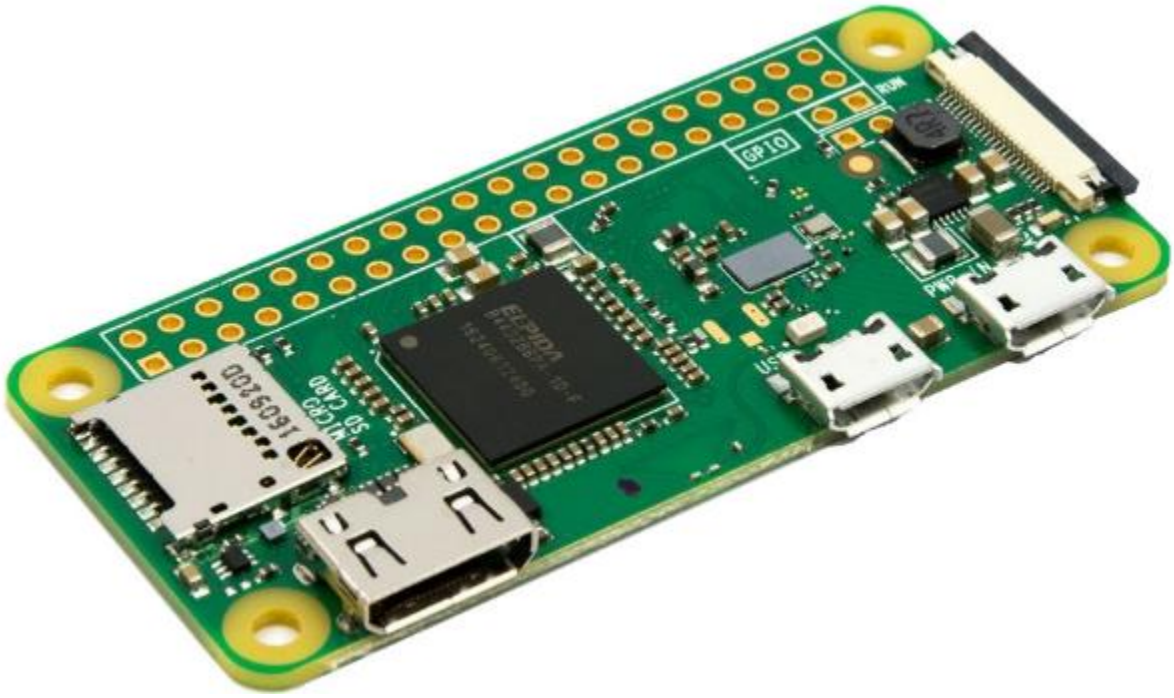
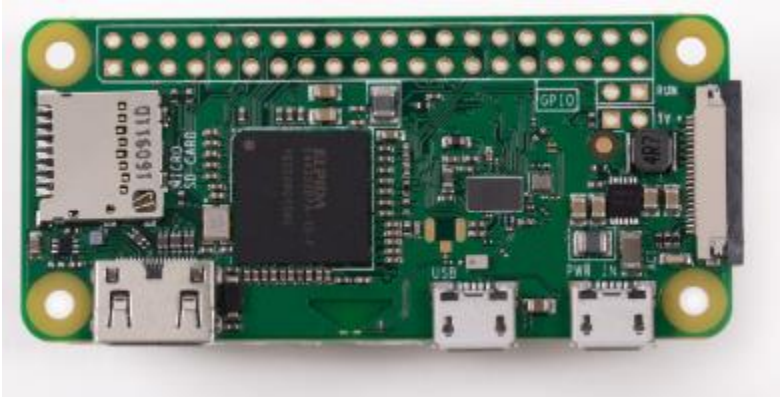
Chapter 1: Introduction to Raspberry Pi Zero W

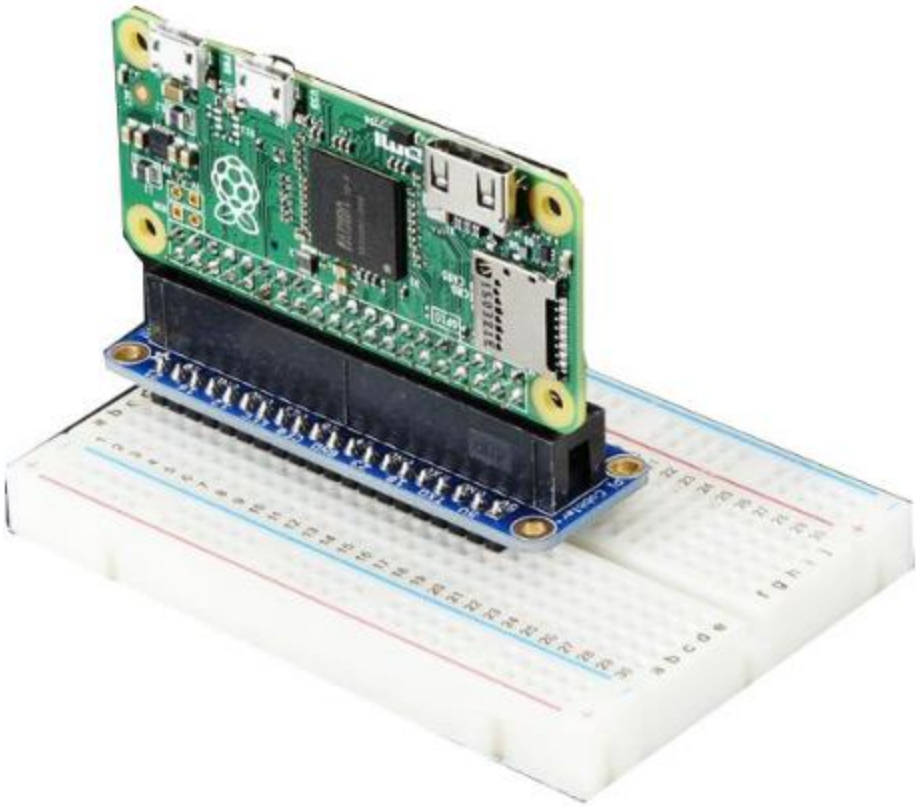



GPIO
MICRO SD CARD
USB
PWR IN

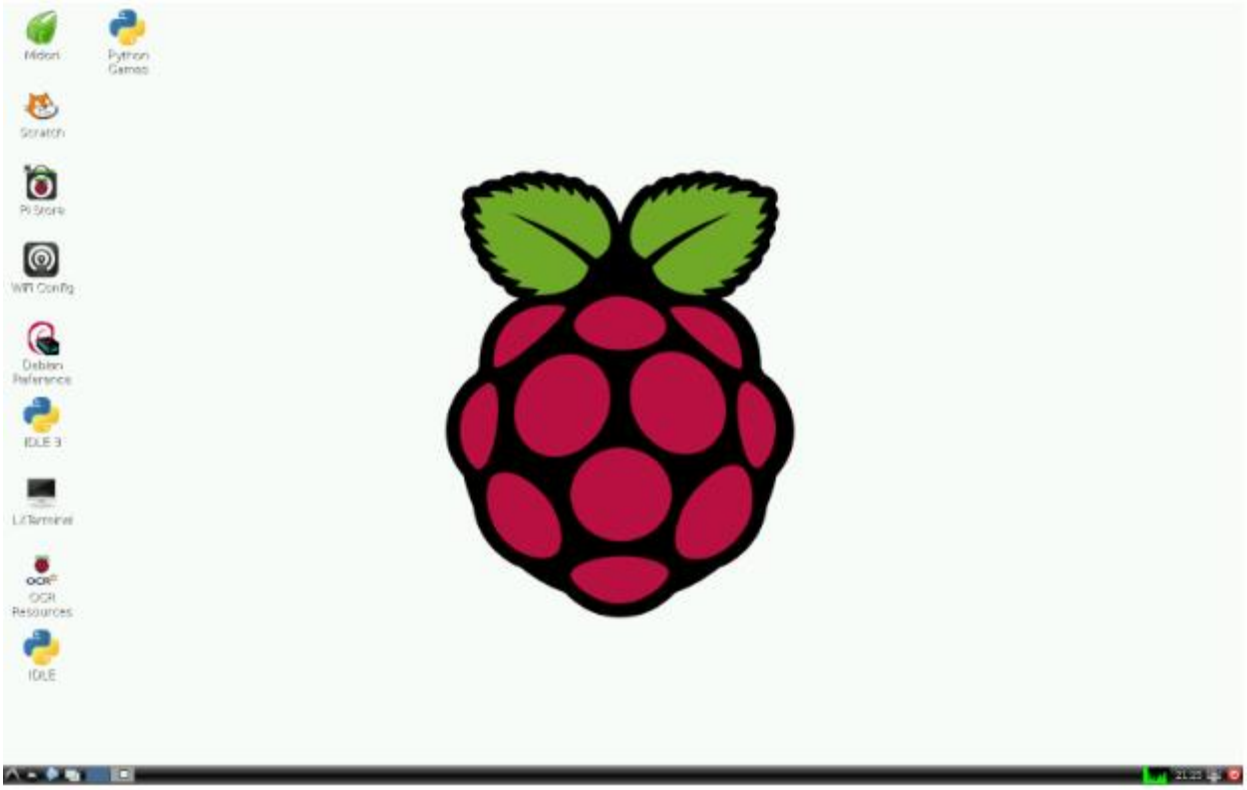
ELPIDA

MOFRED

manhattan

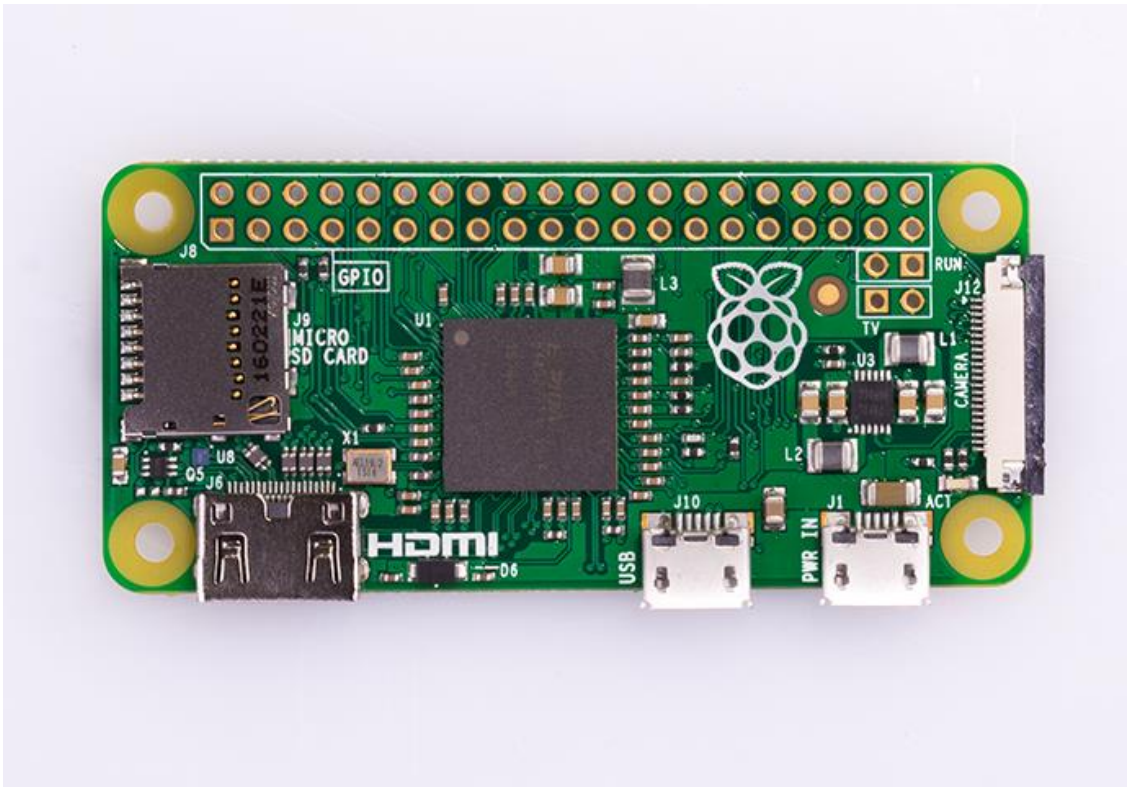


Kingston
Lock
micro SD
ADAPTER
Kingston
micro SD READER

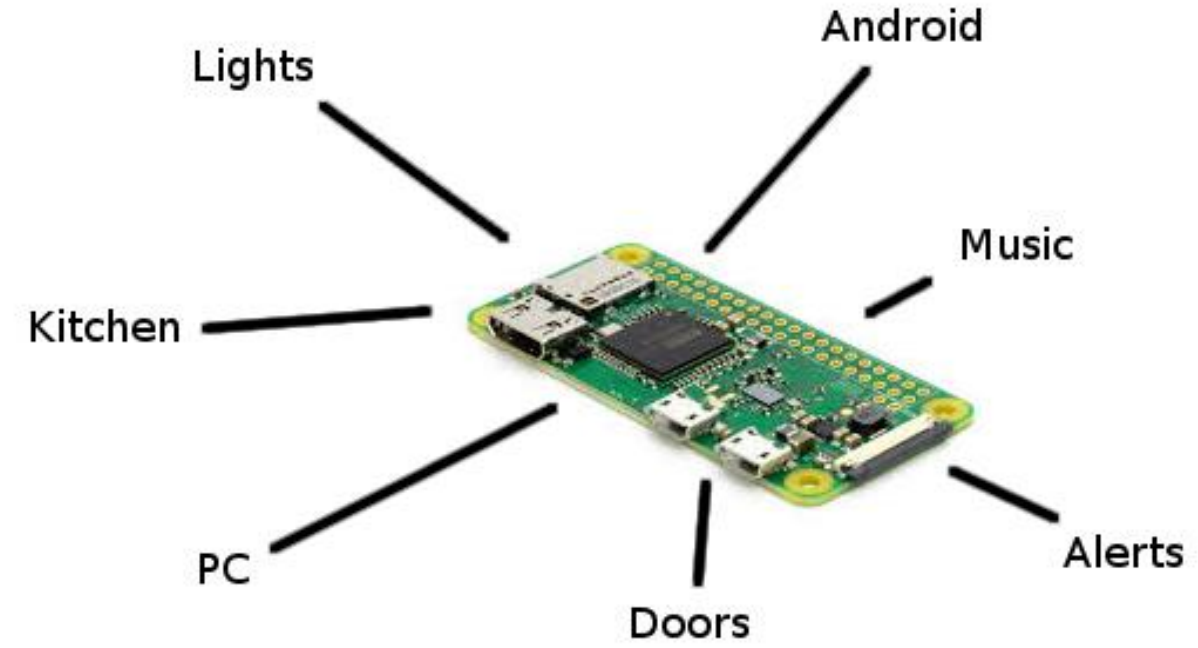

Midori
Python Games
Scratch
Pi Store
WiFi Config
Debian Reference
IDLE 3
LXTerminal
OCR Resources
IDLE

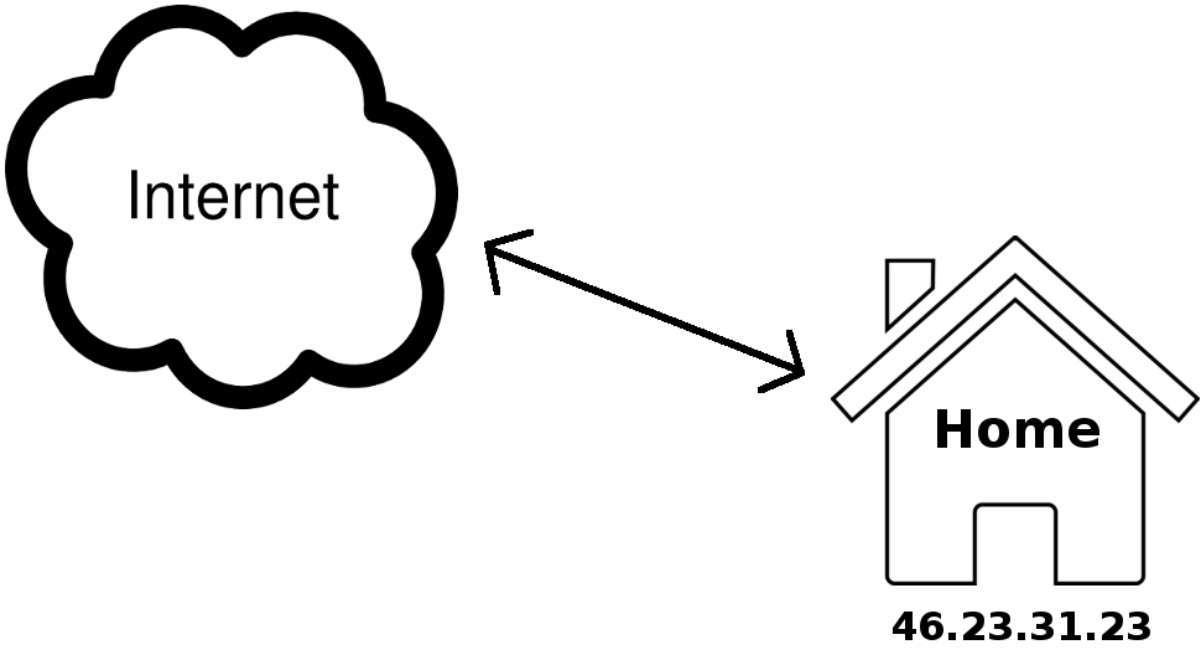
GPIO
Raspberry Pi 3 Model B V1.2
© Raspberry Pi 2015
DISPLAY
FCC ID: 2ABCB-RPI32
IC: 20953-RPI32
HDMI
CAMERA
PWR IN
USB

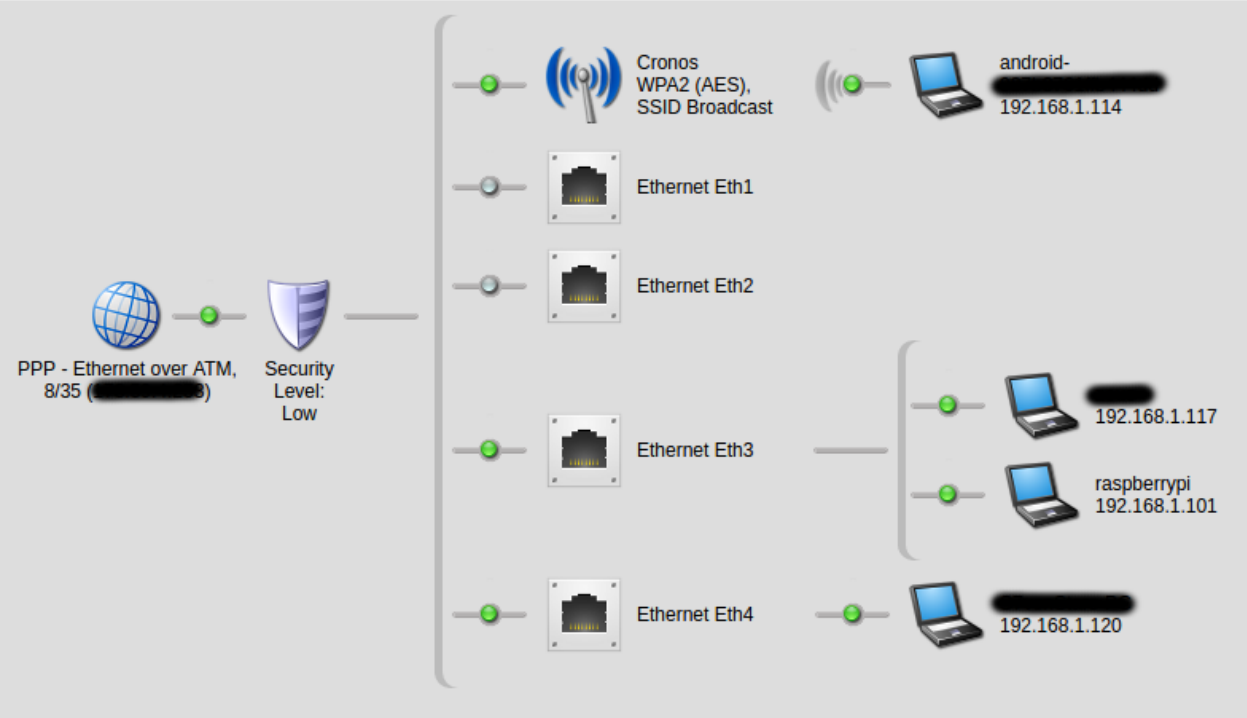
Manufactured in PRC
HUMIDITY
PRESSURE
ACCEL/GYRO/MAG
Raspberry Pi
Sense HAT
Version 1.0
(c) Raspberry Pi 2015


