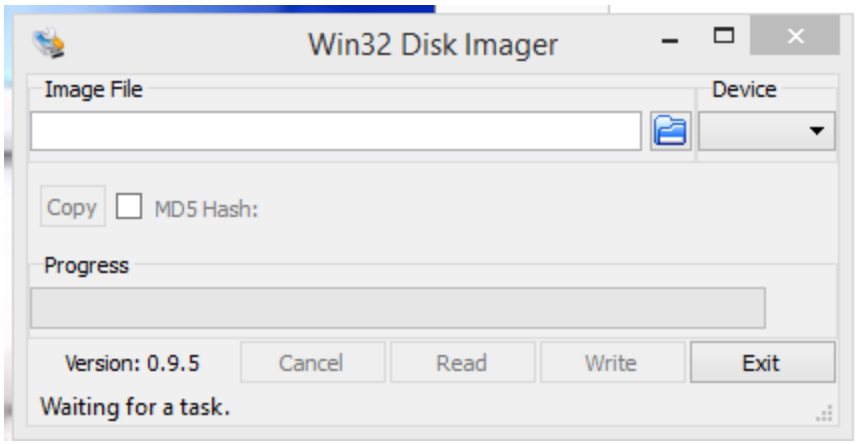
Software:

The password for GMAIL had to be changed to doorbell2

Raspberry Pi image:
https://mega.nz/file/YJk3RDzT#dFZdAtWbs6ZBAu65Gv6DJ6aC3KF5G0JBc2lXXgwoSC8
This was developed on a PI 2, the image may not work on the PI 3.

It is very simple to make this project, just flash the SD card using Win32 Disk imager, load the image file and press write and that's all the software done!



RUN **LCD3.py!!**

Here is the code in **Git**: https://github.com/in06khattab/Doorbell-6--final-

Hardware:

I used this for the speaker
http://www.ebay.co.uk/itm/PAM8403-5V-DC-Audio-Amplifier-Board-2-Channel-3W-2-Volume-Control-USB-Power-Hot-/281516168118?pt=UK_BOI_Electrical_Components_Supplies_ET&var=&hash=item418babd3b6

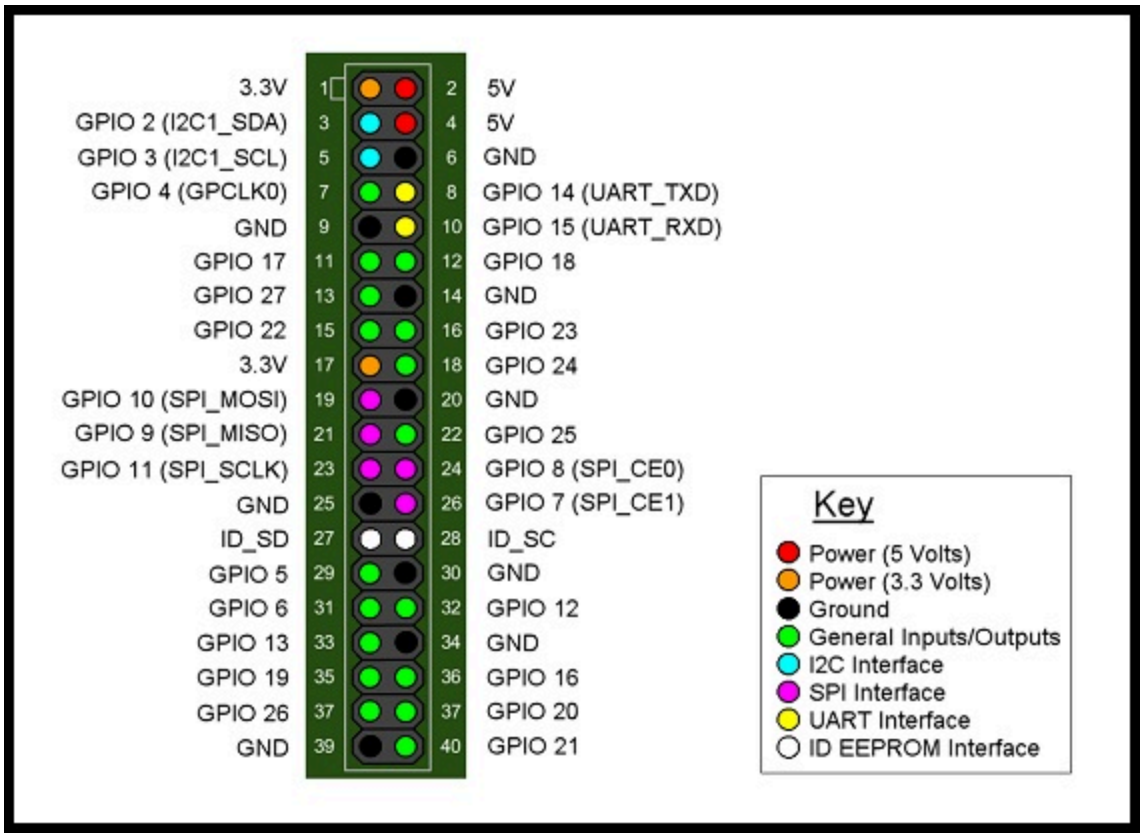
This is the doorbell that I took apart:
http://www.ebay.co.uk/itm/321664088801?_trksid=p2060353.m2749.l2649&ssPageName=STRK%3AMEBIDX%3AIT

