C can be used filenames and text_left/right for creating

a unique identifier for each event.

text_event %Y%m%d%H%M%S

Draw characters at twice normal size on images. (default: off)

text_double on

Text to include in a JPEG EXIF comment

May be any text, including conversion specifiers.

The EXIF timestamp is included independent of this text.

;exif_text %i%J/%K%L

##

Target Directories and filenames For Images And Films

For the options snapshot_, picture_, movie_ and timelapse_filename

you can use conversion specifiers

%Y = year, %m = month, %d = date,

%H = hour, %M = minute, %S = second,

%v = event, %q = frame number, %t = thread (camera) number,

%D = changed pixels, %N = noise level,

%i and %J = width and height of motion area,

%K and %L = X and Y coordinates of motion center

%C = value defined by text_event

Quotation marks round string are allowed.

##

```
# Target base directory for pictures and films
# Recommended to use absolute path. (Default: current working directory)
target_dir /home/pi

# File path for snapshots (jpeg or ppm) relative to target_dir
# Default: %v-%Y%m%d%H%M%S-snapshot
# Default value is equivalent to legacy oldlayout option
# For Motion 3.0 compatible mode choose: %Y/%m/%d/%H/%M/%S-snapshot
# File extension .jpg or .ppm is automatically added so do not include this.
# Note: A symbolic link called lastsnap.jpg created in the target_dir will always
# point to the latest snapshot, unless snapshot_filename is exactly 'lastsnap'
snapshot_filename %v-%Y%m%d%H%M%S-snapshot

# File path for motion triggered images (jpeg or ppm) relative to target_dir
# Default: %v-%Y%m%d%H%M%S-%q
# Default value is equivalent to legacy oldlayout option
# For Motion 3.0 compatible mode choose: %Y/%m/%d/%H/%M/%S-%q
# File extension .jpg or .ppm is automatically added so do not include this
# Set to 'preview' together with best-preview feature enables special naming
# convention for preview shots. See motion guide for details
picture_filename %v-%Y%m%d%H%M%S-%q

# File path for motion triggered ffmpeg films (movies) relative to target_dir
# Default: %v-%Y%m%d%H%M%S
# Default value is equivalent to legacy oldlayout option
```

For Motion 3.0 compatible mode choose: %Y/%m/%d/%H%M%S

File extension .mpg or .avi is automatically added so do not include this

This option was previously called ffmpeg_filename

movie_filename %v-%Y%m%d%H%M%S

File path for timelapse movies relative to target_dir

Default: %Y%m%d-timelapse

Default value is near equivalent to legacy oldlayout option

For Motion 3.0 compatible mode choose: %Y/%m/%d-timelapse

File extension .mpg is automatically added so do not include this

timelapse_filename %Y%m%d-timelapse

##

Global Network Options

##

Enable or disable IPV6 for http control and stream (default: off)

ipv6_enabled off

##

Live Stream Server

##

The mini-http server listens to this port for requests (default: 0 = disabled)

stream_port 8081

Quality of the jpeg (in percent) images produced (default: 50)

stream_quality 50

Output frames at 1 fps when no motion is detected and increase to the

rate given by stream_maxrate when motion is detected (default: off)

stream_motion off

Maximum framerate for stream streams (default: 1)

stream_maxrate 1

Restrict stream connections to localhost only (default: on)

stream_localhost off

Limits the number of images per connection (default: 0 = unlimited)

Number can be defined by multiplying actual stream rate by desired number of seconds

Actual stream rate is the smallest of the numbers framerate and stream_maxrate

stream_limit 0

Set the authentication method (default: 0)

0 = disabled

1 = Basic authentication

2 = MD5 digest (the safer authentication)

stream_auth_method 0

Authentication for the stream. Syntax username:password

```
# Default: not defined (Disabled)
; stream_authentication username:password


############################################################
# HTTP Based Control
############################################################

# TCP/IP port for the http server to listen on (default: 0 = disabled)
webcontrol_port 8080

# Restrict control connections to localhost only (default: on)
webcontrol_localhost on

# Output for http server, select off to choose raw text plain (default: on)
webcontrol_html_output on

# Authentication for the http based control. Syntax username:password
# Default: not defined (Disabled)
; webcontrol_authentication username:password


############################################################
# Tracking (Pan/Tilt)
############################################################
```

```
# Type of tracker (0=none (default), 1=stepper, 2=iomojo, 3=pwc, 4=generic, 5=uvcvideo, 6=servo)
# The generic type enables the definition of motion center and motion size to
# be used with the conversion specifiers for options like on_motion_detected
track_type 0

# Enable auto tracking (default: off)
track_auto off

# Serial port of motor (default: none)
;track_port /dev/ttyS0

# Motor number for x-axis (default: 0)
;track_motorx 0

# Set motorx reverse (default: 0)
;track_motorx_reverse 0

# Motor number for y-axis (default: 0)
;track_motory 1

# Set motory reverse (default: 0)
;track_motory_reverse 0

# Maximum value on x-axis (default: 0)
```

;track_maxx 200

Minimum value on x-axis (default: 0)

;track_minx 50

Maximum value on y-axis (default: 0)

;track_maxy 200

Minimum value on y-axis (default: 0)

;track_miny 50

Center value on x-axis (default: 0)