J8
GPIO
L3
RUN
J12
J9
MICRO
SD CARD
U1
TV
L1
U3
CAMERA
X1
U8
Q5
J6
L2
J10
J1
ACT
HDMI
D6
USB
PWR IN

Chapter 2: IoT and Networking



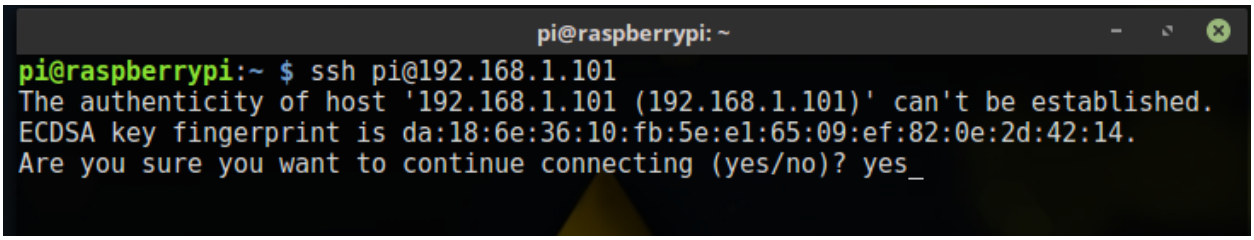


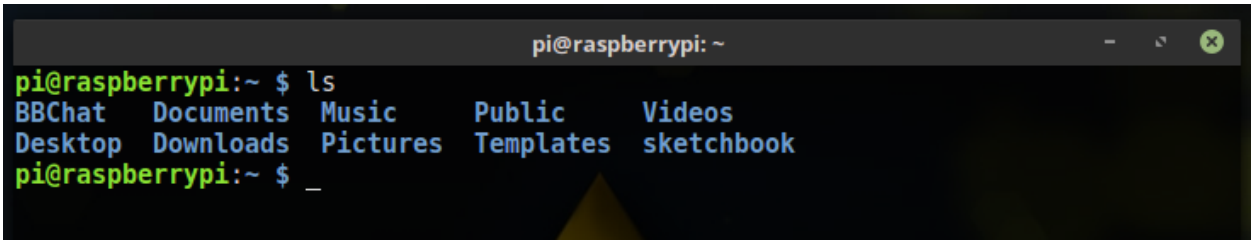


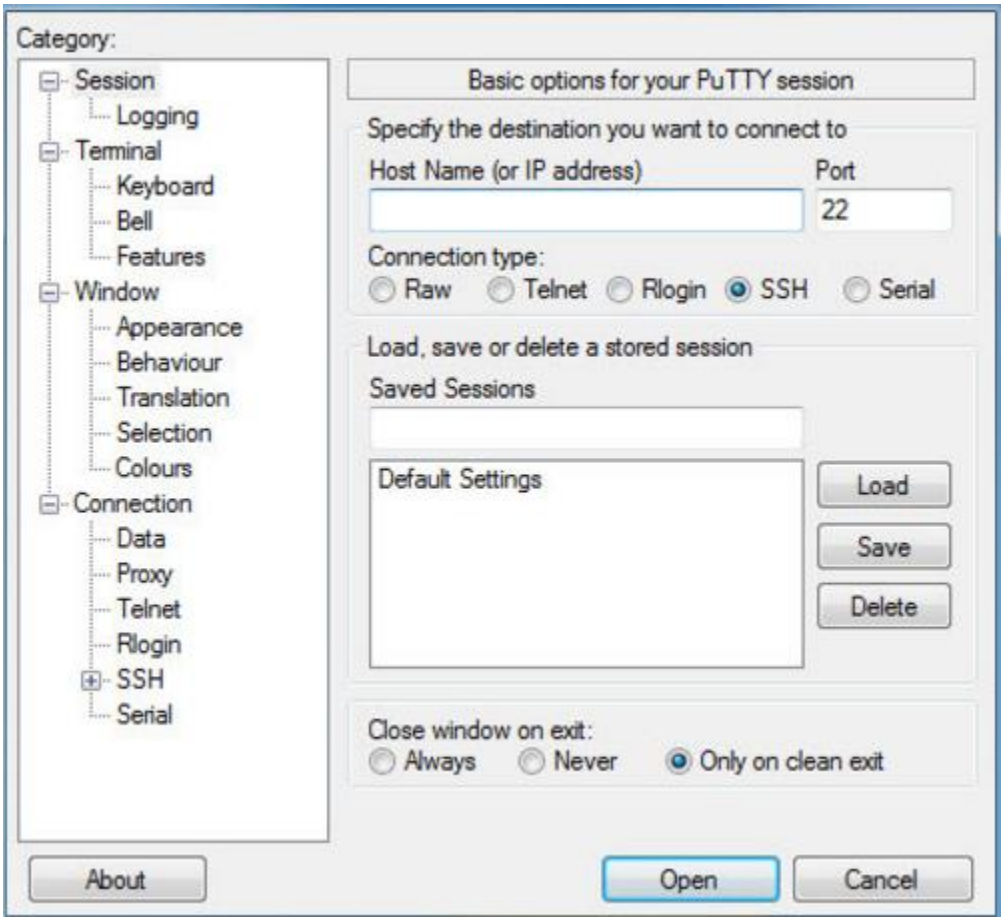
Description	Traffic Coming from	External Port		Internal Port	Local Host
Rasp Server	**Any Host PPP - Ethernet over ATM, 8/35**	**TCP 1770**	→	**2880**	**raspberrypi (192.168.1.101)**

```
pi@raspberrypi:~ $ ifconfig
eth0      Link encap:Ethernet  HWaddr b8:27:eb:ed:23:bb
          inet addr:192.168.1.101  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::fed5:3971:f6a8:61a6/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:483259 errors:0 dropped:40 overruns:0 frame:0
          TX packets:158544 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:135705578 (129.4 MiB)  TX bytes:19824896 (18.9 MiB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:625 errors:0 dropped:0 overruns:0 frame:0
          TX packets:625 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:56274 (54.9 KiB)  TX bytes:56274 (54.9 KiB)

wlan0     Link encap:Ethernet  HWaddr b8:27:eb:b8:76:ee
          inet6 addr: fe80::bc24:b350:3b5b:c186/64 Scope:Link
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:102707 errors:0 dropped:102707 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:36998689 (35.2 MiB)  TX bytes:0 (0.0 B)

pi@raspberrypi:~ $ ping -c 3 www.google.com
PING www.google.com (216.58.208.36) 56(84) bytes of data.
64 bytes from fra15s12-in-f36.1e100.net (216.58.208.36): icmp_seq=1 ttl=54 time=135 ms
64 bytes from fra15s12-in-f36.1e100.net (216.58.208.36): icmp_seq=3 ttl=54 time=164 ms

--- www.google.com ping statistics ---
3 packets transmitted, 2 received, 33% packet loss, time 2005ms
rtt min/avg/max/mdev = 135.914/150.445/164.977/14.536 ms
pi@raspberrypi:~ $ _
```

```
[redacted] ~ $ python -m SimpleHTTPServer 8000
Serving HTTP on 0.0.0.0 port 8000 ...
_
```




pi@raspberrypi: ~
pi@raspberrypi:~ $ ls
BBChat Documents Music Public Videos
Desktop Downloads Pictures Templates sketchbook
pi@raspberrypi:~ $ _


Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Serial
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
22
Connection type:
Raw
Telnet
Rlogin
SSH
Serial
Load, save or delete a stored session
Saved Sessions
Default Settings
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Open
Cancel

File Edit View Transfer Server Bookmarks Help

Host: sftp://192.168.1.1 Username: pi Password: ••••••••• Port: Quickconnect

Status: Connecting to 192.168.1.101...
Status: Connected to 192.168.1.101
Status: Retrieving directory listing...
Status: Listing directory /home/pi
Status: Directory listing of "/home/pi" successful

Local site: /home/mark/Desktop/

/
bin
boot

Filename	Filesize	Filetype
c.png	33,4 KB	png-file
d.png	237,0 KB	png-file
data.tsv~	21,3 KB	tsv~-file
download.jpg	7,6 KB	jpg-file
filezilla-settings.png	18,4 KB	png-file
index.html~	1,9 KB	html~-file
internet-cloud-clip-art-a...	29,2 KB	png-file
internet.png	47,1 KB	png-file
login.png	10,0 KB	png-file
marka.py~	803 B	py~-file
network.png	68,0 KB	png-file
puttyimg.png	161,1 KB	png-file
router_interface.png	94,4 KB	png-file
teester.py~	832 B	py~-file
test.py~	767 B	py~-file
url.html	592 B	html-file
url.png	4,6 KB	png-file
αοδ.png	121,2 KB	png-file

28 files and 5 directories. Total size: 1,3 MB

Remote site: /home/pi

BBChat
Desktop
Documents
Downloads
Music
Pictures
Public
Templates
Videos
sketchbook

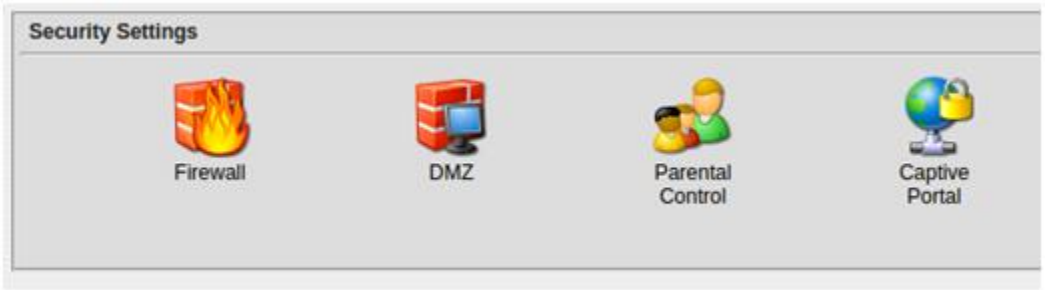
Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
.dbus		Directory	05/27/2016 02...	drwx------	pi pi
.fontconfig		Directory	05/27/2016 02...	drwxr-xr-x	pi pi
.gstreamer-0.10		Directory	05/27/2016 02...	drwxr-xr-x	pi pi
.java		Directory	04/17/2017 03...	drwxr-xr-x	pi pi
.local		Directory	05/27/2016 02...	drwxr-xr-x	pi pi
.oracle_jre_usage		Directory	04/17/2017 03...	drwxr-xr-x	pi pi
.ssh		Directory	04/18/2017 07...	drwxr-xr-x	pi pi
.themes		Directory	05/27/2016 02...	drwxr-xr-x	pi pi
.thumbnails		Directory	04/17/2017 03...	drwx------	pi pi
BBChat		Directory	04/23/2017 08...	drwxr-xr-x	pi pi
Desktop		Directory	04/22/2017 07...	drwxr-xr-x	pi pi
Documents		Directory	05/27/2016 02...	drwxr-xr-x	pi pi

12 files and 23 directories. Total size: 21,8 KB

Server/Local file	Direction	Remote file	Size	Priority	Status

Queued files | Failed transfers | Successful transfers

```
[redacted] ~/Desktop $ scp url.png pi@192.168.1.102:/home/pi/
pi@192.168.1.102's password:
url.png                                       100% 4528     4.4KB/s   00:00
```



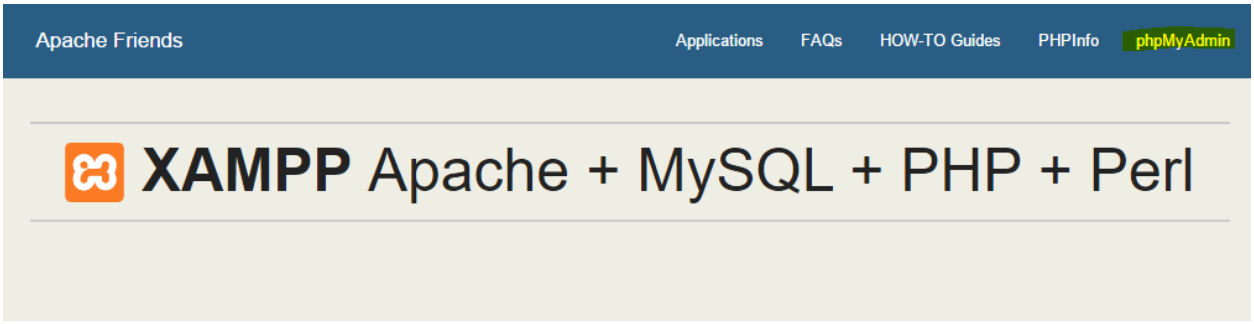
Enabled:
Yes
No
Security Level:
High
Last Change:
Time: 16:01:19
Date: 11/02/2014

Chapter 3: Chatbot

```
mark@zeus ~ $ sudo /opt/lampp/lampp start
[sudo] password for mark:
Starting XAMPP for Linux 7.0.15-0...
XAMPP: Starting Apache...already running.
XAMPP: Starting MySQL...already running.
XAMPP: Starting ProFTPD...already running.
mark@zeus ~ $ _
```

```
mark@zeus ~ $ sudo /opt/lampp/lampp stop
Stopping XAMPP for Linux 7.0.15-0...
XAMPP: Stopping Apache...ok.
XAMPP: Stopping MySQL...ok.
XAMPP: Stopping ProFTPD...ok.
mark@zeus ~ $ _
```

```
mark@zeus ~ $ sudo /opt/lampp/lampp restart
Restarting XAMPP for Linux 7.0.15-0...
XAMPP: Stopping Apache...not running.
XAMPP: Stopping MySQL...not running.
XAMPP: Stopping ProFTPD...not running.
XAMPP: Starting Apache...ok.
XAMPP: Starting MySQL...ok.
XAMPP: Starting ProFTPD...ok.
mark@zeus ~ $ _
```



Welcome to XAMPP for Windows 5.5.28

Index of /chatUI

Name	Last modified	Size	Description
Parent Directory		-	

This is my website

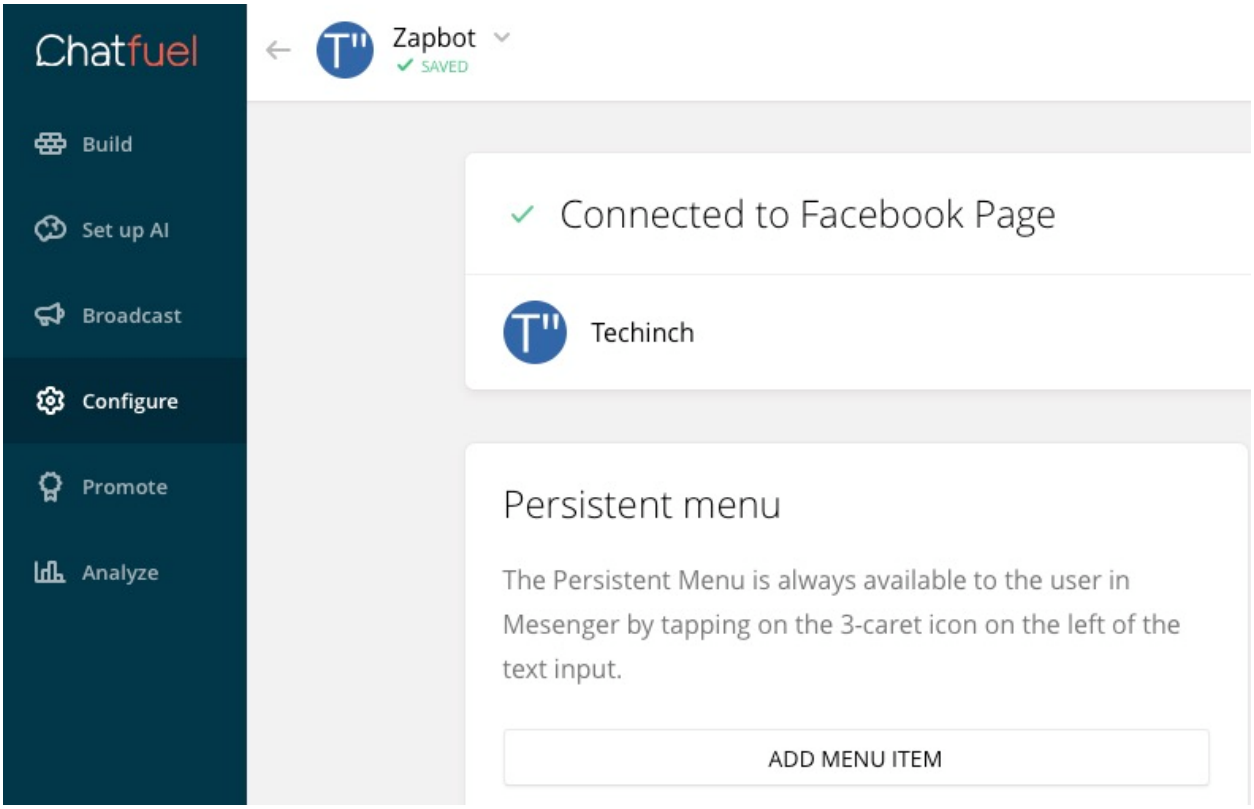
Pi Zero W ChatBot v1.0

What time is it?

Submit

ChatBot answer:

The time is: 11:43:37 pm


Chatfuel
Zapbot
SAVED
Build
Set up AI
Broadcast
Configure
Promote
Analyze
Connected to Facebook Page
Techinch
Persistent menu
The Persistent Menu is always available to the user in Mesenger by tapping on the 3-caret icon on the left of the text input.
ADD MENU ITEM

Choose a Template

Help ✕

- Blank Flow
- Book a Room
- Book a Table
- Book a Service
- Buy Tickets
- Apply or Sign Up
- FAQ
- Message a Human
- Small Talk
- Welcome & Help
- Find Location
- News Feed

Cleverbot

Hello cleverbot.

I'm not a bot but I am clever.

think about it | think for me | thoughts so far

NOTE: Cleverbot learns from people - things said may seem inappropriate - use at your own risk

PARENTS: Visitors never talk to a human - it knows many topics - use only with oversight

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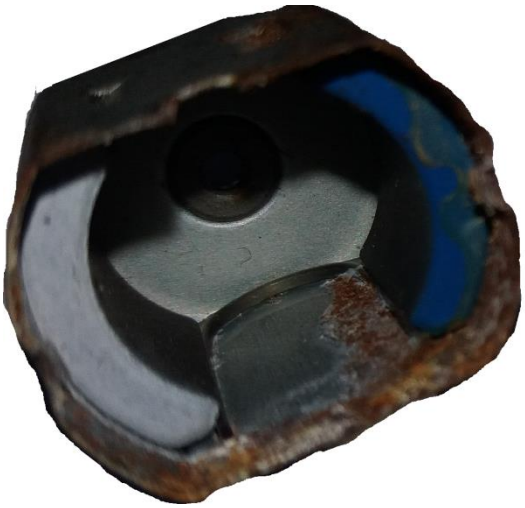
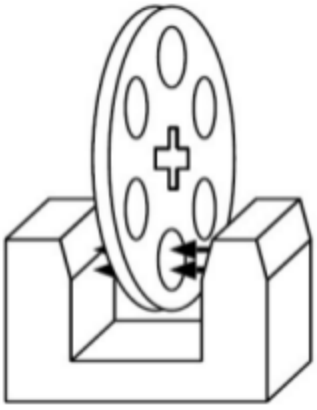
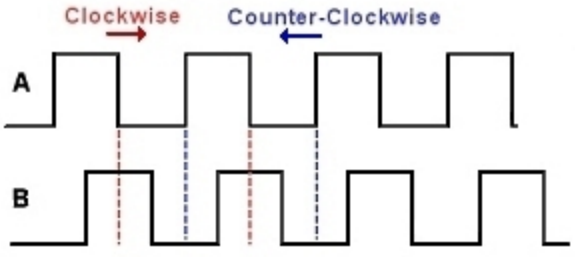
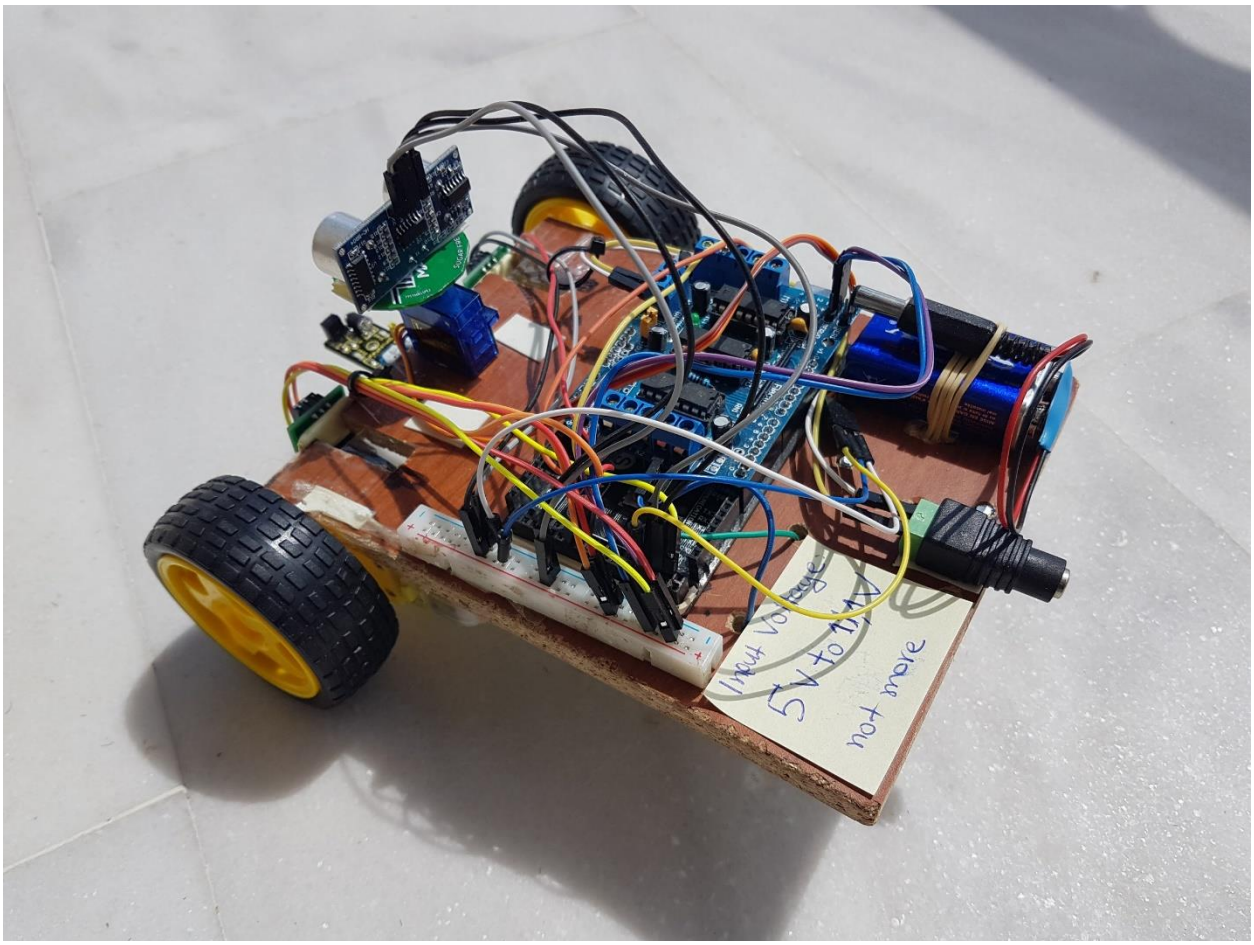
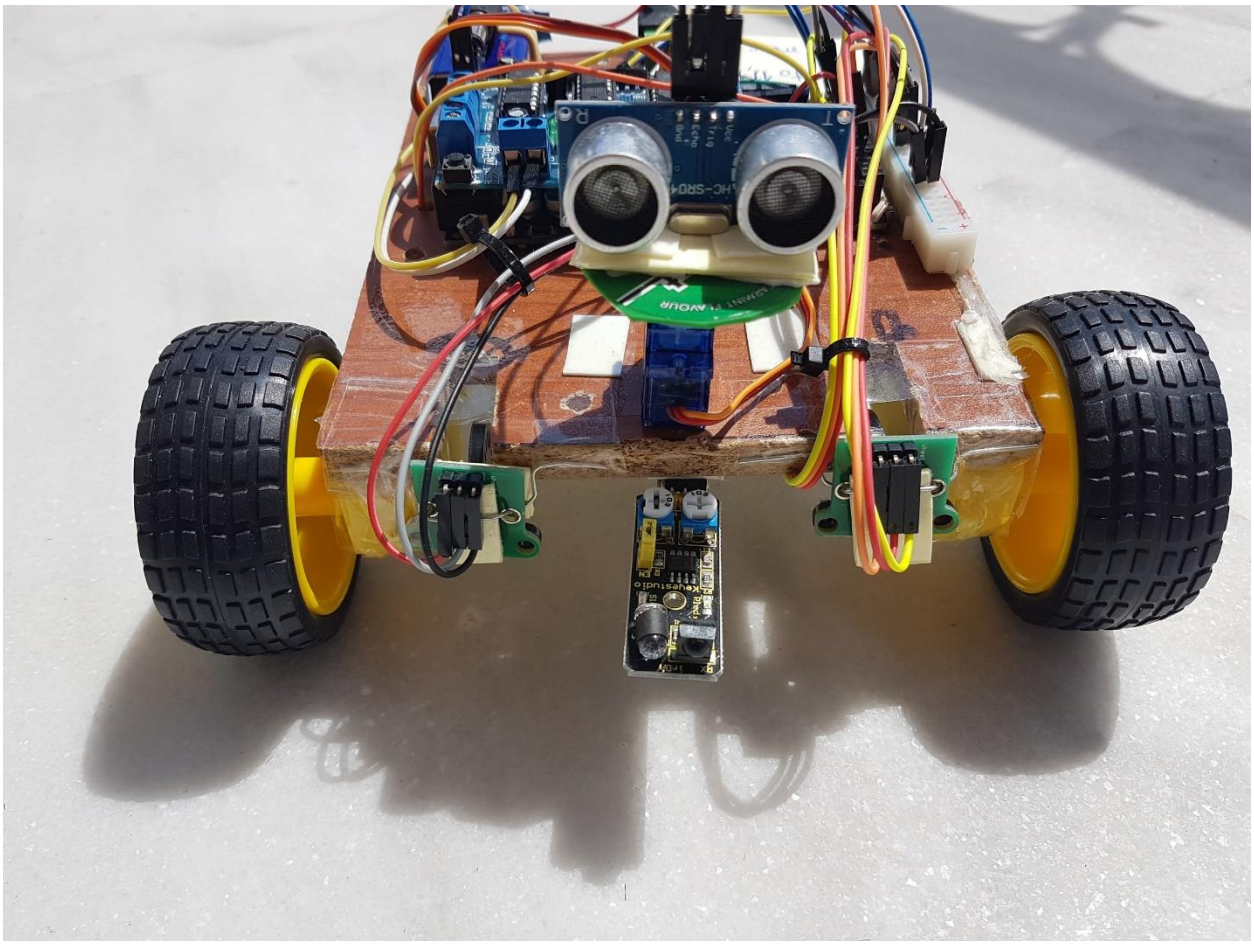
Chapter 4: Mobile Robot

