

# Home Assistant

[[homeassistant](#), [domotic](#)]

- [home assistant](#)
- [raspberry](#)
- <https://github.com/scipioni/home-assistant-example>

## Install

- [example 1](#)
- `pip3 install urllib3==1.20 -upgrade -target ~/.homeassistant/deps/` (telegram notify solved)

## upgrade

```
pip install -U homeassistant
```

and after restart home assistant

## with fabric

- <https://github.com/home-assistant/fabric-home-assistant>

## hass

```
apt install python3 python3-venv
python3 -m venv ~/lib
. ~/lib/bin/activate
echo "source ~/lib/bin/activate" >> ~/.bashrc
pip install -U pip
pip install homeassistant
```

service

[/etc/systemd/system/home-assistant.service](#)

```
[Unit]
Description=Home Assistant
After=network.target

[Service]
Type=simple
User=pi
ExecStart=/home/pi/lib/bin/hass -c "/home/pi"

[Install]
```

```
WantedBy=multi-user.target
```

## z-wave

[/etc/udev/rules.d/local.conf](#)

```
SUBSYSTEM=="tty", ACTION=="add", ATTRS{idVendor}=="0658",  
ATTRS{idProduct}=="0200", SYMLINK+="zwave"
```

```
sudo apt install cython3 libudev-dev python3-sphinx python3-setuptools
```

```
. ~/lib/bin/activate  
pip install cython
```

as normal user (no root)

```
. ~/lib/bin/activate  
cd ~/  
git clone --depth 1 https://github.com/OpenZWave/python-openzwave.git  
cd python-openzwave  
make build  
make install
```

```
sudo apt install libmicrohttpd-dev  
cd ~/  
git clone --depth 1 https://github.com/OpenZWave/open-zwave-control-  
panel.git  
cd open-zwave-control-panel/  
# patch Makefile: see below  
ln -s ~/lib/lib/python3.4/site-packages/libopenzwave-0.3.1-py3.4-linux-  
armv7l.egg/config  
make
```

patch Makefile

```
--- Makefile.orig 2017-01-05 08:32:39.315501504 +0100  
+++ Makefile 2017-01-05 08:33:38.385173320 +0100  
@@ -21,7 +21,7 @@  
 CFLAGS := -c $(DEBUG_CFLAGS)  
 LDFLAGS := $(DEBUG_LDFLAGS)  
  
-OPENZWAVE := ../open-zwave/  
+OPENZWAVE := ../python-openzwave/openzwave/  
 LIBMICROHTTPD := -L/usr/local/lib/ -lmicrohttpd
```

```

INCLUDES := -I $(OPENZWAVE)/cpp/src -I
$(OPENZWAVE)/cpp/src/command_classes/ \
@@ -34,15 +34,15 @@

# for Linux uncomment out next three lines
LIBZWAVE := $(wildcard $(OPENZWAVE)/*.a)
-#LIBUSB := -ludev
-#LIBS := $(LIBZWAVE) $(GNUTLS) $(LIBMICROHTTPD) -pthread $(LIBUSB) -lresolv
+LIBUSB := -ludev
+LIBS := $(LIBZWAVE) $(GNUTLS) $(LIBMICROHTTPD) -pthread $(LIBUSB) -lresolv

# for Mac OS X comment out above 2 lines and uncomment next 5 lines
#ARCH := -arch i386 -arch x86_64
#CFLAGS += $(ARCH)
#LIBZWAVE := $(wildcard $(OPENZWAVE)/cpp/lib/mac/*.a)
-LIBUSB := -framework IOKit -framework CoreFoundation
-LIBS := $(LIBZWAVE) $(GNUTLS) $(LIBMICROHTTPD) -pthread $(LIBUSB) $(ARCH) -
lresolv
+#LIBUSB := -framework IOKit -framework CoreFoundation
+#LIBS := $(LIBZWAVE) $(GNUTLS) $(LIBMICROHTTPD) -pthread $(LIBUSB) $(ARCH)
-lresolv

%.o : %.cpp
$(CXX) $(CFLAGS) $(INCLUDES) -o $@ $<

```

## z-wave panel control

```

sudo systemctl stop home-assistant
cd ~/open-zwave-control-panel
./ozwcp -p 8888

```

open <http://pi:8888> and initialize /dev/ttyACM0

```

CTRL+C
sudo systemctl start home-assistant

```

## reverse proxy

</etc/nginx/sites-enabled/homeassistant>

```

server {
    listen 80;
    server_name "scipio.csgalileo.org";

    # create this folder empty
    location /.well-known/acme-challenge {
        root /var/www;
    }
}

