

Forum:[Hack Forums](#)

Thread: [Make: IP Security Camera](#)

slober - July 2, 2016, 5:09 pm

A few days (2) ago they broke into our car. We don't know who did it we don't have security cameras so they will likely get away with it.

This thing gave me an idea what would happen if we had a camera and an early warning system in place?

would it still happen or could we intervene in time?

we would have those important evidence for the insurance company and the police.

With a camera and software in place we could potentially stop them (Proud gun owner ?)

Owkey what do we actually need?

Raspberry-pi b+ (or better)

Supported webcam (PSeYE from a playstation3)

Internet cable or wifi dongle

All the basic stuff required for the pi (sd card, rasbian os, power adapter,...)

I used a PSeYE webcam from my old playstation 3 it's more than enough for this although it wouldn't provide 1080p quality (640x480 @30fps) it's still pretty decent for a security camera (if you have a better camera feel free to use it).

First things first!

Get yourself a nice clean microSD card with a fresh rasbian os distro

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follow the installation steps here:

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Let's get the software!

Just get the software if you want to update the system first and do some other things feel free but this is just a security cam tutorial ?

Code `sudo apt-get install motion`

This will install the motion software packet this is your security system

at this point hook up the webcam if you haven't already and restart the motion service.

Code `sudo service motion restart`

This are the basic POC steps.

Let's get it to work better!

Owkey, you could take this a bit further and tune the system a bit more

Let's open the motions.conf file

Code `sudo nano /etc/motion/motion.conf`

You could alter a few setting here and there. I did the following

Code `daemon on`

`logfile /tmp/motion.log`

width 640
height 480

framerate 27

threshold 1750

post_capture 5

stream_maxrate 20

stream_localhost off

webcontrol_localhost off

Try to read the file and replace edit the stuff you need appropriately

Next.. To ensure the service starts when the pi starts
Code `sudo nano /etc/default/motion`--> no to yes

Restart the service. at this point everything should work if you have problems with crashes you should change the rights to the `/var/lib/motion` folder to 777 or equivalent

Code `sudo chmod -R 777 /var/lib/motion`
Everything should work now!

Extra's!

I also installed Apache2 and made a virtual directory to the `/var/lib/motion` folder for easy access.

Pictures! Example:

Spoiler ([Click to View](#))

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<http://raspberrypi.stackexchange.com/questions/41342/how-to-start-motion-in-daemon-mode-on-rpi-running-raspbian-jessie>

<https://www.raspberrypi.org/forums/viewtopic.php?t=36009&p=302814>

<https://pimylifeup.com/raspberry-pi-webcam-server/>
I've added a small update ?

Phone notification:

It's pretty awesome ?

reviewing the images on the go is much quicker then watching them all when you're back. That's why we should enable phone push notifications

I'm not going to build a from scratch android application my internship was 3 months native android and I hated it xD

This is the api we are going to use!

Code <https://instapush.im/Download> the app follow the registration instructions,... and all that other basic steps

next you should make an app you can do this in the dashboard

Dashboard -> apps -> add application -> give it a name -> submit

Dashboard -> apps -> click on your application -> add event -> give it a name , add all the information,.... -> submit

Give the tracker a nice name and remember it you'll need it later also include the tracker inside the message {YOUR_TRACKER_NAME}

Also check if your phone is in the devices list.

For the code I chose this python code i found on the magic place called google I deleted a few parts in it to make it run a bit smoother and make it work for my thing just a basic setup no fancy things...

Code I can't upload the code here hackforums keeps blocking it xD

<http://pastebin.com/cU7X1GXa>

You can find your api and secret key on the basic info tab.

Upload it to your pi give it execute permissions and your done now you just need to go into the config file /etc/motion/motion.conf

find your event there are a few:

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on_movie_end

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As you can see you could add many things to it maybe do some ftp when the movie file has been written or simply save the pictures,...

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If you're having trouble setting this up please pm me everyone should have a security cam in these brutal and dark times!

webdev77 - July 2, 2016, 8:33 pm

Very nice post! I was expecting a question asking how to build this, but instead got a nice tutorial showing the process.

I don't have a pi, but if anyone else does this, I'd love to see some pictures.