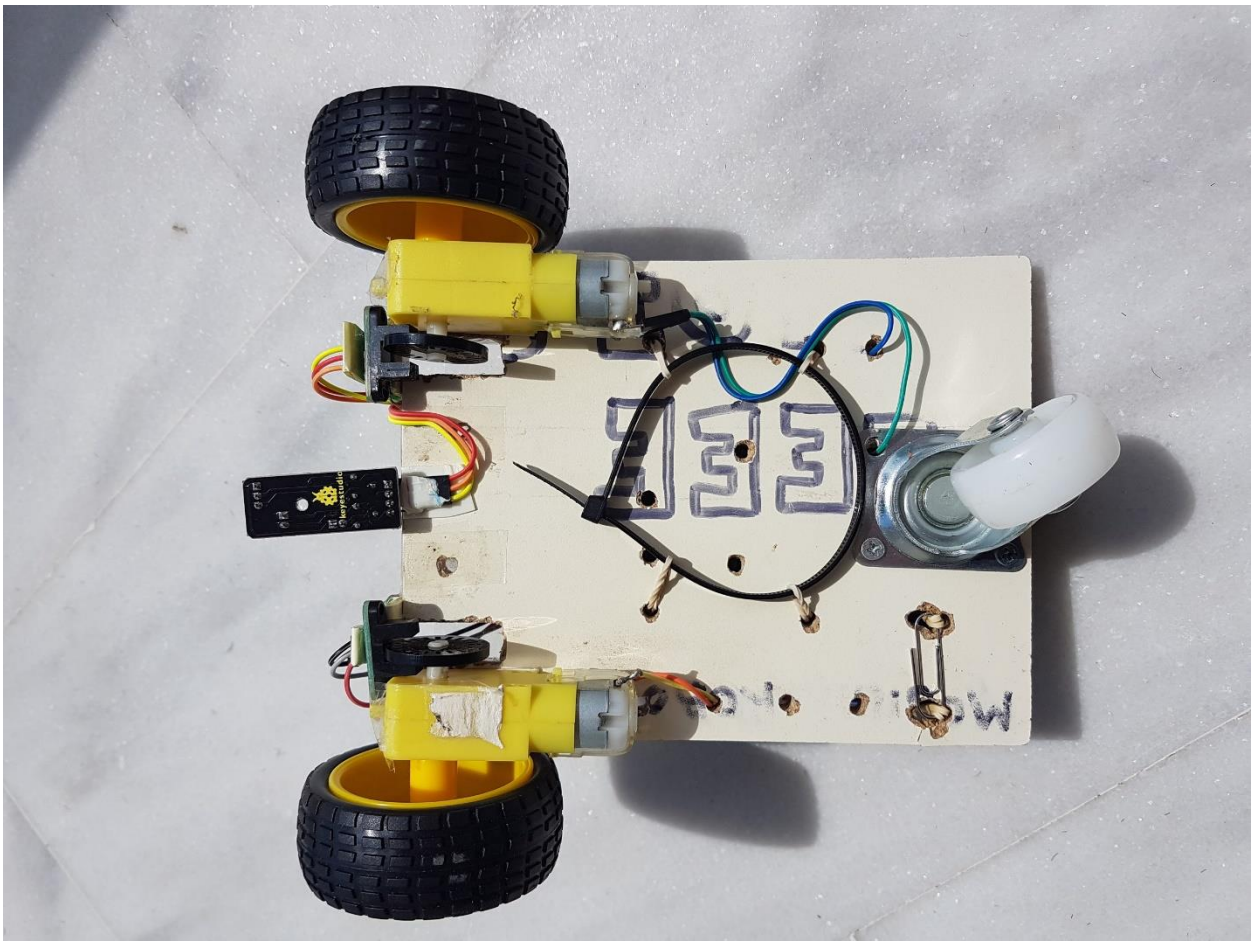


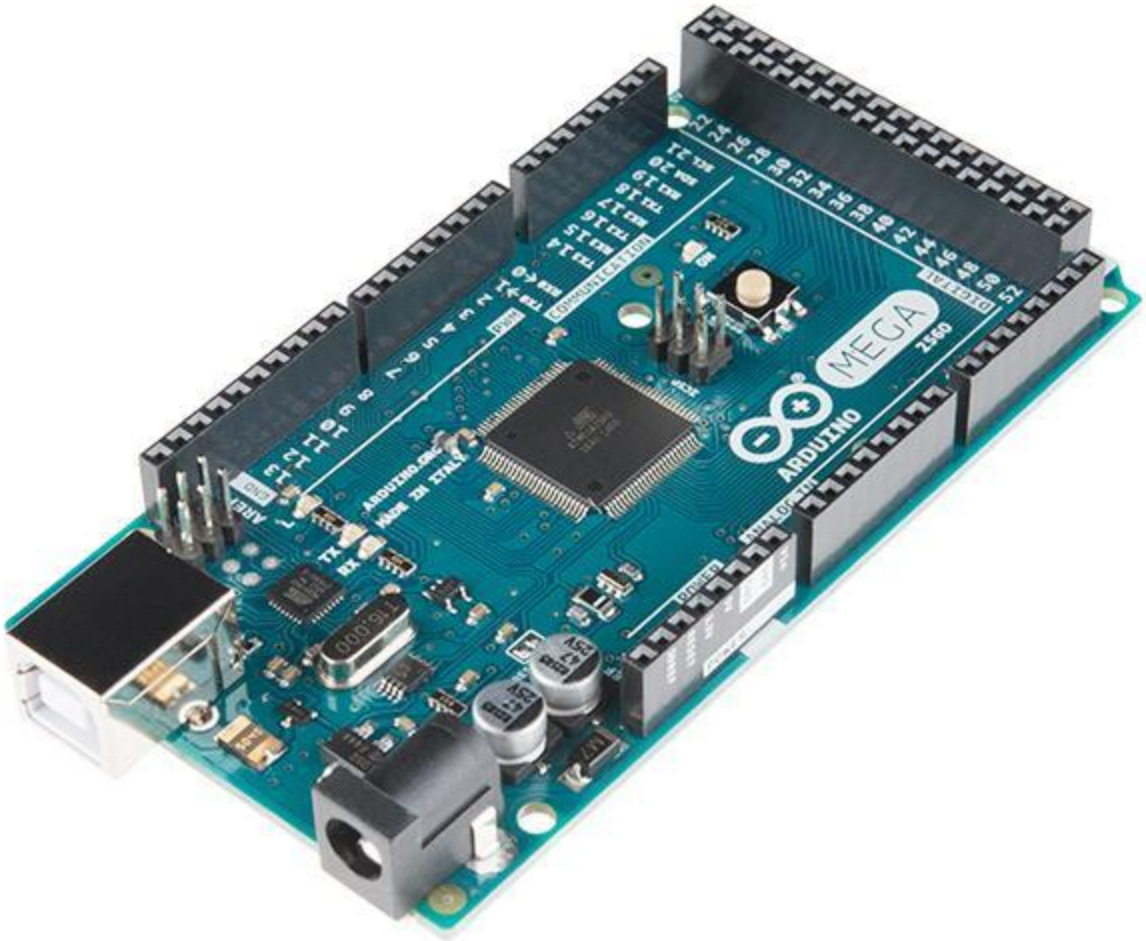


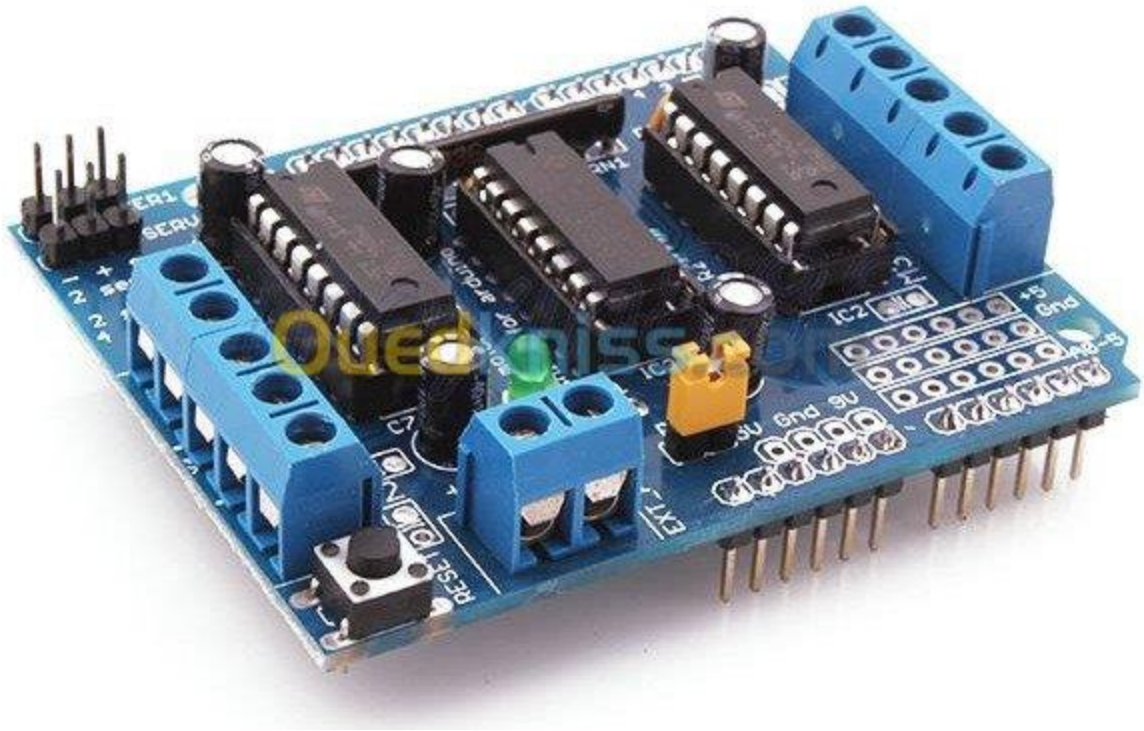

Clockwise
Counter-Clockwise
A
B


Input voltage
5V to 12V
not more


HC-SR04
Keyestudio

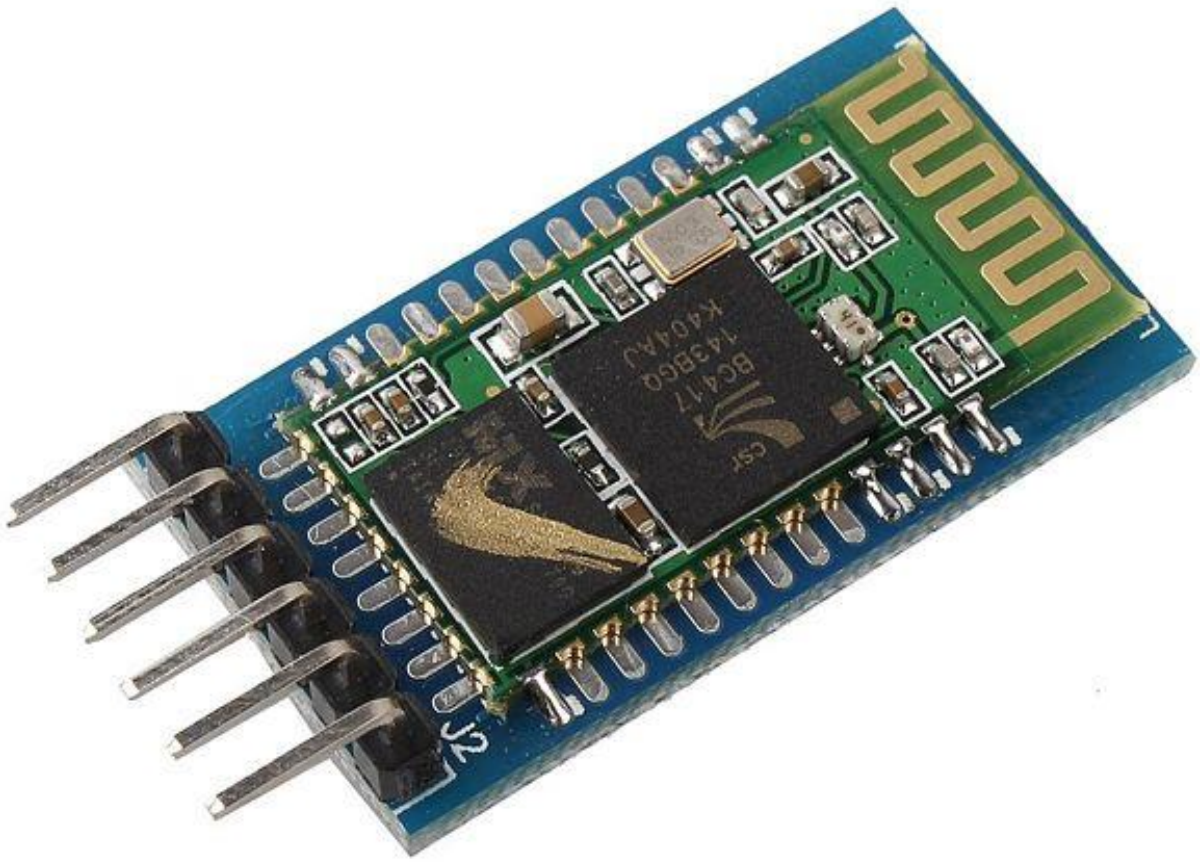


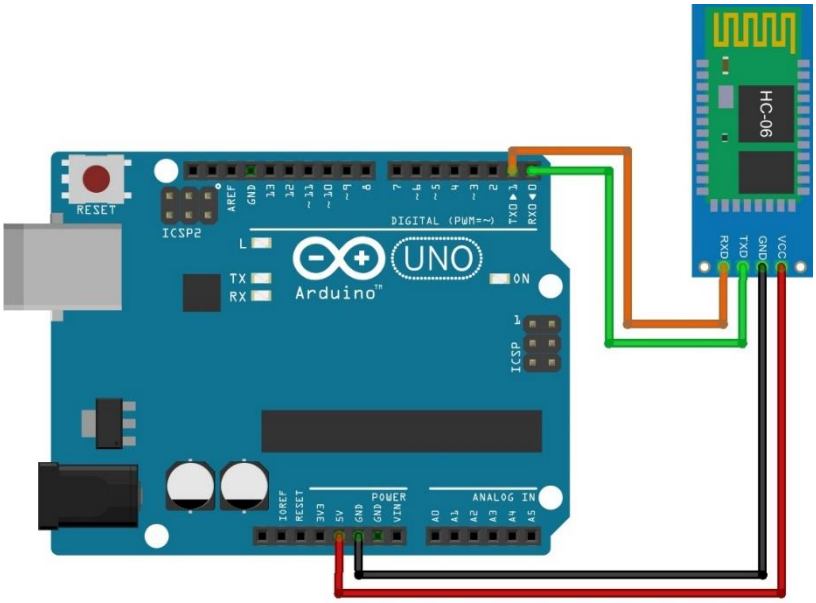

MEGA
2560
ARDUINO

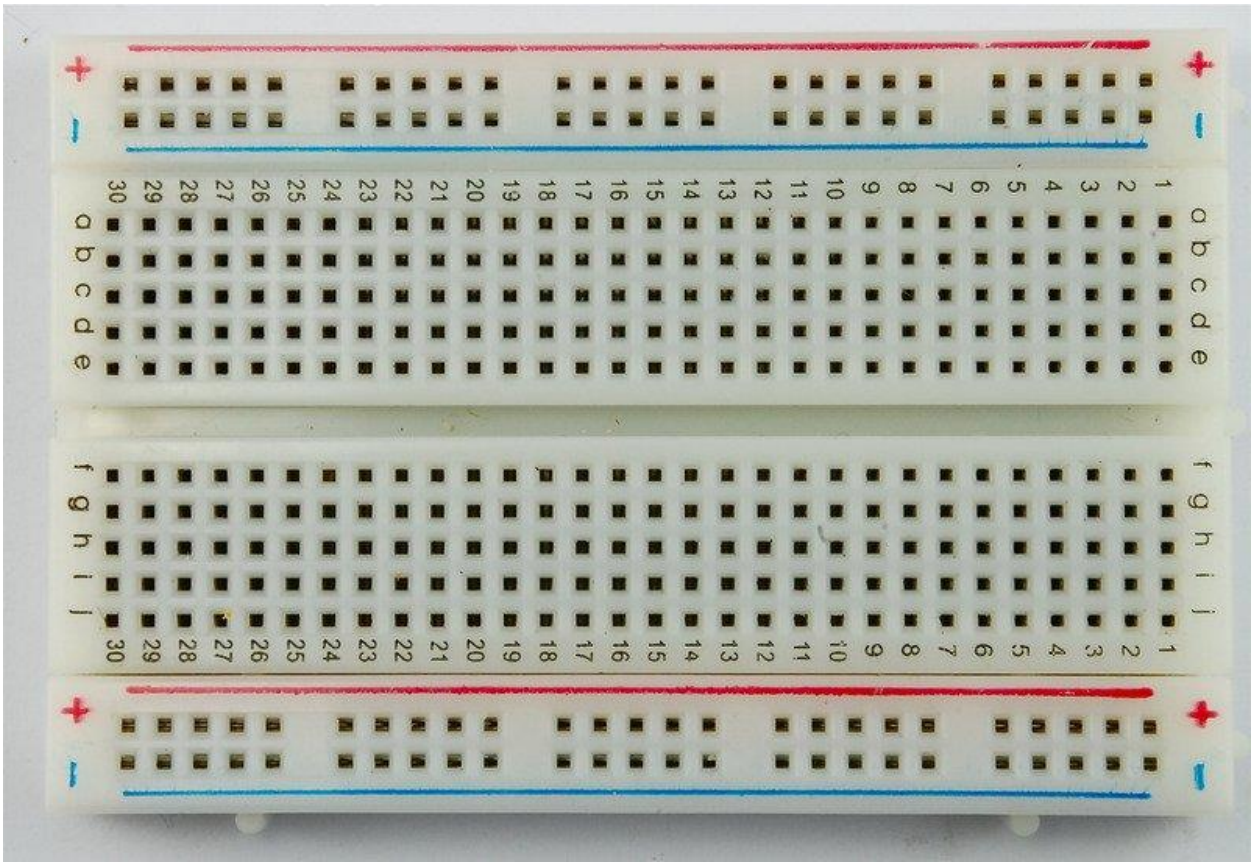

+5
Gnd
9V
Gnd
9V
RESET

TOWER PRO
Micro 9g
SG90