;track_homex 128

Center value on y-axis (default: 0)

;track_homey 128

ID of an iomojo camera if used (default: 0)

track_iomojo_id 0

Angle in degrees the camera moves per step on the X-axis

with auto-track (default: 10)

Currently only used with pwc type cameras

track_step_angle_x 10

```
# Angle in degrees the camera moves per step on the Y-axis
# with auto-track (default: 10)
# Currently only used with pwc type cameras
track_step_angle_y 10

# Delay to wait for after tracking movement as number
# of picture frames (default: 10)
track_move_wait 10

# Speed to set the motor to (stepper motor option) (default: 255)
track_speed 255

# Number of steps to make (stepper motor option) (default: 40)
track_stepsize 40

############################################################
# External Commands, Warnings and Logging:
# You can use conversion specifiers for the on_xxxx commands
# %Y = year, %m = month, %d = date,
# %H = hour, %M = minute, %S = second,
# %v = event, %q = frame number, %t = thread (camera) number,
# %D = changed pixels, %N = noise level,
# %i and %J = width and height of motion area,
# %K and %L = X and Y coordinates of motion center
```

%C = value defined by text_event

%f = filename with full path

%n = number indicating filetype

Both %f and %n are only defined for on_picture_save,

on_movie_start and on_movie_end

Quotation marks round string are allowed.

##

Do not sound beeps when detecting motion (default: on)

Note: Motion never beeps when running in daemon mode.

quiet on

Command to be executed when an event starts. (default: none)

An event starts at first motion detected after a period of no motion defined by event_gap

; on_event_start value

Command to be executed when an event ends after a period of no motion

(default: none). The period of no motion is defined by option event_gap.

; on_event_end value

Command to be executed when a picture (.ppm|.jpg) is saved (default: none)

To give the filename as an argument to a command append it with %f

; on_picture_save value

Command to be executed when a motion frame is detected (default: none)

; on_motion_detected value

Command to be executed when motion in a predefined area is detected

Check option 'area_detect'.   (default: none)

; on_area_detected value

Command to be executed when a movie file (.mpg|.avi) is created. (default: none)

To give the filename as an argument to a command append it with %f

; on_movie_start value

Command to be executed when a movie file (.mpg|.avi) is closed. (default: none)

To give the filename as an argument to a command append it with %f

; on_movie_end value

Command to be executed when a camera can't be opened or if it is lost

NOTE: There is situations when motion don't detect a lost camera!

It depends on the driver, some drivers dosn't detect a lost camera at all

Some hangs the motion thread. Some even hangs the PC! (default: none)

; on_camera_lost value

##

Common Options for database features.

Options require database options to be active also.

##

Log to the database when creating motion triggered picture file (default: on)

; sql_log_picture on

Log to the database when creating a snapshot image file (default: on)

; sql_log_snapshot on

Log to the database when creating motion triggered movie file (default: off)

; sql_log_movie off

Log to the database when creating timelapse movies file (default: off)

; sql_log_timelapse off

SQL query string that is sent to the database

Use same conversion specifiers has for text features

Additional special conversion specifiers are

%n = the number representing the file_type

%f = filename with full path

Default value:

Create tables :

##

Mysql

CREATE TABLE security (camera int, filename char(80) not null, frame int, file_type int, time_stamp timestamp(14), event_time_stamp timestamp(14));

#

Postgresql

CREATE TABLE security (camera int, filename char(80) not null, frame int, file_type int, time_stamp timestamp without time zone, event_time_stamp timestamp without time zone);

#

insert into security(camera, filename, frame, file_type, time_stamp, text_event) values('%t', '%f', '%q', '%n', '%Y-%m-%d %T', '%C')

; sql_query insert into security(camera, filename, frame, file_type, time_stamp, event_time_stamp) values('%t', '%f', '%q', '%n', '%Y-%m-%d %T', '%C')

##

Database Options

##

database type : mysql, postgresql, sqlite3 (default : not defined)

; database_type value

database to log to (default: not defined)

; database_dbname value

The host on which the database is located (default: localhost)

; database_host value

User account name for database (default: not defined)

; database_user value

User password for database (default: not defined)

; database_password value

Port on which the database is located

mysql 3306 , postgresql 5432 (default: not defined)

; database_port value

##

Database Options For SQLite3

##

SQLite3 database (file path) (default: not defined)

; sqlite3_db value

##

Video Loopback Device (vloopback project)

##

Output images to a video4linux loopback device

The value '-' means next available (default: not defined)

; video_pipe value

Output motion images to a video4linux loopback device

The value '-' means next available (default: not defined)

; motion_video_pipe value

```
############################################################

# Thread config files - One for each camera.

# Except if only one camera - You only need this config file.

# If you have more than one camera you MUST define one thread

# config file for each camera in addition to this config file.

############################################################


# Remember: If you have more than one camera you must have one

# thread file for each camera. E.g. 2 cameras requires 3 files:

# This motion.conf file AND thread1.conf and thread2.conf.

# Only put the options that are unique to each camera in the

# thread config files.

; thread /usr/local/etc/thread1.conf

; thread /usr/local/etc/thread2.conf

; thread /usr/local/etc/thread3.conf

; thread /usr/local/etc/thread4.conf
```