Pillows - July 2, 2016, 8:39 pm

I've gotta say, nice job on tutorial. I was thinking of doing the same thing but my pi is currently acting as my test server and is enclosed in a weird case :p (Makes it hard to put near a window)

TyrantKingBen - July 2, 2016, 8:42 pm

Nice post. I used a Raspberry Pi kit that came with a camera and WiFi adapter for a project before (albeit I didn't need either and just used the Ethernet port). It didn't come with an SD card, but nonetheless, the kit would be perfect for this project.

Looking quickly on Amazon I found a bunch of kits with everything for ~\$70.

HANKK ? - July 3, 2016, 2:38 am

Well this is a refreshing tutorial..

I've been thinking of how I could make a small security camera in my room for while I'm gone.

Unfortunately, I have to yet pick up a Raspberry Pi :/

slober - July 3, 2016, 3:12 pm

(Jul 3, 2016 02:38 AM)HANKK ? Wrote: [\[CITE\]](#) Well this is a refreshing tutorial..

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Unfortunately, I have to yet pick up a Raspberry Pi :/

you could also use your normal computer or vm running a debian based system

Motion should run fine on it maybe even better/smoothier ?

I've also added a small update ?

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code20 - July 3, 2016, 4:24 pm

Very nice post keep it up man

Mr. Robot - July 3, 2016, 4:34 pm

Thanks for the share man, I have a similar setup -

Waiting on my rpi zero camera then will test this out.

Ventriloquism - July 7, 2016, 5:45 am

This looks like a fun project, nice share ?

Lit1 - July 8, 2016, 2:39 pm

awesome will be using this been trying to get my their

razvandc - July 19, 2016, 5:57 am

Thanks a lot, i just start to do it.

roissy - August 2, 2016, 11:45 am

thank for effort, good issue (:

datguy.dev - August 6, 2016, 4:32 pm

I made one using an FPV camera and a tilt/pan system. The only issue I had was when it would rain, motion would fill up the disk. Nice toot.

Chief Mark - August 6, 2016, 4:35 pm

Looks very interesting, how much does this setup cost. Sorry for being lazy :D

Stirate - August 7, 2016, 10:54 pm

Awesome that you made a tutorial rather than asking for help, as I expected.

slober - August 8, 2016, 4:18 pm

(Aug 6, 2016 04:32 PM)datguy.dev Wrote: [\[CITE\]](#) I made one using an FPV camera and a tilt/pan system. The only issue I had was when it would rain, motion would fill up the disk. Nice toot.

Cloudy days with wind it really kills the storage... (8gb) I'm lucky my webcam is only 480p.

I've increased the number of pixel change in the frame needed for the motion trigger to trigger.

(Aug 6, 2016 04:35 PM)Chief Mark Wrote: [\[CITE\]](#) Looks very interesting, how much does this setup cost. Sorry for being lazy :D

I had all the items on hand so for me it was a zero cost project still running today.

you should be able to set this up (if you have a raspberry pi) for under \$30 depending on the webcam and the SD

You'll need:Webcam (480p is fine)

Maybe an USB extension cord

Power brick for the pi (2A+)

micro SD card (8gb class 10)

PI (B,B+,2,3,..)

Enjoy666 - April 4, 2017, 11:48 pm

thanks for sharing this stuff

Silver Fang - April 4, 2017, 11:56 pm

Would it work with a webcamera?

Seems quite nice, however if someone is gonna buy from scratch without anything then it'll probably be cheaper to just buy a security camera (cheap one)

kpown - April 5, 2017, 9:55 am

What a fantastic post! I'm going to literally do this the second I get home

Rj Pasquale - June 4, 2022, 3:35 am

(Jul 2, 2016 05:09 PM)slober Wrote: [\[CITE\]](#) A few days (2) ago they broke into our car. We don't know who did it we don't have security cameras so they will likely get away with it.

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I can appreciate the time and intelligence and effort you put into this post. I really can and kudos by the way my friend.

But that seems like a shit ton of work for something you can do with an old cell phone and a modded version of Alfred or any others wifi camera....js.

TerminalJester - June 4, 2022, 6:15 am

Solid information my friend! Just so happens I have a couple extra raspberry pi's laying around. I will try this and see how well it works.

Thank you for such a wonderful contribution!