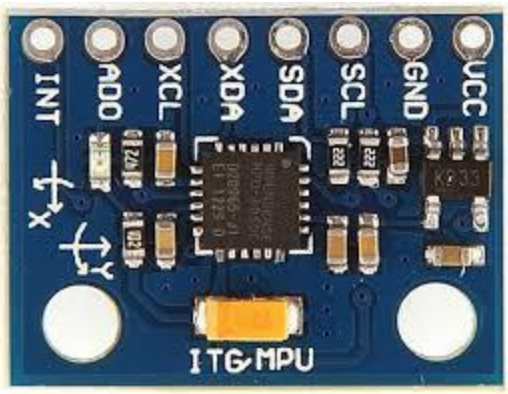
Y1
-SR04
Echo
GND
J1
T

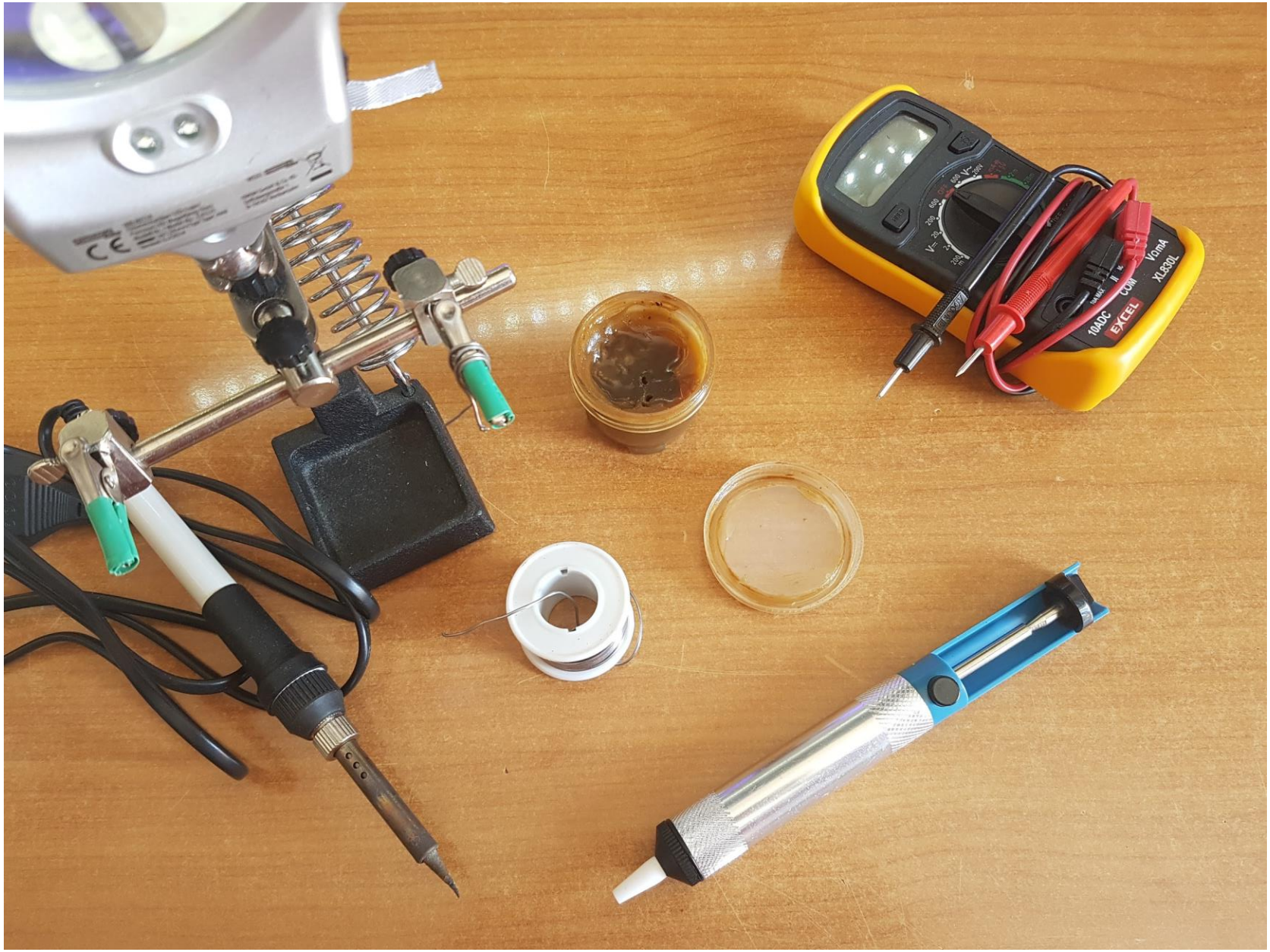

BC417
143BG0
K404AJ
CSR
J2

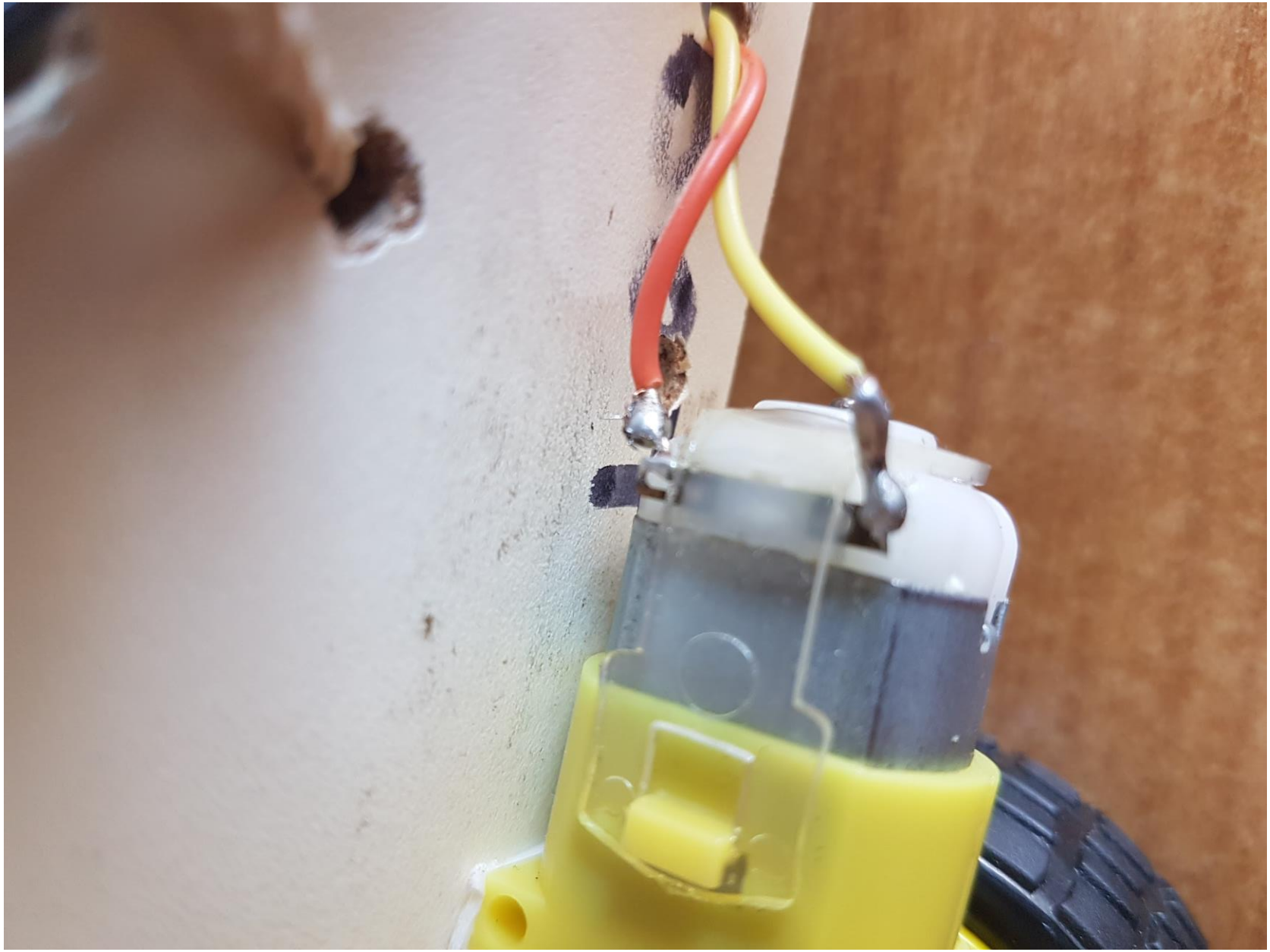

HC-06
RXD
TXD
GND
VCC
RESET
ICSP2
DIGITAL (PWM=~)
UNO
Arduino
TX
RX
ON
ICSP
POWER
ANALOG IN

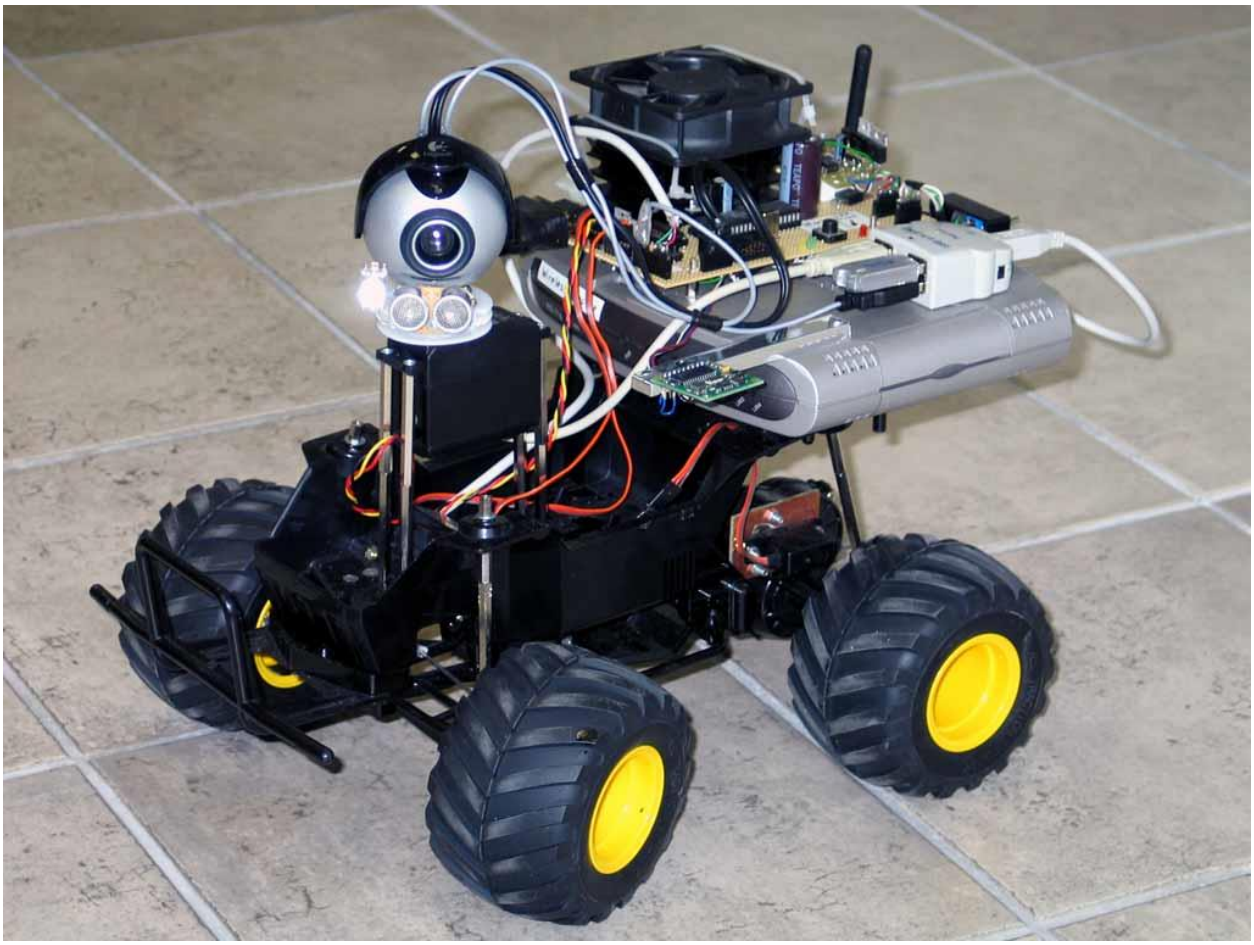


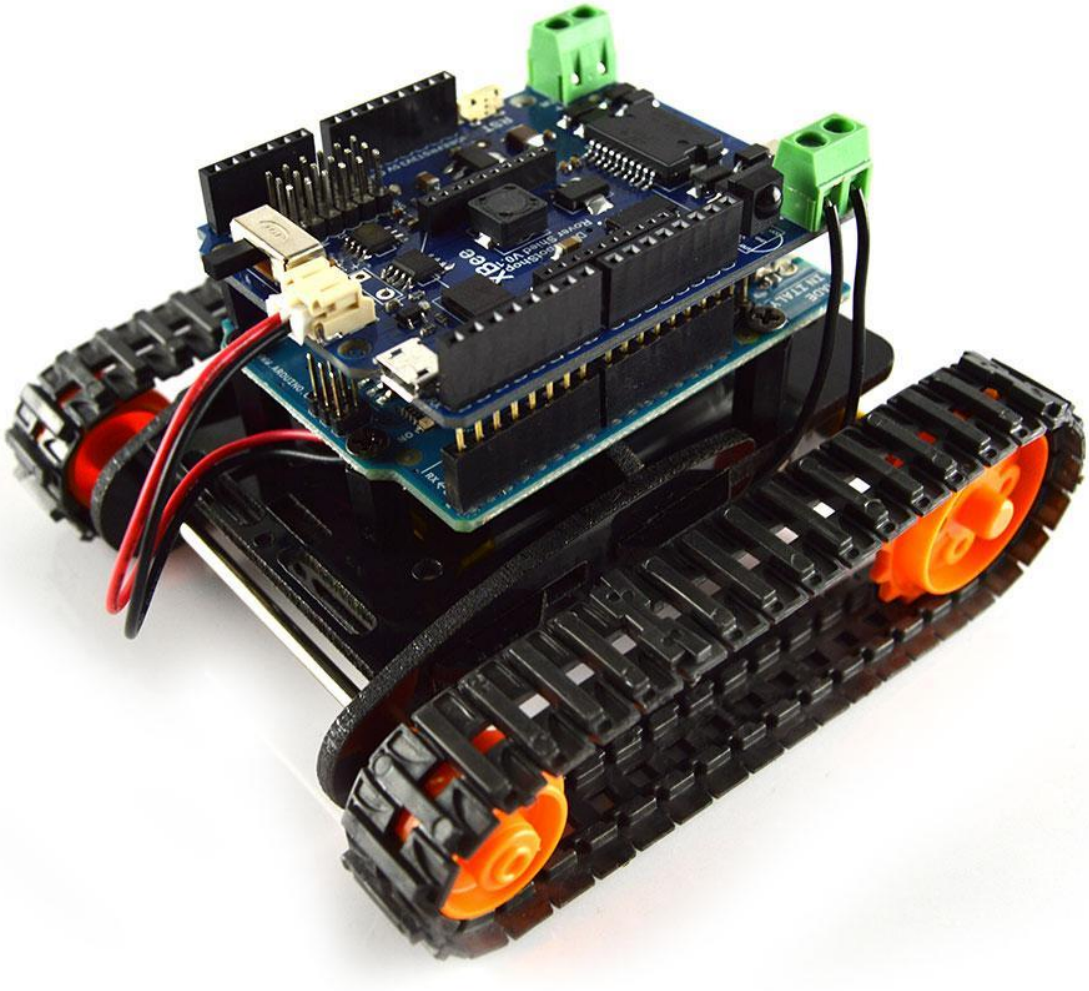
5200
mAh
High Discharge Lithium Polymer Battery
LU
Lumenier
35C DISCHARGE
70C BURST