I used this camera:
http://www.ebay.co.uk/itm/271702042292?_trksid=p2060353.m2749.l2649&ssPageName=STRK%3AMEBIDX%3AIT

Audio breakout:
http://www.ebay.co.uk/itm/141445037537?_trksid=p2060353.m2749.l2649&ssPageName=STRK%3AMEBIDX%3AIT

Connect a Raspberry Pi camera to the Camera connector:

Open up a wireless doorbell and connect the speaker wires to gpio 7 (pin 26) and ground (14) (through a 10K ohm resistor) to the Raspberry Pi pins. Connect the battery pins of the doorbell circuit to the 3.3 V and ground. Test this by pushing the wireless doorbell switch and you should hear the “ding dong”



Connect a USB microphone to the Raspberry Pi.

Connect the LCD to the Raspberry Pi and make sure there are no short circuits. Insert the newly flashed SD card into the Raspberry Pi and turn it on.

Connect the Raspberry Pi to the local network either by wifi or ethernet.

Stream locally, run LCD3.py and press the left button and go to the RPi's ip address:8080. Press the right button to stop.

To stream to youtube, perform the following commands in terminal:
cd ./arm/bin
raspivid -o - -t 0 -w 1270 -h 720 -fps 25 -b 600000 -g 50 | ./ffmpeg -re -ar 44100 -ac 2 -acodec pcm_s16le -f s16le -ac 2 -i /dev/zero -f h264 -i - -vcodec copy -acodec aac -ab 128k -g 50 -strict experimental -f flv rtmp://a.rtmp.youtube.com/live2/DoorBellDing.aaeb-jj84-1hcv-93k4

Then go to your doorbell's channel and view the stream.

Local streaming: raspivid -t 999999 -w 1280 -h 720 -fps 10 -b 2000000 -o - | gst-launch-1.0 -e -vvv fdsrc ! h264parse ! rtph264pay pt=96 config-interval=5 ! udpsink host=192.168.0.19 port=5000
raspivid -t 0 -b 2000000 -n -o - | gst-launch-1.0 -e -vvvv fdsrc ! h264parse ! flvmux ! rtmpsink location=rtmp://localhost/rtmp/live

Use https://ngrok.com/ to view the Raspberry Pi stream.
(https://learn.adafruit.com/monitor-your-home-with-the-raspberry-pi-b-plus/access-your-pi-from-anywhere)

Login details for the doorbell is below. Use it to add yourself as a contact for hangouts access and send a test message to yourself. Keep using the old style chat as it works:
doorbellding
doorbell1

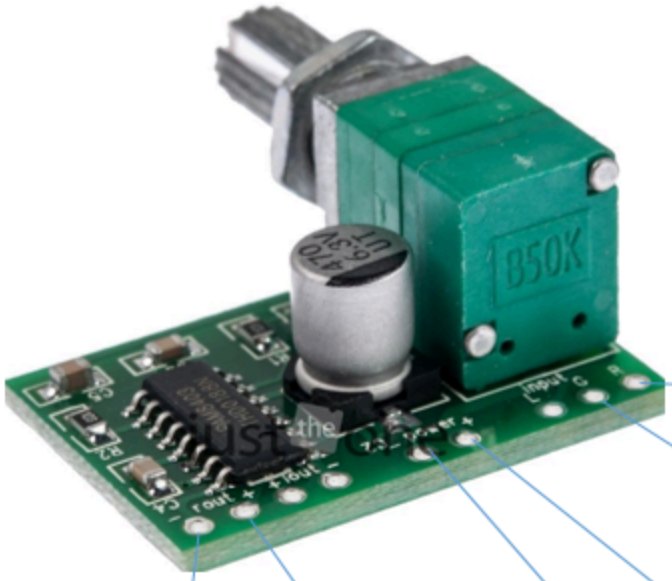
Connect an external speaker:

I bought this:
http://www.ebay.co.uk/itm/PAM8403-5V-DC-Audio-Amplifier-2-Channel-3W-2-Volume-Control-USB-Power-New-Board-/371183702252?pt=LH_DefaultDomain_3&hash=item566c45d0ec

And a replacement headphone jack like this:
http://www.ebay.co.uk/itm/141445037537?_trksid=p2060778.m2749.l2648&ssPageName=STRK%3AMEBIDX%3AIT

Connect as shown in the image below and test it out with the following command "omxplayer test.mp3" in terminal. Rather than connect to 5v, connect to the high pin of the LED (it stops the pi restarting when switched on)

Music should play from the speaker. Any speaker should work. I used USB power as the PI kept restarting when the switch was turned.



To the right (longer side of headphone jack)

To the ground of the headphone jack (long one at the back)

To 5v on pi

To GND on pi

Connect to a speaker, polarity matters, so this goes to negative. If it does not say, try both

Connect to a speaker, polarity matters, so this goes to positive. If it does not say, try both

The middle size one is the right

The long one is the ground

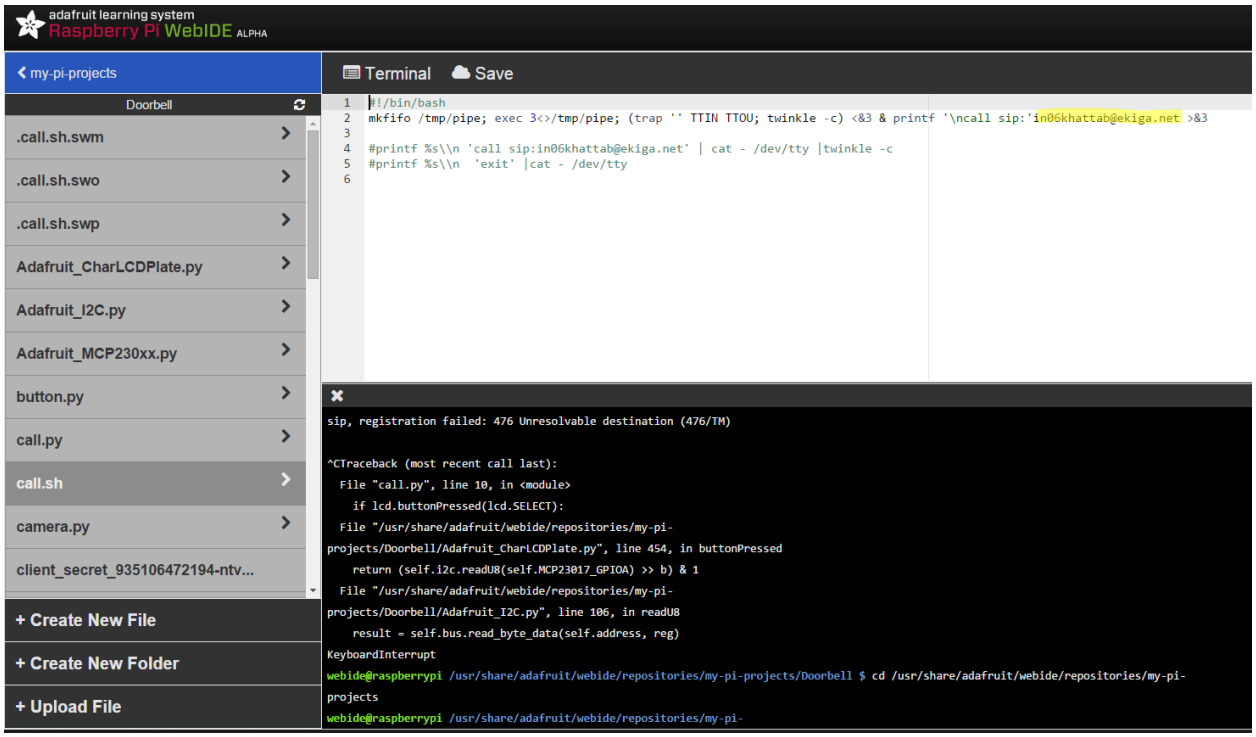
The middle size one is the right

The long one is the ground

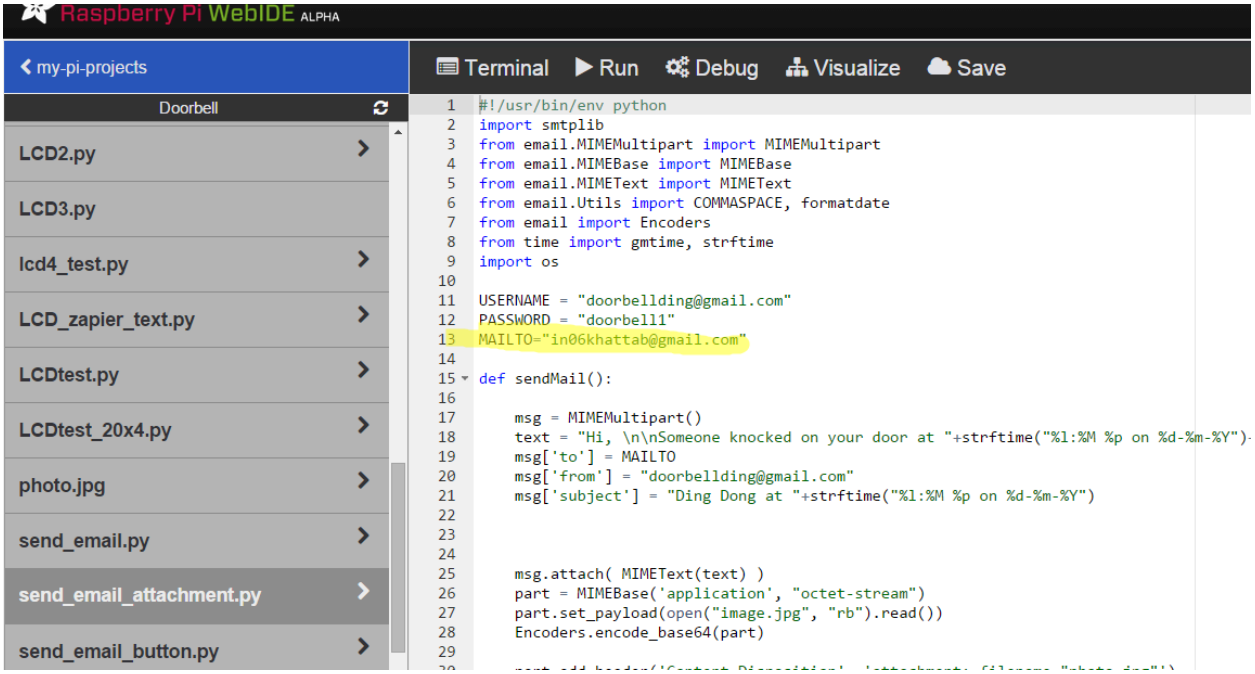
Changing settings

From any PC, go to the Raspberry Pi's ip address.
Go to /my-pi-projects/Doorbell

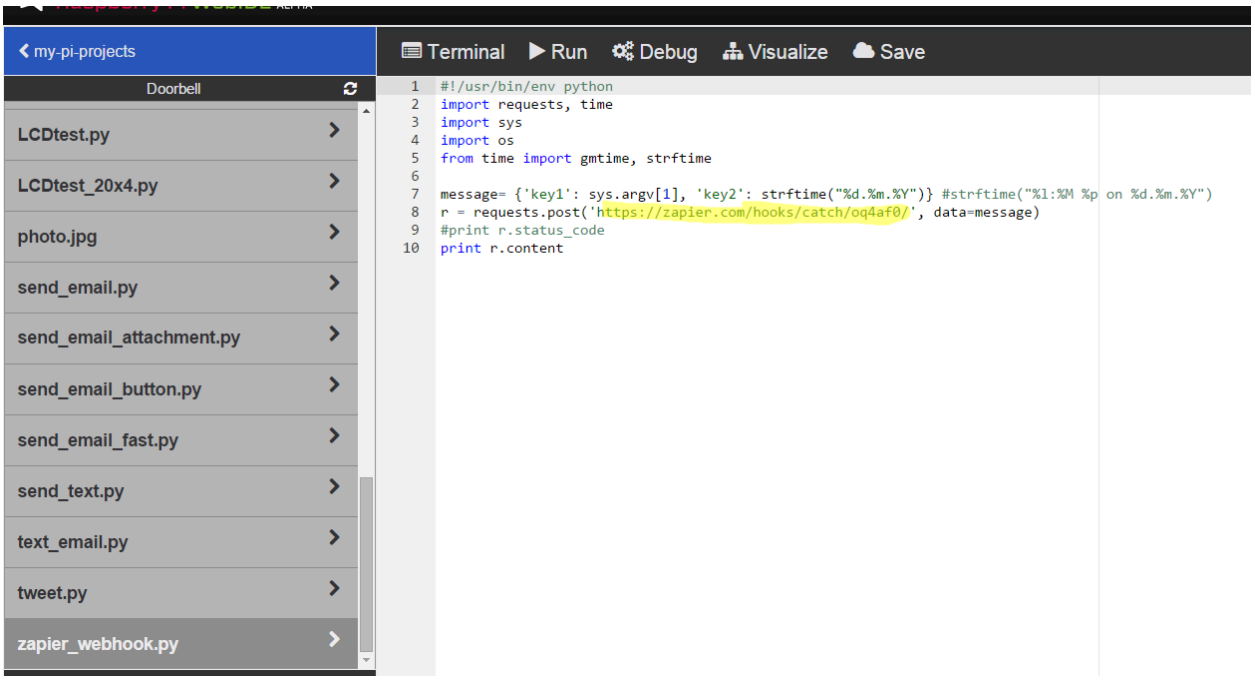
Intercom:
Create a free Sip account from Ekiga.net and change the email address in the call.sh file:



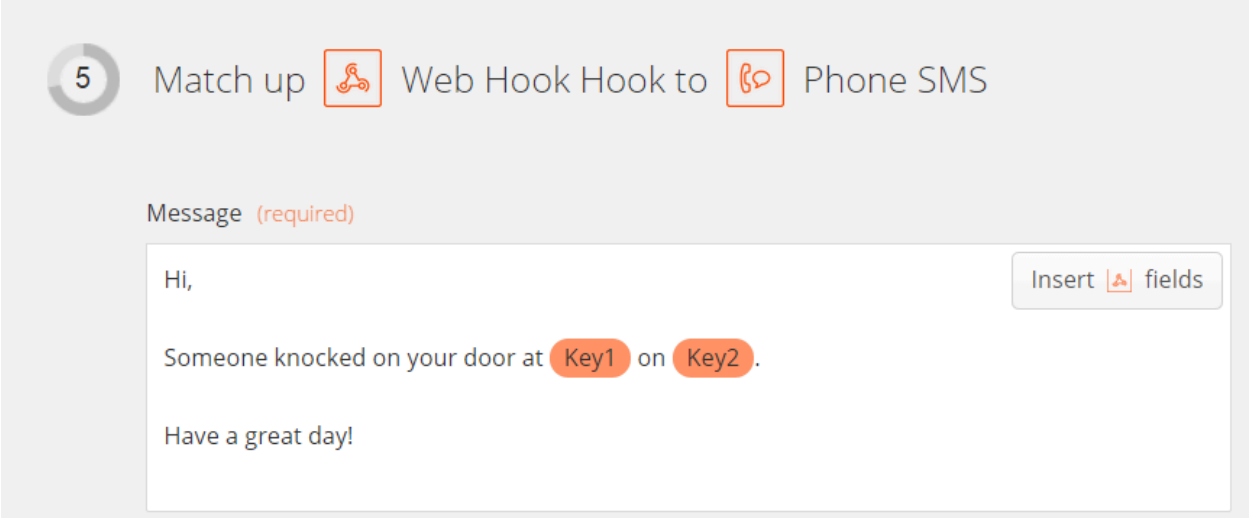
Email:
Go to the send_email_attachment.py and change the MAILTO address to your email address.