```

```
    allow all;
}

location / {
    return 301 https://$server_name$request_uri;
}

server {
    listen 443 ssl;
    server_name "scipio.csgalileo.org";
    ssl on;

    proxy_buffering off;
    location / {
        proxy_pass http://localhost:8123/;
        proxy_set_header Host $host;
    }

    ssl_certificate /etc/ssl/certs/scipio.csgalileo.org.cer;
    ssl_certificate_key /etc/ssl/private/scipio.csgalileo.org.key;
}
```

## MQTT

```
apt install mosquitto
```

```
mosquitto_passwd /etc/mosquitto/pwfile scipio
```

## zones

```
mosquitto_passwd /etc/mosquitto/pwfile simo
```

```
~/homeassistant/known_devices.yaml
```

## github

setup

```
git config --global push.default simple
git clone https://github.com/scipioni/home-assistant.git
cd home-assistant
```

```
git remote add upstream https://github.com/home-assistant/home-assistant.git
git fetch -v

# script/setup
```

create a branch with expected work

```
git branch telegram-webhooks
git checkout telegram-webhooks
git push --set-upstream origin telegram-webhooks
```

everyday work on branch

```
...
git add
git commit
git push
```

rebase before pull request

```
git fetch upstream dev
git rebase upstream/dev

# in case of conflicts
... edit conflicts
git add ...
git rebase --continue

# -f is necessary (Git will reject it because there isn't a direct path from
the commit on the server to the commit on your branch)
git push -f
```

now in github project "new pull request"

## github docs

```
git clone https://github.com/scipioni/home-assistant.git
cd home-assistant.github.io.git
git remote add upstream https://github.com/home-assistant/home-
assistant.github.io.git
git fetch -v

# script/setup
```

create a branch with expected work

```
git branch telegram-webhooks
git checkout telegram-webhooks
```

```
git push --set-upstream origin telegram-webhooks
```

ruby

```
sudo apt install y ruby ruby-dev  
sudo gem install bundler  
cd home-assistant.github.io.git  
bundle  
rake generate
```

test site

```
rake preview
```

everyday work on branch

```
...  
git add  
git commit  
git push
```

rebase before pull request

```
git fetch upstream next  
git rebase upstream/next  
  
# in case of conflicts  
... edit conflicts  
git add ...  
git rebase --continue  
  
# -f is necessary (Git will reject it because there isn't a direct path from  
the commit on the server to the commit on your branch)  
git push -f
```

now in github project “new pull request”

## motion

Install latest release from <https://github.com/Motion-Project/motion>

[/etc/motion/motion.conf](#)

```
on_picture_save /usr/bin/motion-homeassistant %f
```

[/usr/bin/motion-homeassistant](#)

```
#!/bin/sh

F=$1
ln -sf $(basename $F) $(dirname $F)/lastsnap.jpg
```

## config.yaml

```
camera:
  - platform: local_file
    name: soggiorno
    file_path: /media/usb0/photo/lastsnap.jpg
```

## sensors

- /dev-service → zwave → setconfigparameter

disable LED on fibardo FGMS-001

```
{
  "node_id": 3,
  "parameter": 80,
  "value": 0
}
```

Foscam IP camera

```
vlc rtsp://hass:password1@192.168.2.14:554/videoMain
```

## automation

create a virtual switch

### input\_boolean.yaml

```
motion_detected:
  name: Motion rilevato
  initial: off
  icon: mdi:run
```

we can turn on this virtual switch with as web service

```
curl -X POST -H "x-ha-access: xxx" -H "Content-Type: application/json" -d '{"state": "on"}' \
```

```
http://localhost:8123/api/states/input_boolean.motion_detected
```

automation that reset virtual switch after 2 seconds

[automation/on-motion.yaml](#)

```
alias: 'reset motion state'  
trigger:  
  platform: state  
  entity_id: input_boolean.motion_detected  
  to: 'on'  
action:  
  # after two seconds reset motion_detected state  
  - delay: '00:00:02'  
  - service: input_boolean.turn_off  
    data:  
      entity_id: input_boolean.motion_detected
```

## camera motion

- <https://github.com/hokus15/home-assistant-config>

```
sudo apt install incron
```

as hass user edit incron table 'incrontab -e' (incrontab -l to see)

```
/media/usb0/photo/C1_00626E611E80/snap/ IN_CLOSE_WRITE echo "$$ @$ $# $% $&"
```

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<https://wiki.csgalileo.org/> - Galileo Labs

Permanent link:  
<https://wiki.csgalileo.org/projects/internetofthings/homeassistant?rev=1504092881>

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