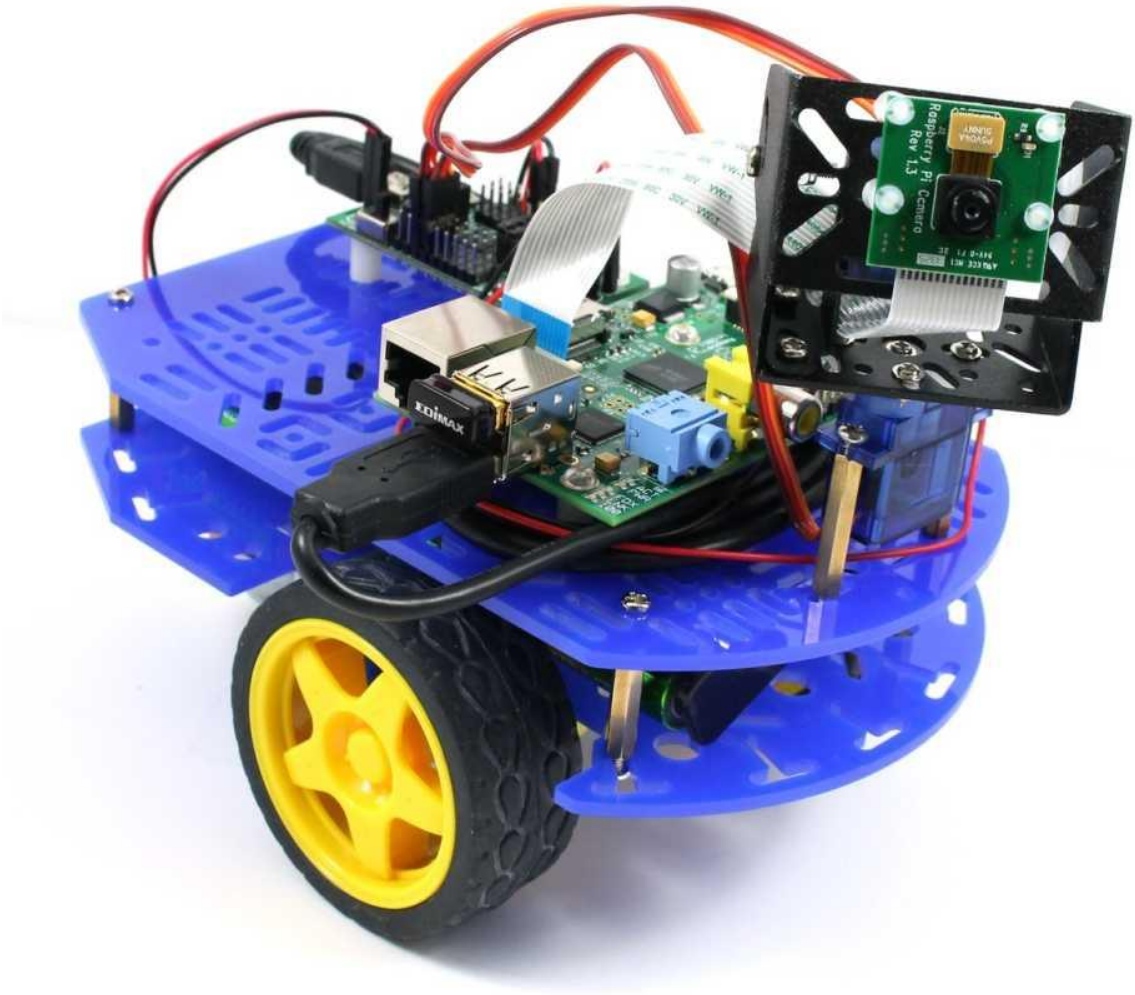

INT
ADO
XCL
XDA
SDA
SCL
GND
VCC
ITG-MPU


EXCEL
XL830L
10ADC
COM
VΩmA





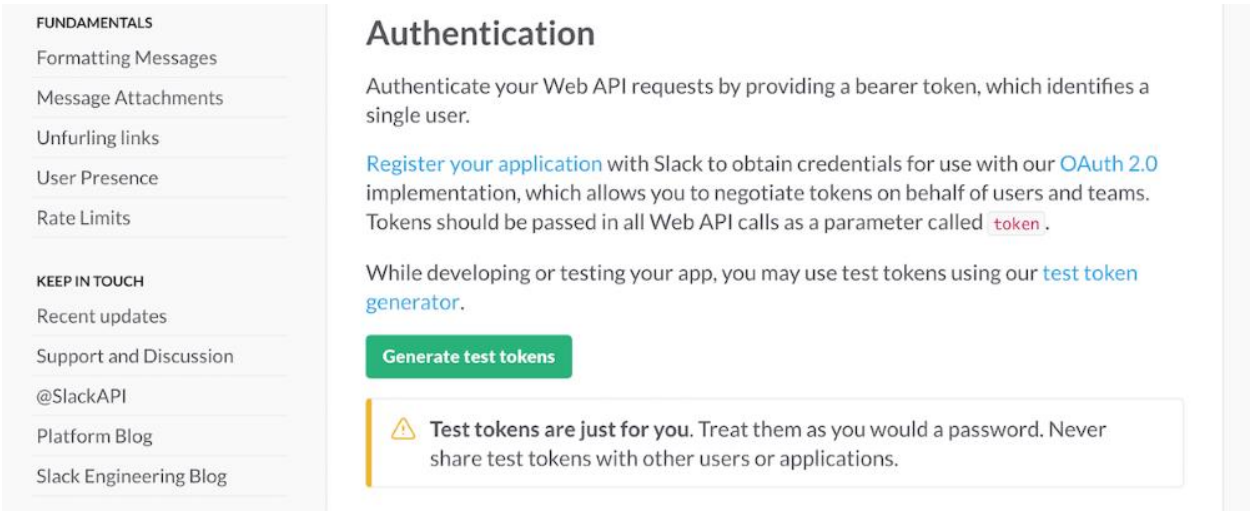


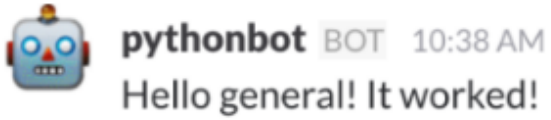

Raspberry Pi Camera
Rev 1.3
EDIMAX

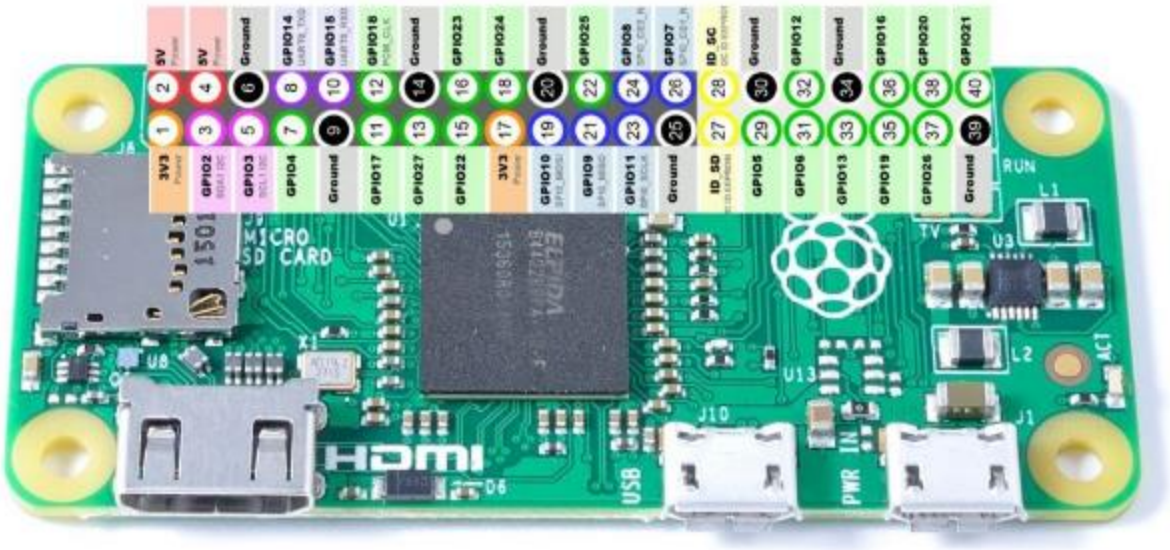
Chapter 5: Home Bot

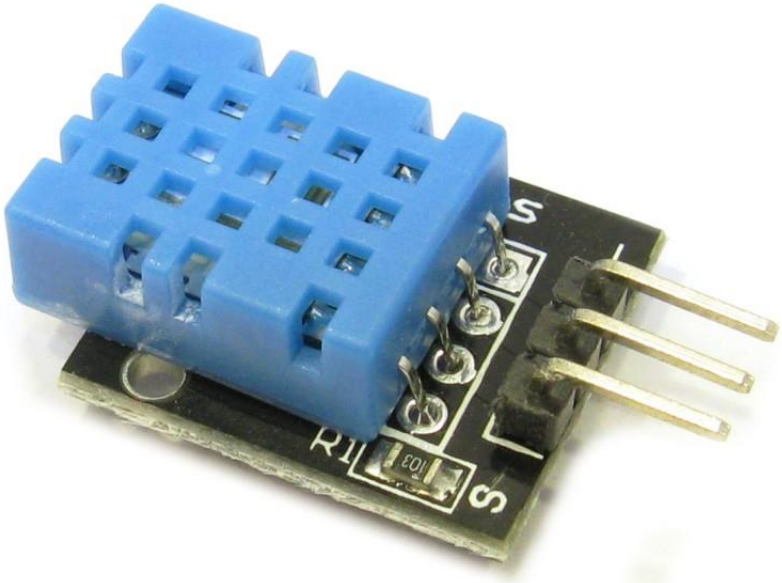
Directory listing for /

- .adobe/
- .android/
- .AndroidStudio2.3/
- .aptitude/
- .arduino/
- .arduino-create/
- .arduino15/
- .atom/
- .audacity-data/
- .bash_history
- .bash_logout
- .bashrc
- .bashrc-anaconda2.bak
- .cache/
- .cassandra/

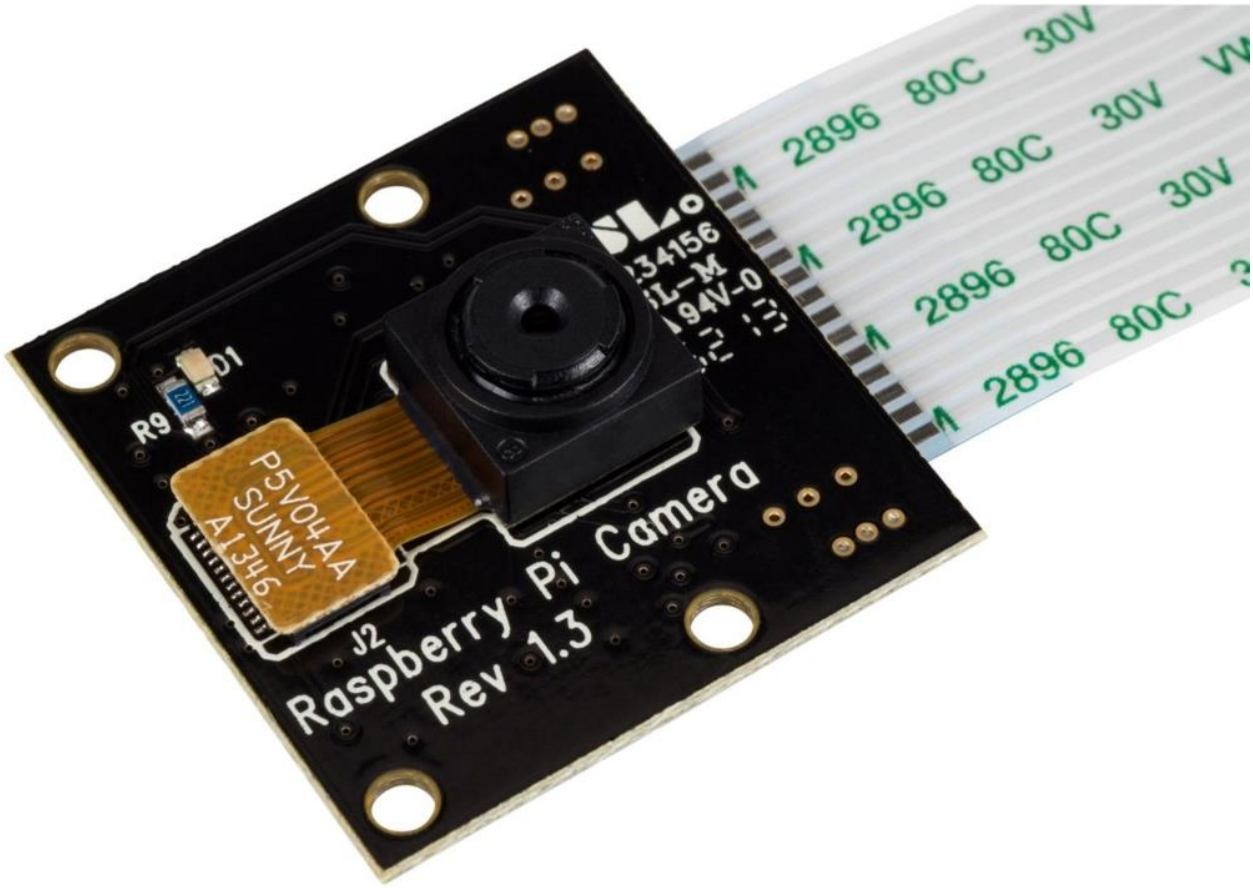


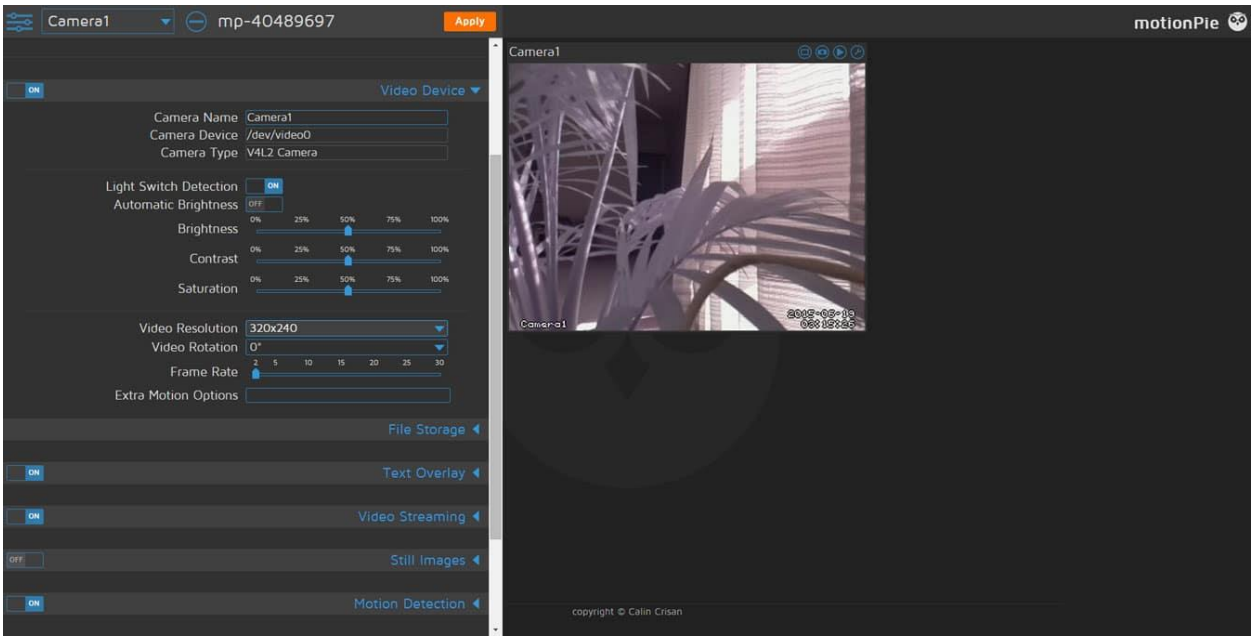


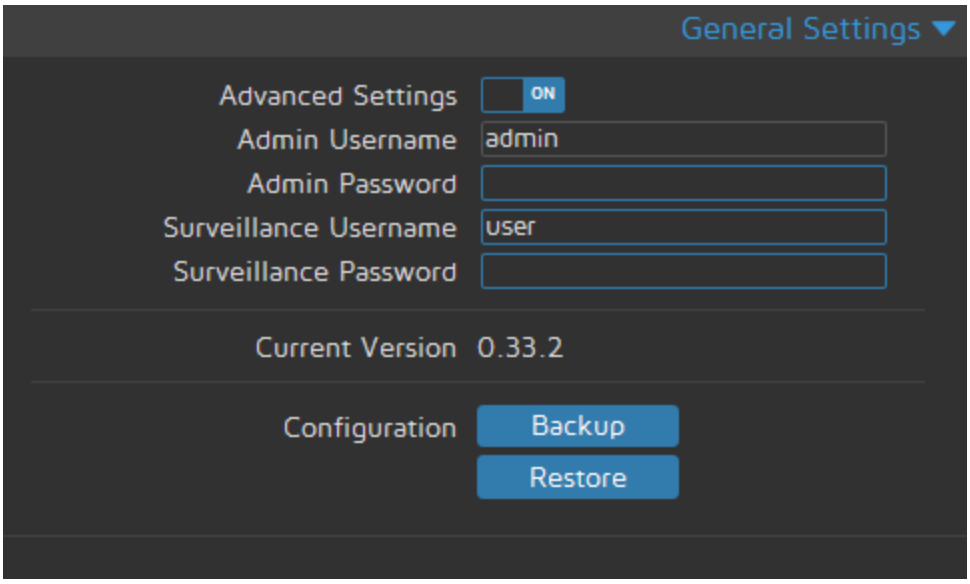

MICRO
SD CARD
HDMI
USB
PWR IN
RUN
TV

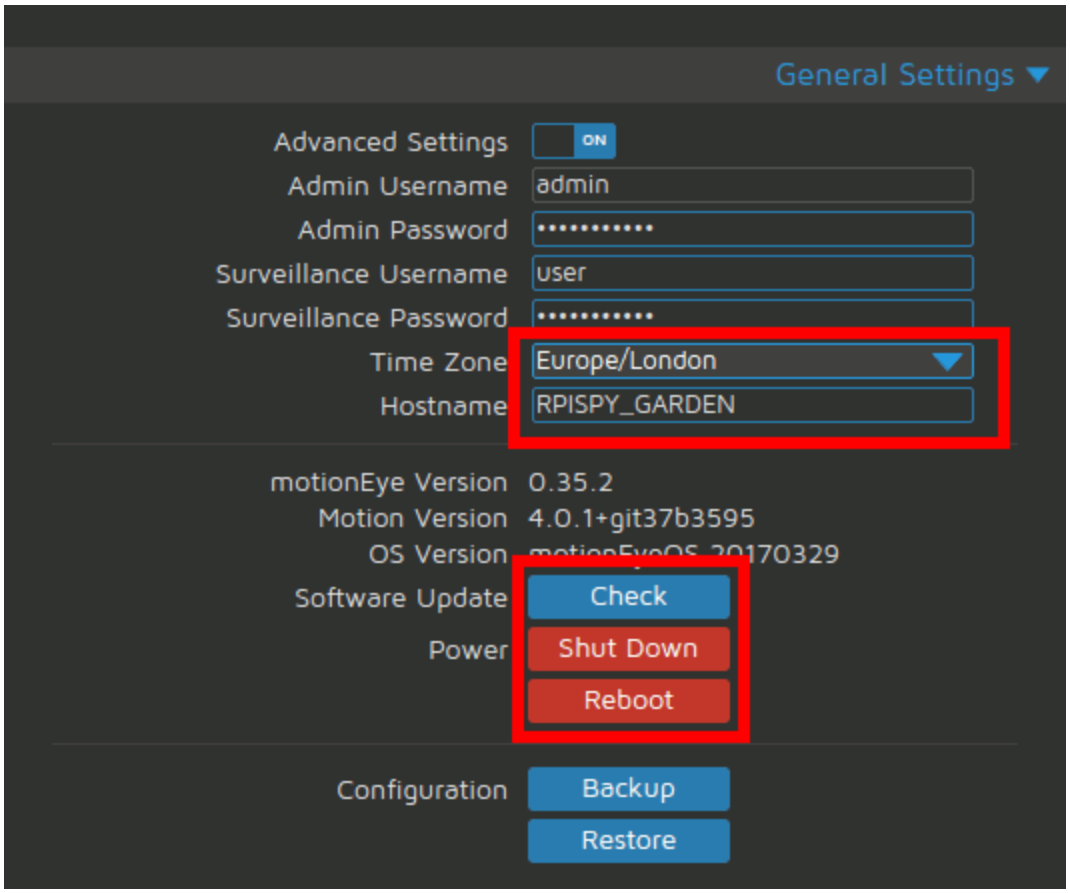


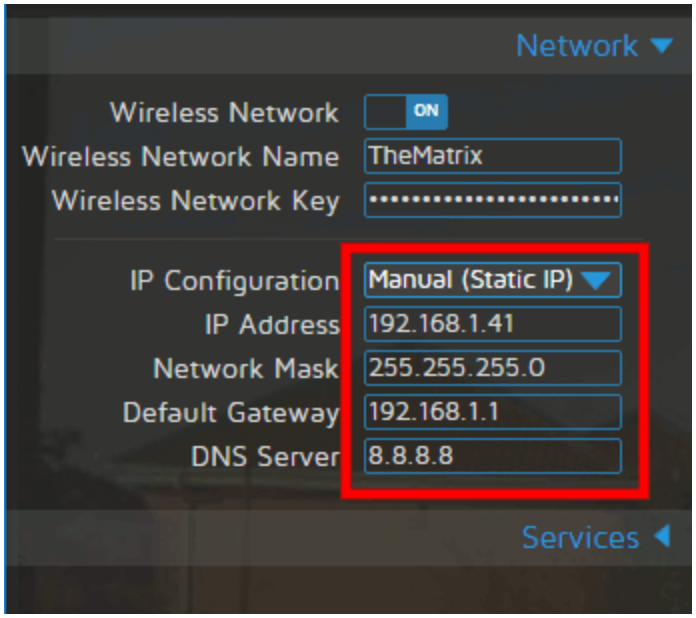
Chapter 6: Security Camera

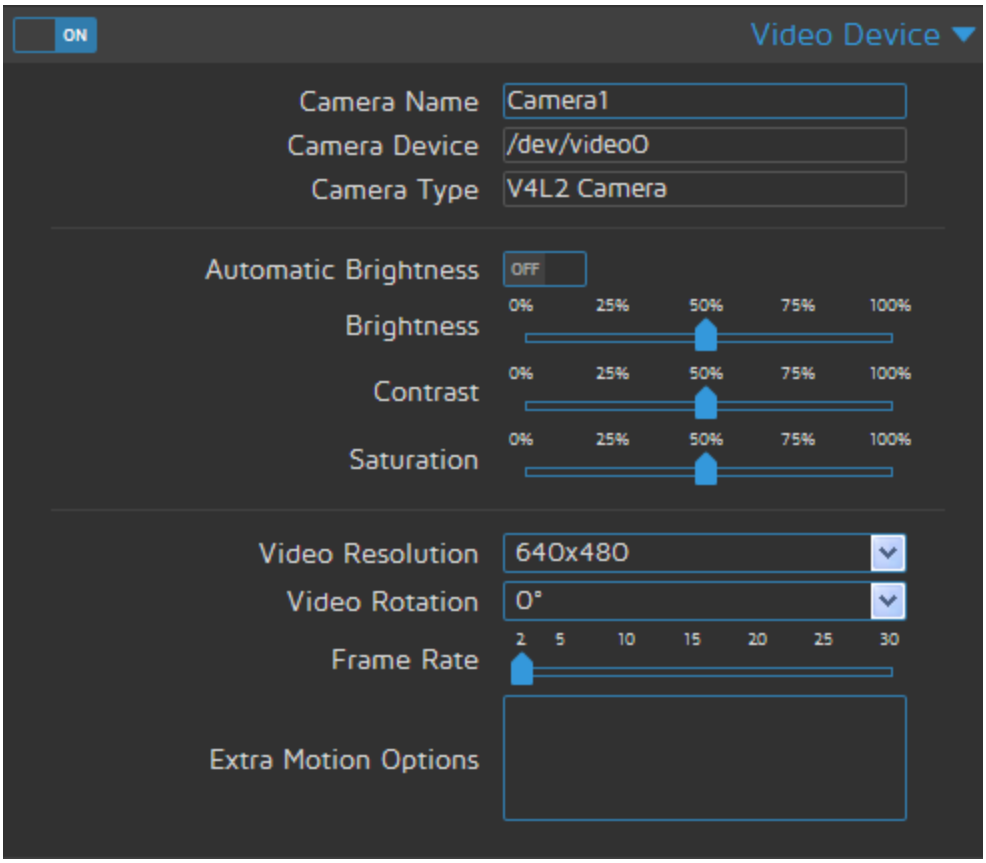

2896 80C 30V
2896 80C 30V
2896 80C 30V
2896 80C
R9
D1
P5V044A
SUNNY
A1346
J2
Raspberry Pi Camera
Rev 1.3

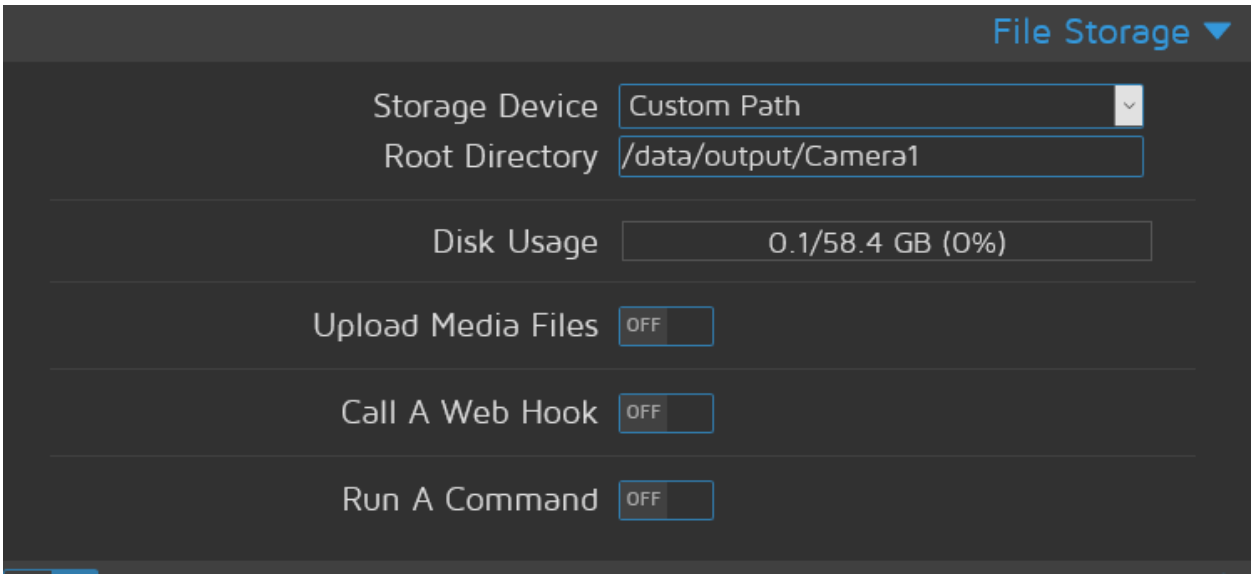

Camera1
mp-40489697
Apply
motionPie
Video Device
Camera Name
Camera1
Camera Device
/dev/video0
Camera Type
V4L2 Camera
Light Switch Detection
Automatic Brightness
Brightness
Contrast
Saturation
Video Resolution
320x240
Video Rotation
0°
Frame Rate
Extra Motion Options
File Storage
Text Overlay
Video Streaming
Still Images
Motion Detection
Camera1
copyright © Calin Crisan