Text message:
Create a free zapier account https://zapier.com and create a trigger with a webhook to a phone SMS. Insert the URL into step 2 of the “Select a Web Hook account”. Paste this into the zapier_webhook.py file.

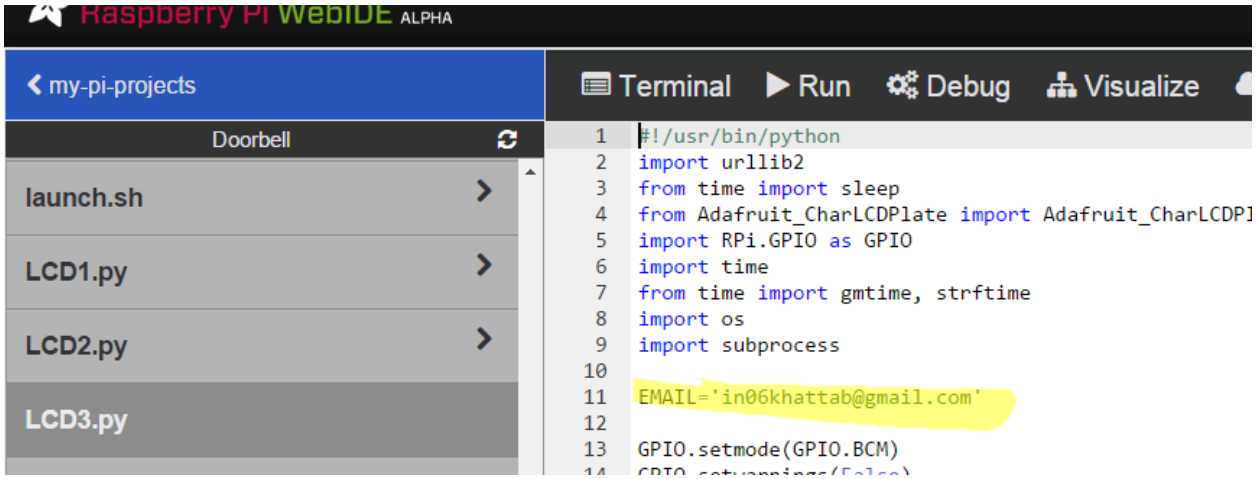


Enter your phone number into step 3 of Zapier. Run this code and them match up the keys as follows to customise your text message. Key 1 is the time and Key 2 is the date.



Finally, give it a name and turn it on.

Hangouts:
Change this email address in LCD3.py and send a sample hangouts message to doorbellding@gmail.com.



Twitter:

Go to tweet.py and change this to your Twitter username.

```
#!/usr/bin/env python
# -*- coding: utf-8 -*-

import tweepy, time, sys
from tweepy import OAuthHandler
from time import gmtime, strftime


#enter the corresponding information from your Twitter application:
CONSUMER_KEY = 'dS3RgnaO2UMbYSXFd3aGWdlog'#keep the quotes, replace this with
CONSUMER_SECRET = 'zWmGQLiV5ZYPn3cKgFx1etmVx5tZxNYYb9mbO8ZA85p2OwaPDA'#keep th
ACCESS_KEY = '3001952026-sml60Kzd2CAshTGJlHQ6XjayzvDScKSjgMsz8uU'#keep the quo
ACCESS_SECRET = 'pcp4WSS9Xbgl2BeAzqMsmiOsh45SSMeQbrVUHw3iXIS1d'#keep the quote
auth = tweepy.OAuthHandler(CONSUMER_KEY, CONSUMER_SECRET)
auth.set_access_token(ACCESS_KEY, ACCESS_SECRET)

try:
    api = tweepy.API(auth)
    line="@in06khattab Ding Dong at "+strftime("%l:%M %p on %d-%m-%Y")

    api.update_status(status=line)
except tweepy.TweepError as e:
    print e.message[0]['code']  # prints 34
    print e.args[0][0]['code']  # prints 34
```

cd /home/webide/repositories/my-pi-projects/Doorbell/
sudo python LCD3.py

Password for hangouts is here: open sd card image and search file contents with
https://www.paragon-software.com/home/linuxfs-windows/
Replace doorbell1 with doorbell2. Probably in /etc/sendhangouts or sendxmpprc

End twinkle
sudo pkill -9 twinkle