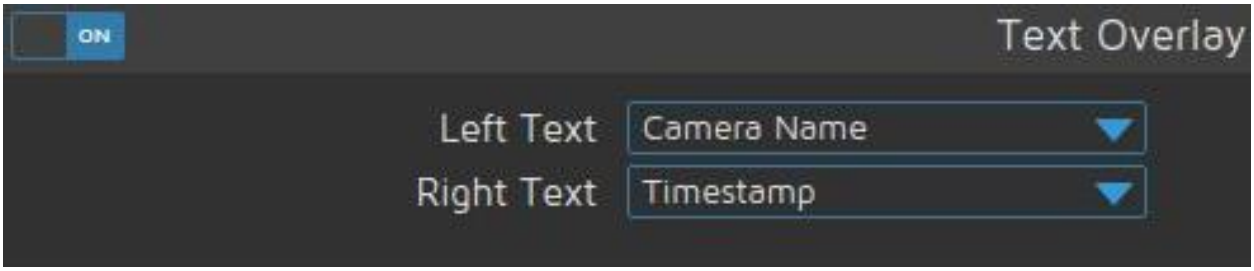

General Settings
Advanced Settings
ON
Admin Username
admin
Admin Password
Surveillance Username
user
Surveillance Password
Current Version
0.33.2
Configuration
Backup
Restore

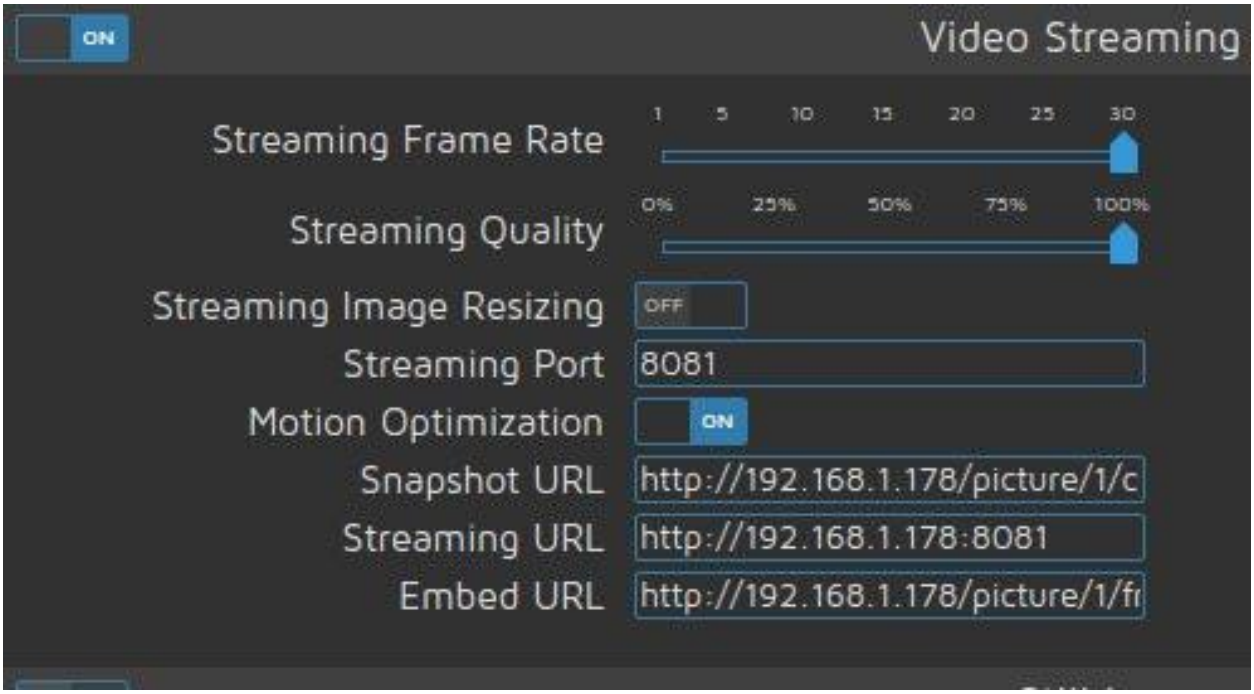

General Settings
Advanced Settings
ON
Admin Username
admin
Admin Password
Surveillance Username
user
Surveillance Password
Time Zone
Europe/London
Hostname
RPISPY_GARDEN
motionEye Version
0.35.2
Motion Version
4.0.1+git37b3595
OS Version
Software Update
Check
Power
Shut Down
Reboot
Configuration
Backup
Restore

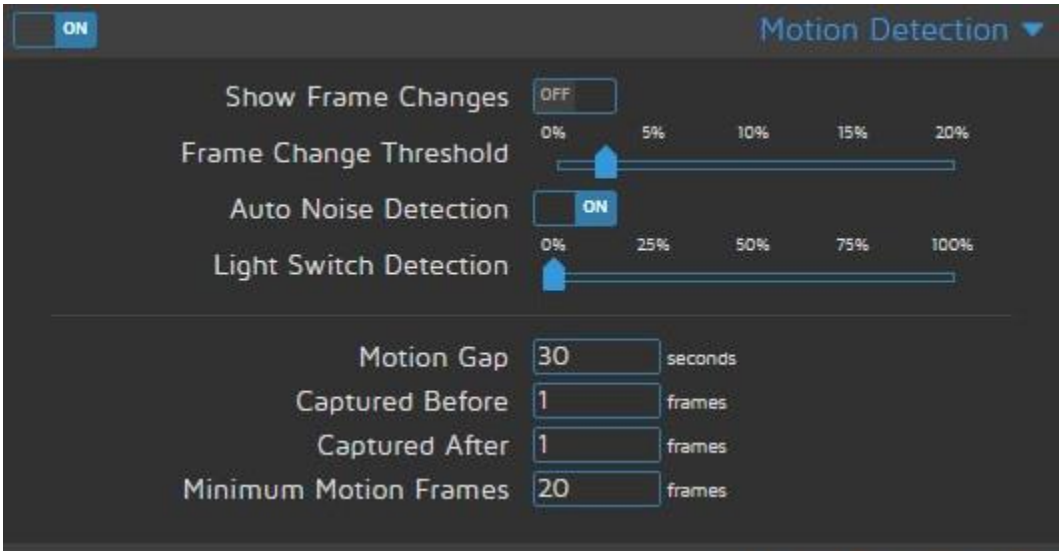

Network
Wireless Network
ON
Wireless Network Name
TheMatrix
Wireless Network Key
IP Configuration
Manual (Static IP)
IP Address
192.168.1.41
Network Mask
255.255.255.0
Default Gateway
192.168.1.1
DNS Server
8.8.8.8
Services

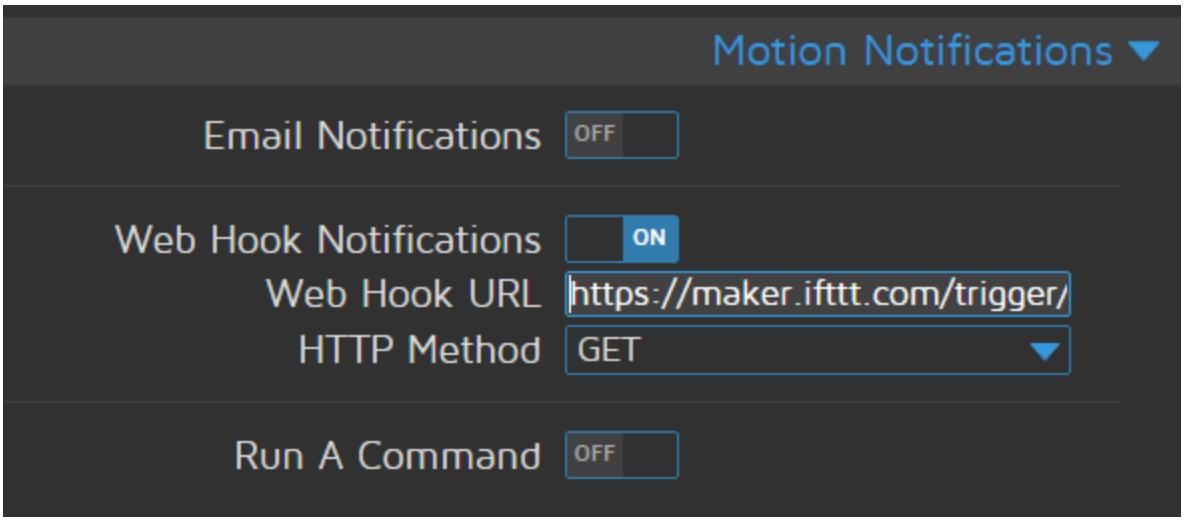

ON
Video Device
Camera Name
Camera1
Camera Device
/dev/video0
Camera Type
V4L2 Camera
Automatic Brightness
OFF
Brightness
0% 25% 50% 75% 100%
Contrast
0% 25% 50% 75% 100%
Saturation
0% 25% 50% 75% 100%
Video Resolution
640x480
Video Rotation
0°
Frame Rate
2 5 10 15 20 25 30
Extra Motion Options

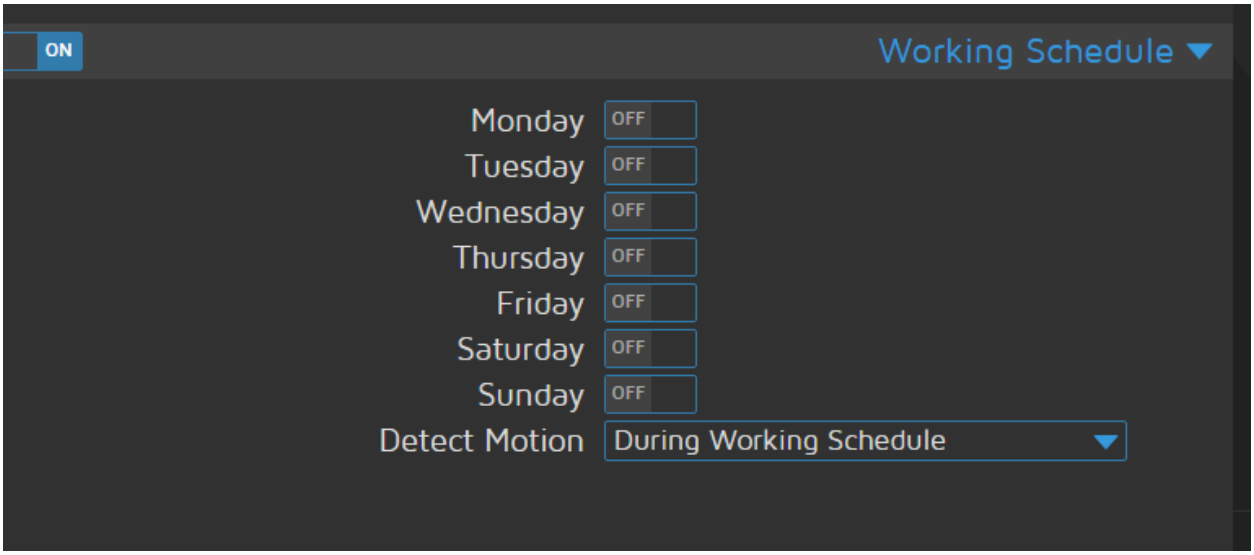

File Storage
Storage Device
Custom Path
Root Directory
/data/output/Camera1
Disk Usage
0.1/58.4 GB (0%)
Upload Media Files
OFF
Call A Web Hook
OFF
Run A Command
OFF

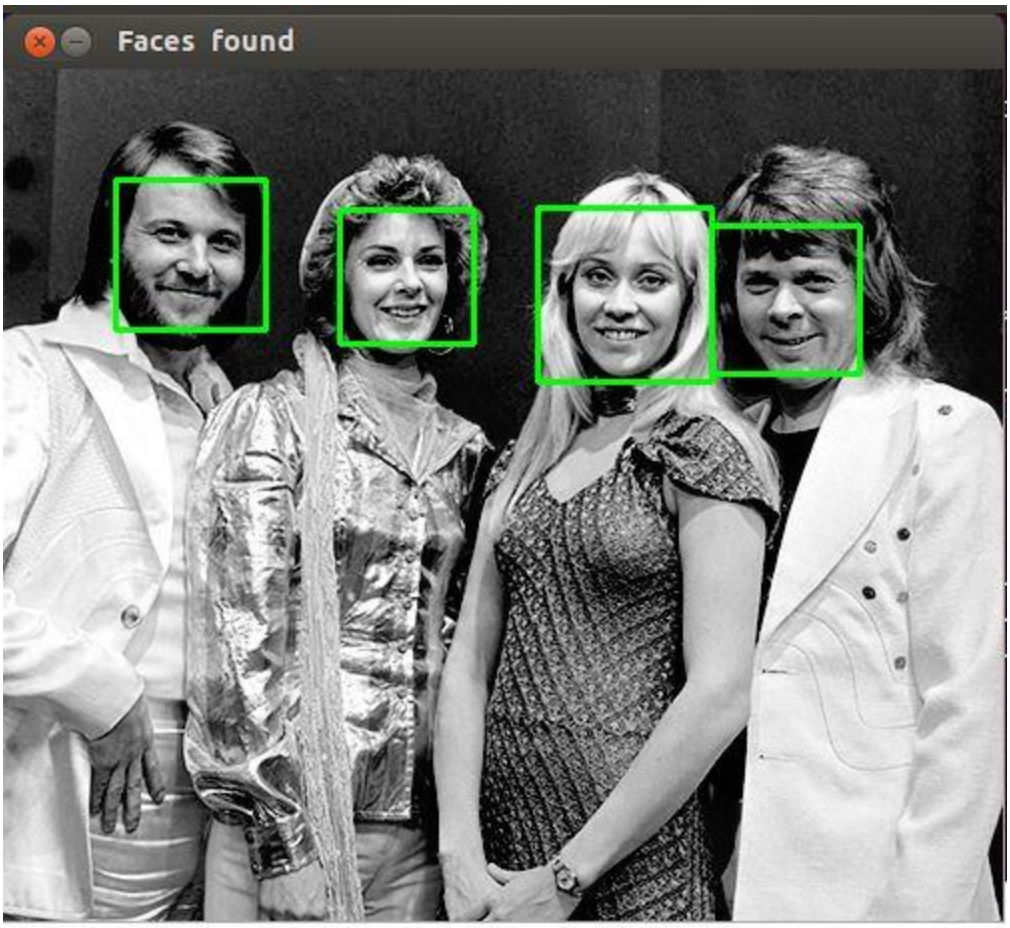

ON
Text Overlay
Left Text
Camera Name
Right Text
Timestamp

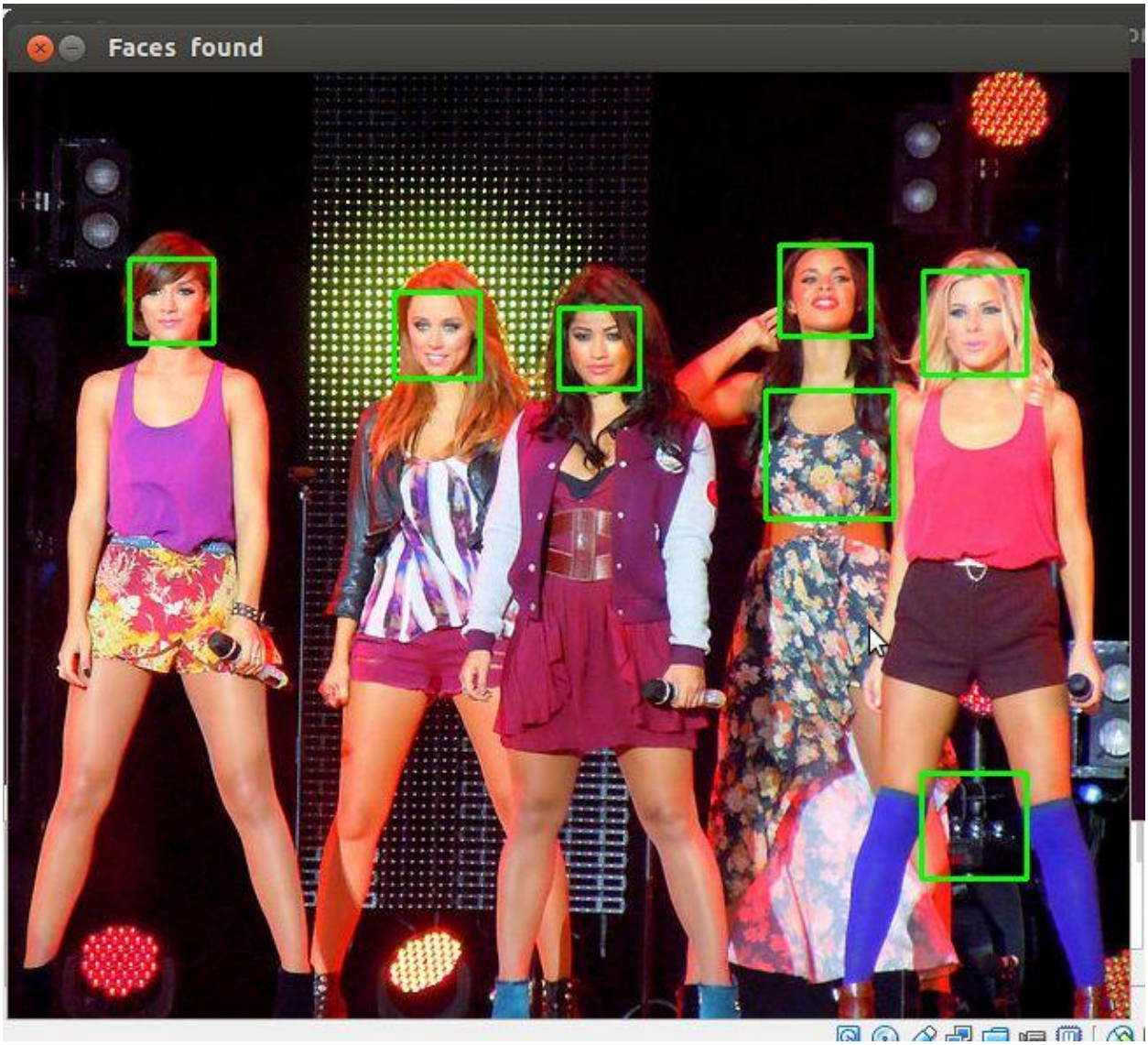

ON
Video Streaming
Streaming Frame Rate
1 5 10 15 20 25 30
Streaming Quality
0% 25% 50% 75% 100%
Streaming Image Resizing
OFF
Streaming Port
8081
Motion Optimization
ON
Snapshot URL
http://192.168.1.178/picture/1/c
Streaming URL
http://192.168.1.178:8081
Embed URL
http://192.168.1.178/picture/1/fr

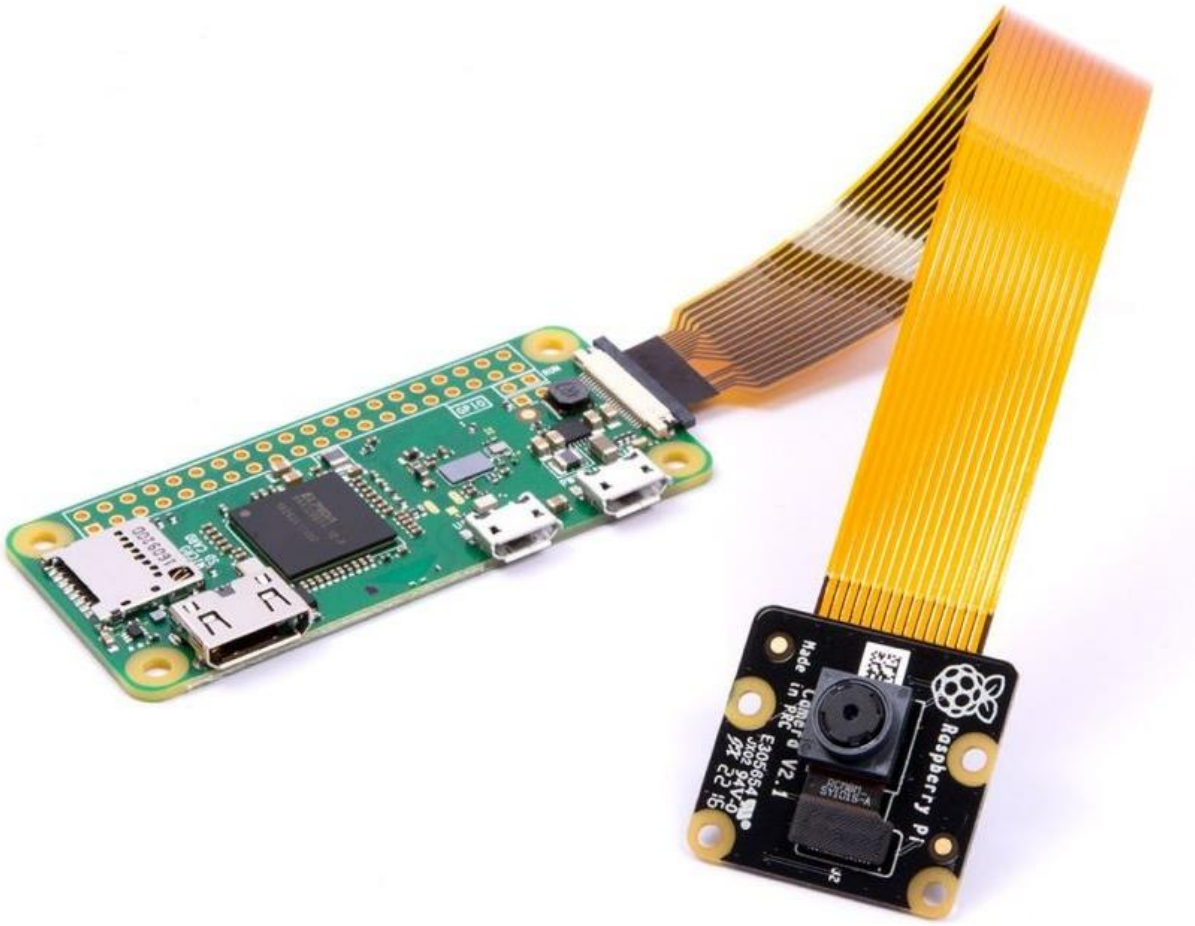

ON
Motion Detection
Show Frame Changes
OFF
Frame Change Threshold
0% 5% 10% 15% 20%
Auto Noise Detection
ON
Light Switch Detection
0% 25% 50% 75% 100%
Motion Gap
30
seconds
Captured Before
1
frames
Captured After
1
frames
Minimum Motion Frames
20
frames

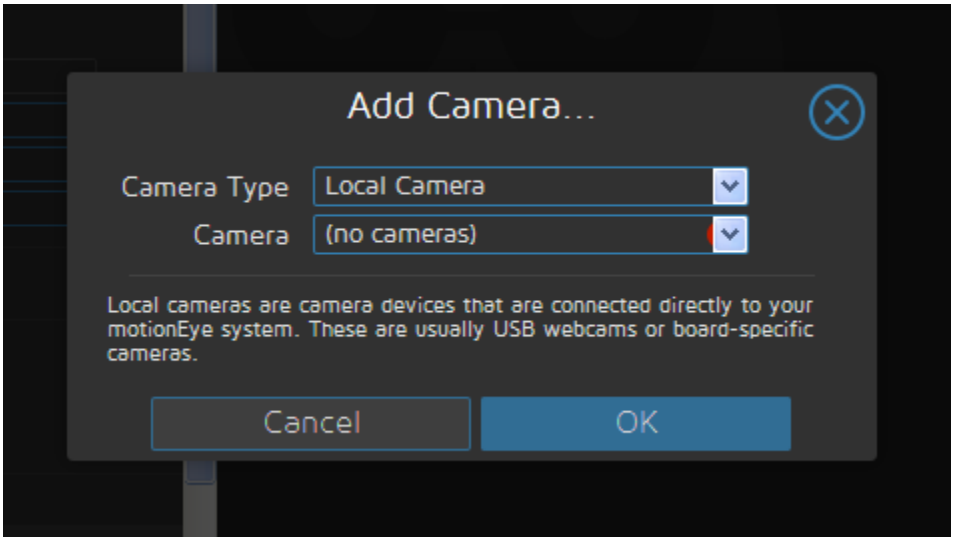

Motion Notifications
Email Notifications
OFF
Web Hook Notifications
ON
Web Hook URL
https://maker.ifttt.com/trigger/
HTTP Method
GET
Run A Command
OFF


ON
Working Schedule
Monday
OFF
Tuesday
OFF
Wednesday
OFF
Thursday
OFF
Friday
OFF
Saturday
OFF
Sunday
OFF
Detect Motion
During Working Schedule

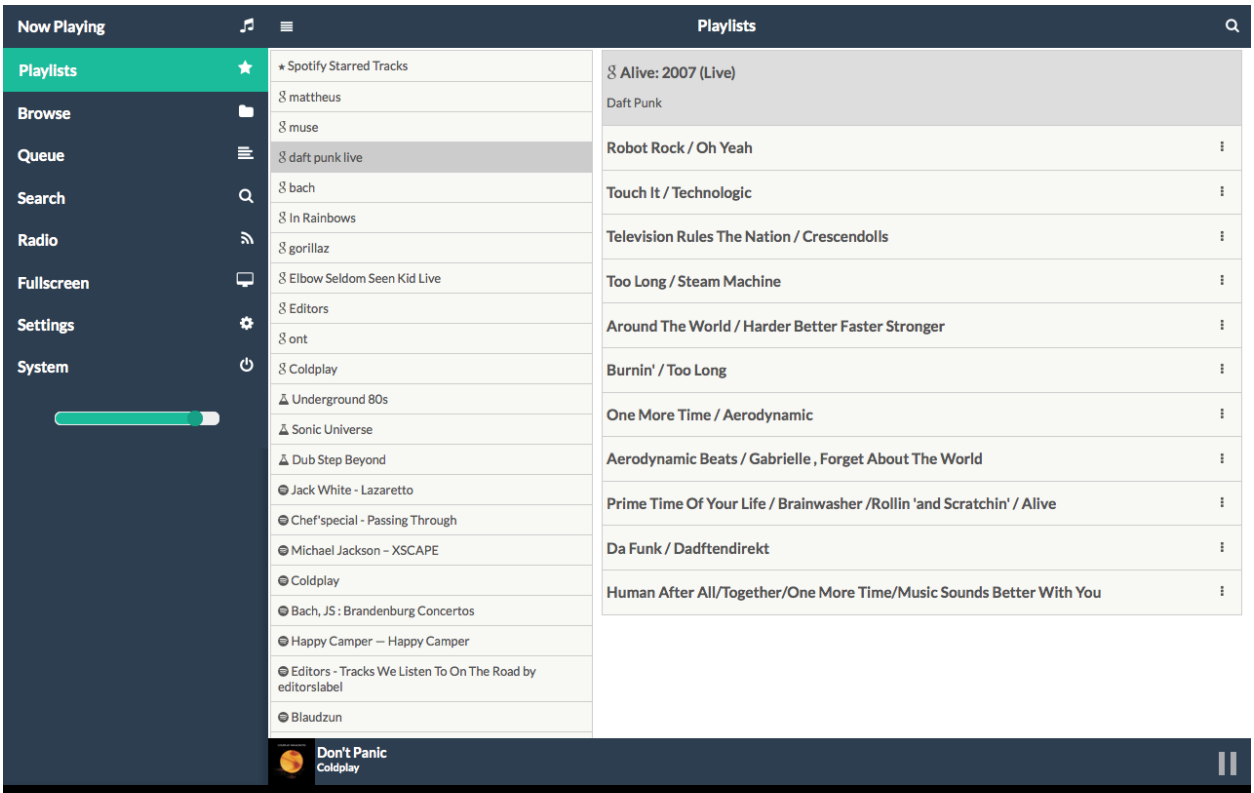

Faces found


Faces found

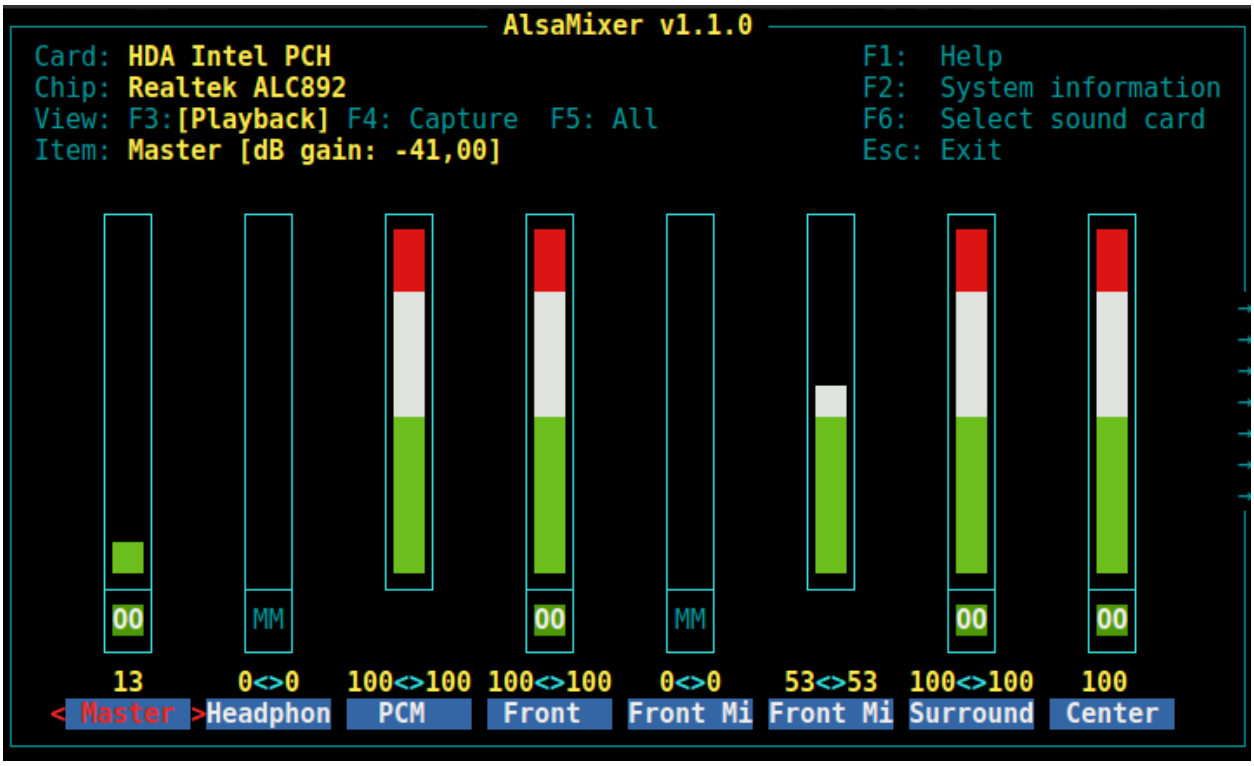


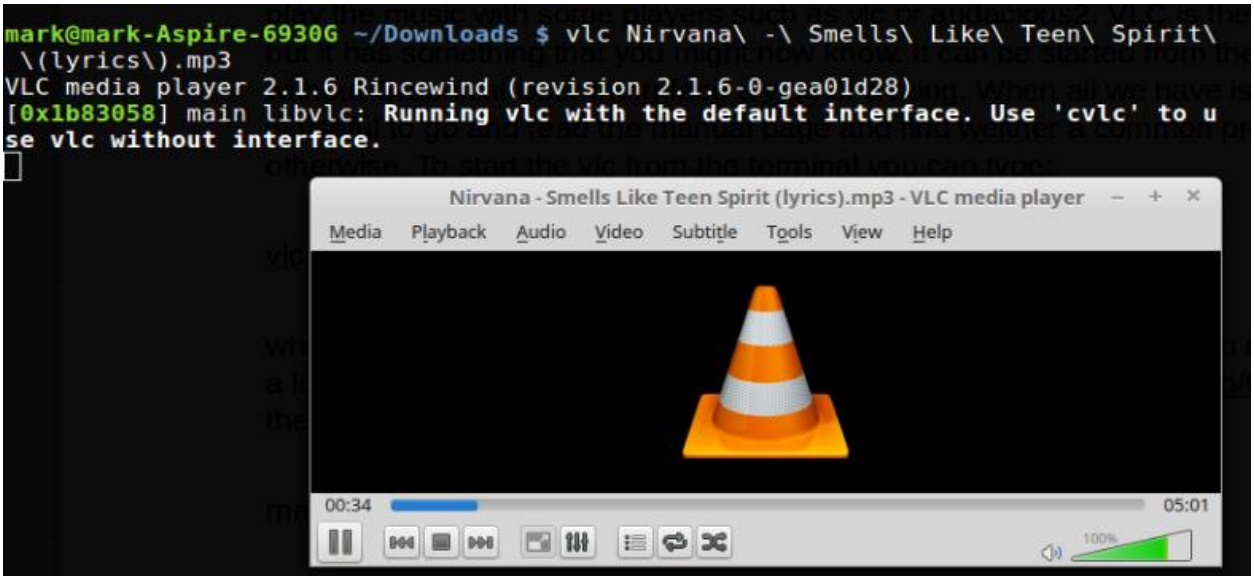

Add Camera...
Camera Type
Local Camera
Camera
(no cameras)
Local cameras are camera devices that are connected directly to your motionEye system. These are usually USB webcams or board-specific cameras.
Cancel
OK

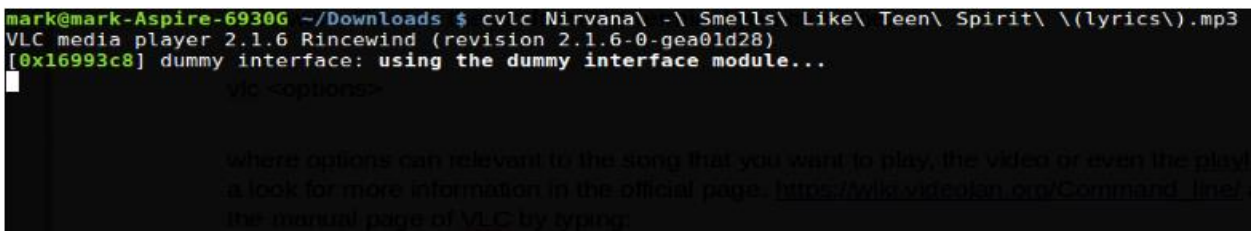
Chapter 7: Portable Speakers

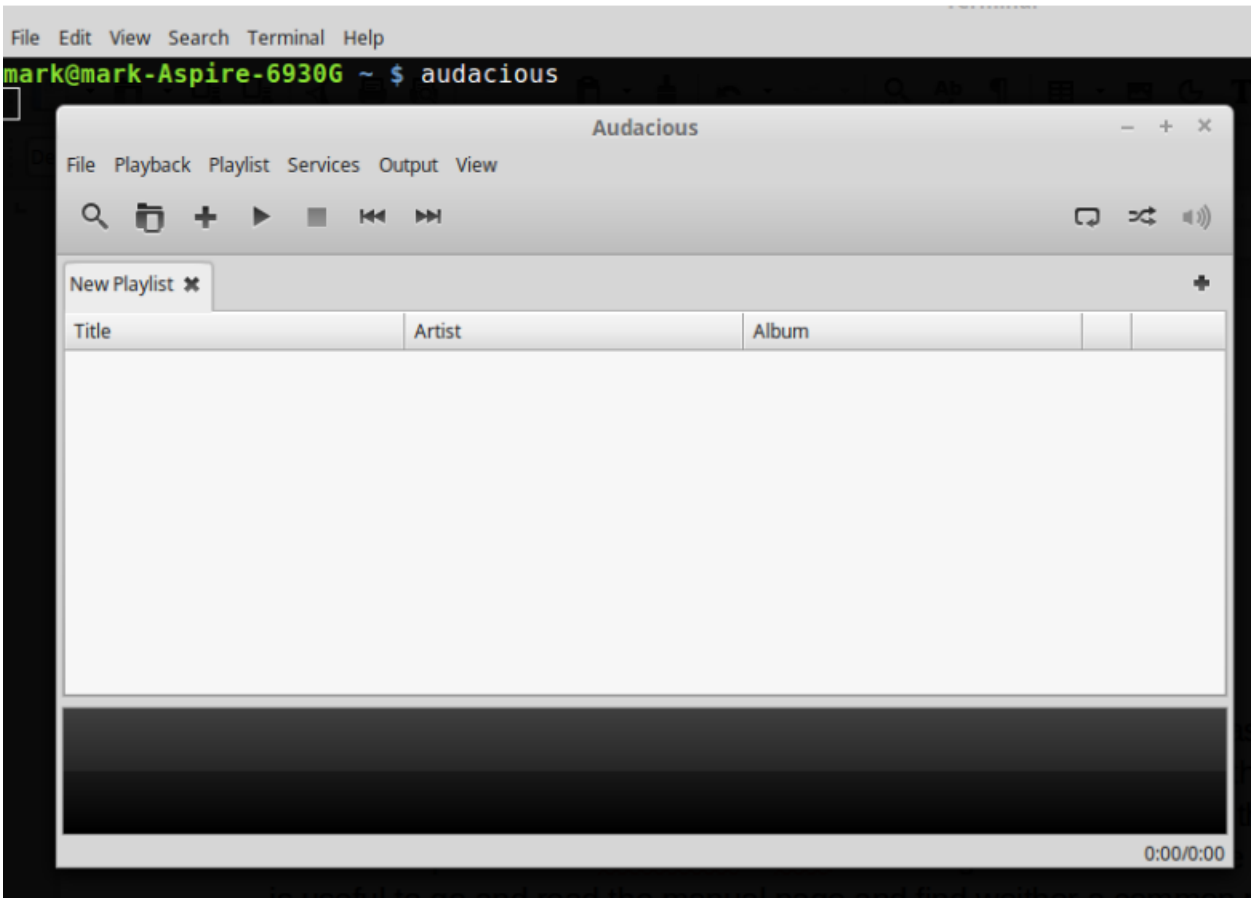


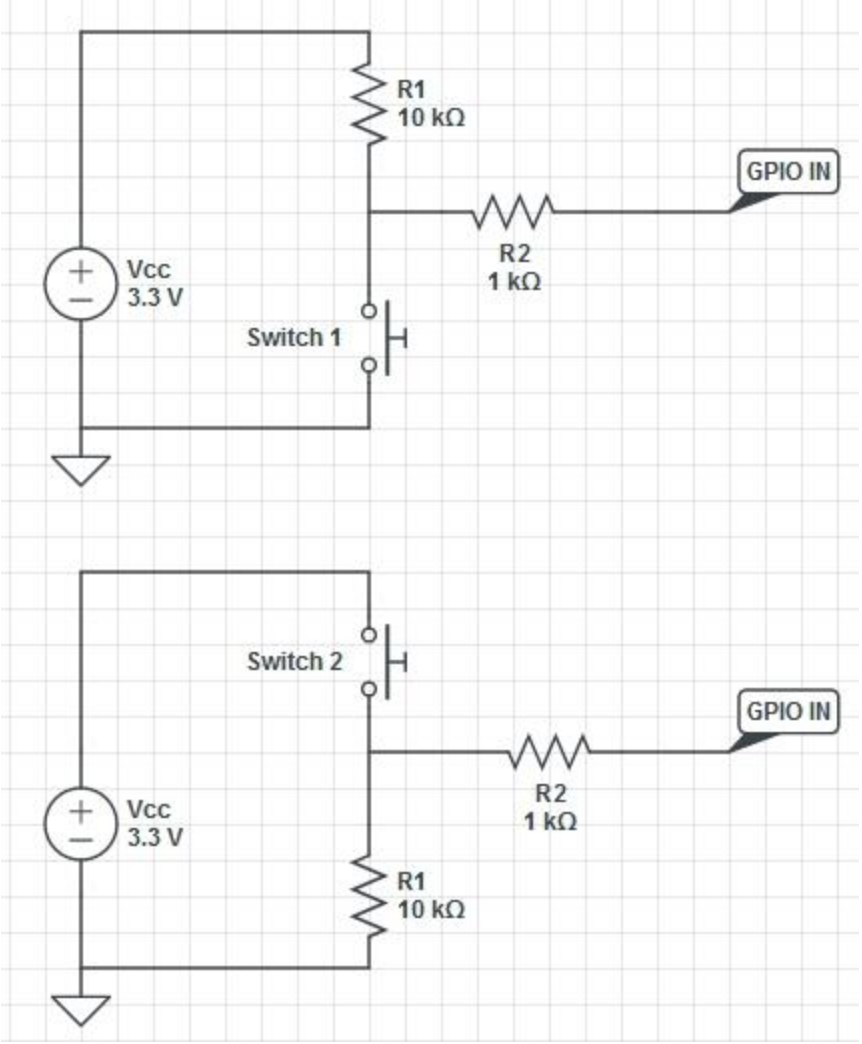

```
mark@zeus ~ $ aptitude search alsa
v   alsa                          -
v   alsa:i386                     -
i   alsa-base                     - ALSA driver configuration files
v   alsa-base:i386                -
p   alsa-firmware-loaders         - ALSA software loaders for specific hardwar
p   alsa-firmware-loaders:i386    - ALSA software loaders for specific hardwar
p   alsa-oss                      - ALSA wrapper for OSS applications
p   alsa-oss:i386                 - ALSA wrapper for OSS applications
p   alsa-source                   - ALSA driver sources
p   alsa-tools                    - Console based ALSA utilities for specific
p   alsa-tools:i386               - Console based ALSA utilities for specific
p   alsa-tools-gui                - GUI based ALSA utilities for specific hard
p   alsa-tools-gui:i386           - GUI based ALSA utilities for specific hard
i   alsa-utils                    - Utilities for configuring and using ALSA
p   alsa-utils:i386               - Utilities for configuring and using ALSA
p   alsamixergui                  - graphical soundcard mixer for ALSA soundca
p   alsamixergui:i386             - graphical soundcard mixer for ALSA soundca
v   alsaplayer                    -
v   alsaplayer:i386               -
p   alsaplayer-alsa               - alsaplayer output module for ALSA
p   alsaplayer-alsa:i386          - alsaplayer output module for ALSA
p   alsaplayer-common             - audio player (common files)
```


AlsaMixer v1.1.0
Card: HDA Intel PCH
Chip: Realtek ALC892
View: F3:[Playback] F4: Capture F5: All
Item: Master [dB gain: -41,00]
F1: Help
F2: System information
F6: Select sound card
Esc: Exit
OO
MM
OO
MM
OO
OO
13
0<>0
100<>100
100<>100
0<>0
53<>53
100<>100
100
< Master >
Headphon
PCM
Front
Front Mi
Front Mi
Surround
Center


mark@mark-Aspire-6930G ~/Downloads $ vlc Nirvana\ -\ Smells\ Like\ Teen\ Spirit\ \(lyrics\).mp3
VLC media player 2.1.6 Rincewind (revision 2.1.6-0-gea01d28)
[0x1b83058] main libvlc: Running vlc with the default interface. Use 'cvlc' to use vlc without interface.
Nirvana - Smells Like Teen Spirit (lyrics).mp3 - VLC media player
Media Playback Audio Video Subtitle Tools View Help
00:34
05:01
100%


mark@mark-Aspire-6930G ~/Downloads $ cvlc Nirvana\ -\ Smells\ Like\ Teen\ Spirit\ \(lyrics\).mp3
VLC media player 2.1.6 Rincewind (revision 2.1.6-0-gea01d28)
[0x16993c8] dummy interface: using the dummy interface module...


File Edit View Search Terminal Help
mark@mark-Aspire-6930G ~ $ audacious
Audacious
File Playback Playlist Services Output View
New Playlist
Title
Artist
Album
0:00/0:00


R1
10 kΩ
GPIO IN
R2
1 kΩ
Vcc
3.3 V
Switch 1
Switch 2
GPIO IN
R2
1 kΩ
Vcc
3.3 V
R1
10 kΩ

Chapter 8: WebPi Hosting

Top.Host
EXTREME SUPPORT

Hosting | Domain Names | Grid CDN | Dedicated Servers | SSL | Support

Elastic Web Hosting
Speed & Security Optimized

Web Hosting services carefully optimized, with a focus on high uptime, speed, security and Extreme Support.

Star
For your personal website

Unmetered space & traffic
Standard resources
SSD storage
1 dynamic site
24/7 Extreme Support

Speed Optimized
Advanced Security
Email Protection
Free Benefits

Planet
For developers, designers & SMBs

Unmetered space & traffic
High resources
SSD storage
5 dynamic sites
24/7 Extreme Support

Speed Optimized
Advanced Security
Email Protection
Free Benefits

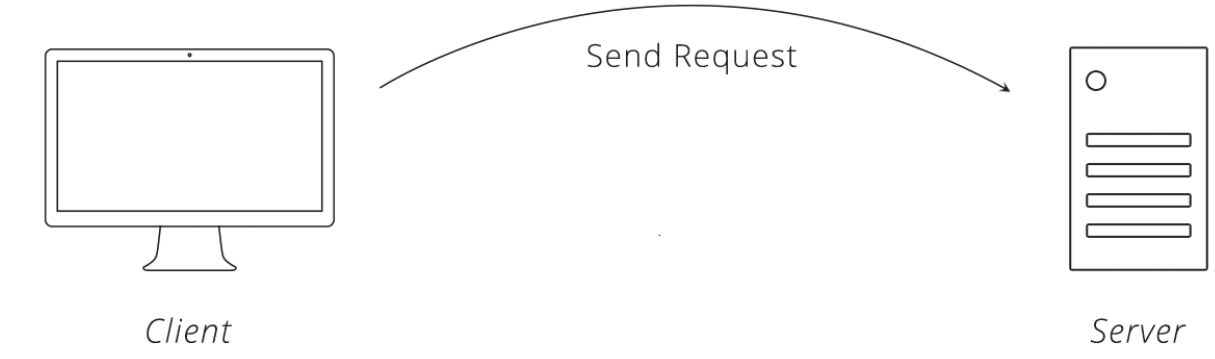
Galaxy
For the needs of web professionals

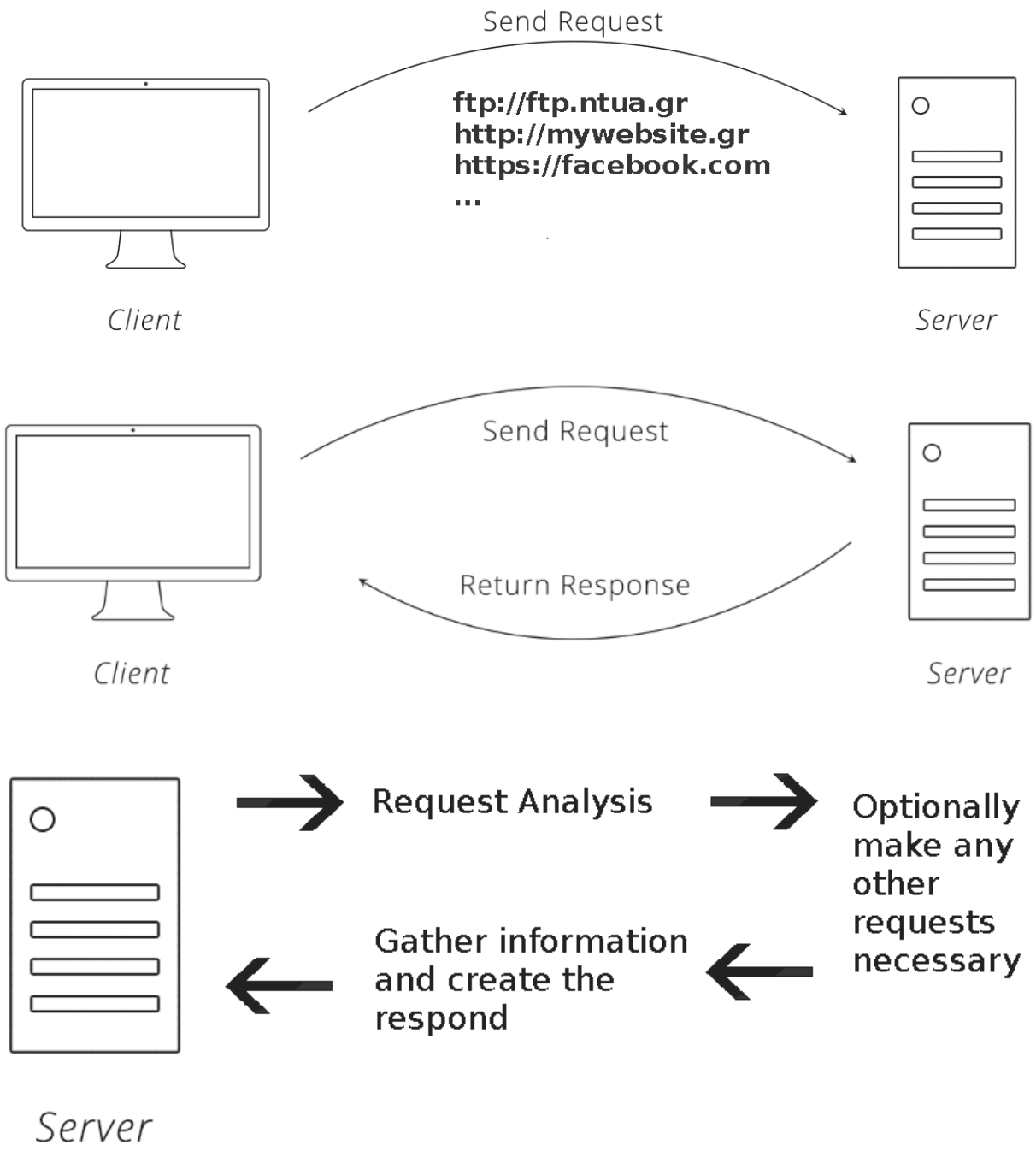
Unmetered space & traffic
Extreme resources
NVMe storage
Unlimited δυναμικά sites
24/7 Extreme Support

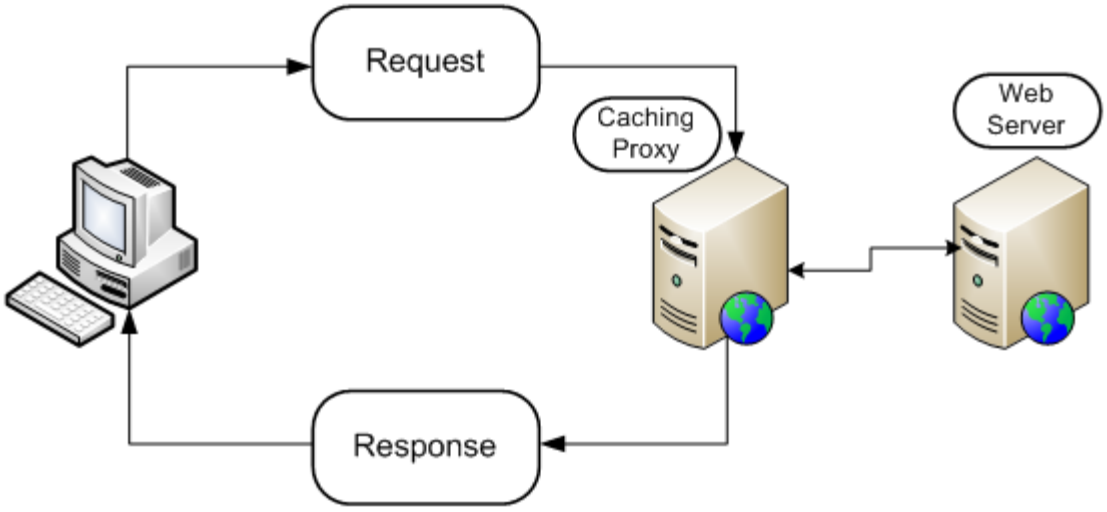
Speed Optimized
Advanced Security
Email Protection
Free Παροχές

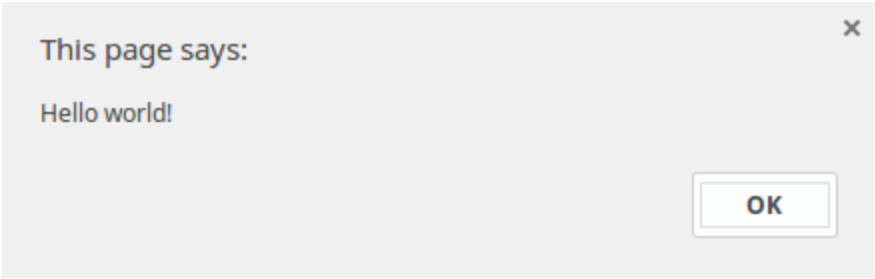
Big Bang
Ideal for demanding sites

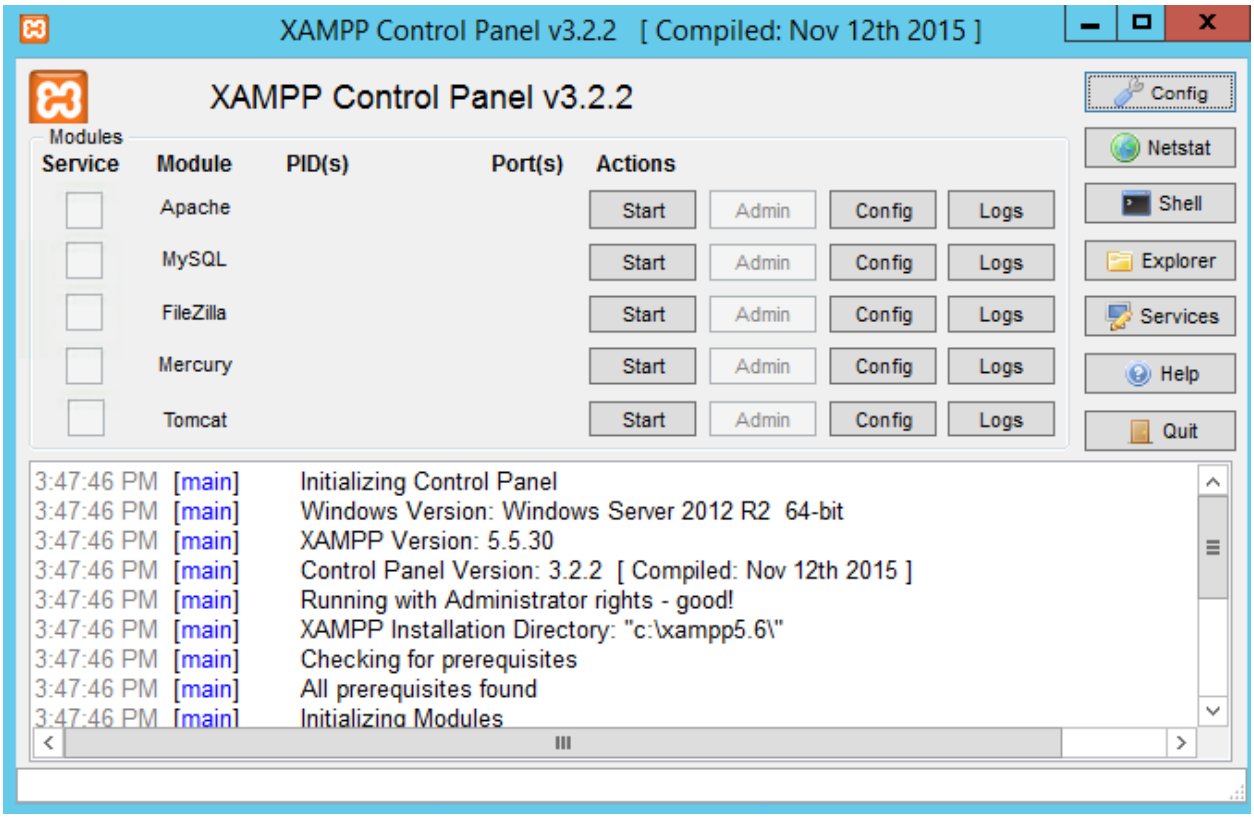
For demanding sites that require **high availability**. Hosting on semi-dedicated servers with **NVMe** disks for even **higher speed**, spam protection and **VIP 24/7** support. Site **backup** 3 times a day and continuous **uptime monitoring**.

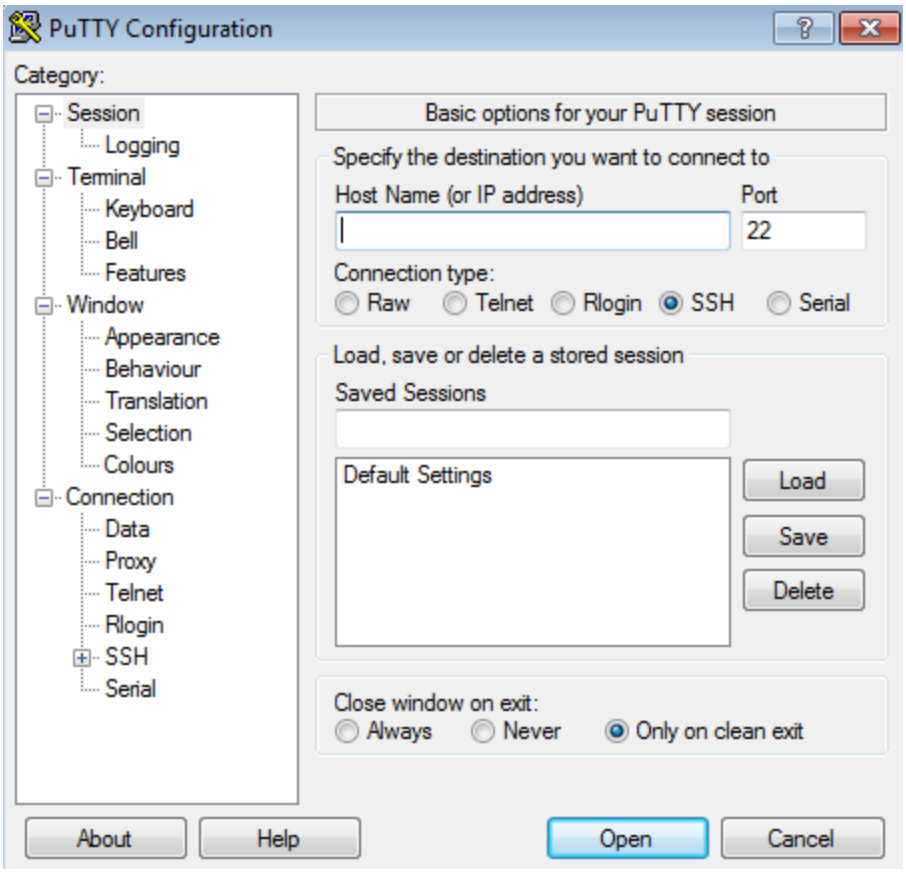


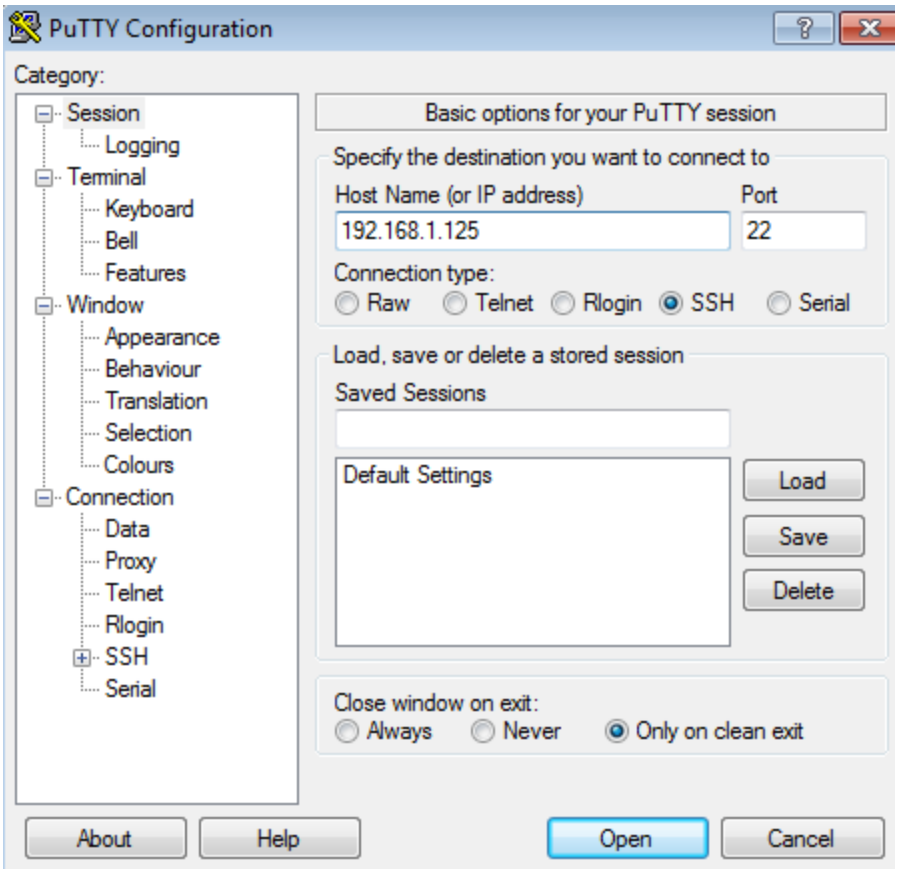

Send Request
ftp://ftp.ntua.gr
http://mywebsite.gr
https://facebook.com
...
Client
Server
Send Request
Return Response
Client
Server
Request Analysis
Optionally make any other requests necessary
Gather information and create the respond
Server

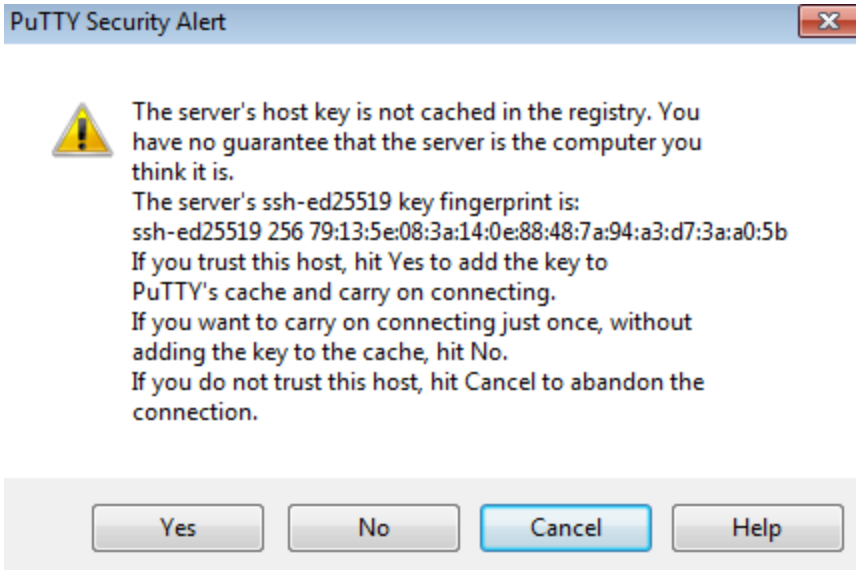

Request
Caching Proxy
Web Server
Response

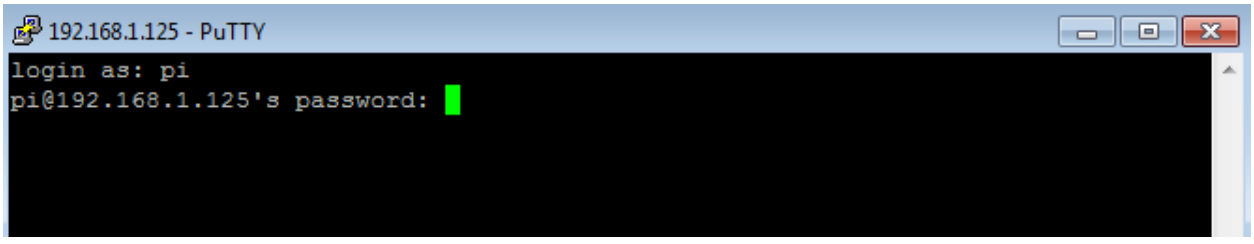

This page says:
Hello world!
OK


XAMPP Control Panel v3.2.2 [Compiled: Nov 12th 2015]
XAMPP Control Panel v3.2.2
Modules
Service
Module
PID(s)
Port(s)
Actions
Apache
MySQL
FileZilla
Mercury
Tomcat
Start
Admin
Config
Logs
Config
Netstat
Shell
Explorer
Services
Help
Quit
3:47:46 PM [main] Initializing Control Panel
3:47:46 PM [main] Windows Version: Windows Server 2012 R2 64-bit
3:47:46 PM [main] XAMPP Version: 5.5.30
3:47:46 PM [main] Control Panel Version: 3.2.2 [Compiled: Nov 12th 2015]
3:47:46 PM [main] Running with Administrator rights - good!
3:47:46 PM [main] XAMPP Installation Directory: "c:\xampp5.6\"
3:47:46 PM [main] Checking for prerequisites
3:47:46 PM [main] All prerequisites found
3:47:46 PM [main] Initializing Modules


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Serial
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
22
Connection type:
Raw
Telnet
Rlogin
SSH
Serial
Load, save or delete a stored session
Saved Sessions
Default Settings
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Help
Open
Cancel


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Serial
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
192.168.1.125
22
Connection type:
Raw
Telnet
Rlogin
SSH
Serial
Load, save or delete a stored session
Saved Sessions
Default Settings
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Help
Open
Cancel


PuTTY Security Alert
The server's host key is not cached in the registry. You have no guarantee that the server is the computer you think it is.
The server's ssh-ed25519 key fingerprint is:
ssh-ed25519 256 79:13:5e:08:3a:14:0e:88:48:7a:94:a3:d7:3a:a0:5b
If you trust this host, hit Yes to add the key to PuTTY's cache and carry on connecting.
If you want to carry on connecting just once, without adding the key to the cache, hit No.
If you do not trust this host, hit Cancel to abandon the connection.
Yes
No
Cancel
Help

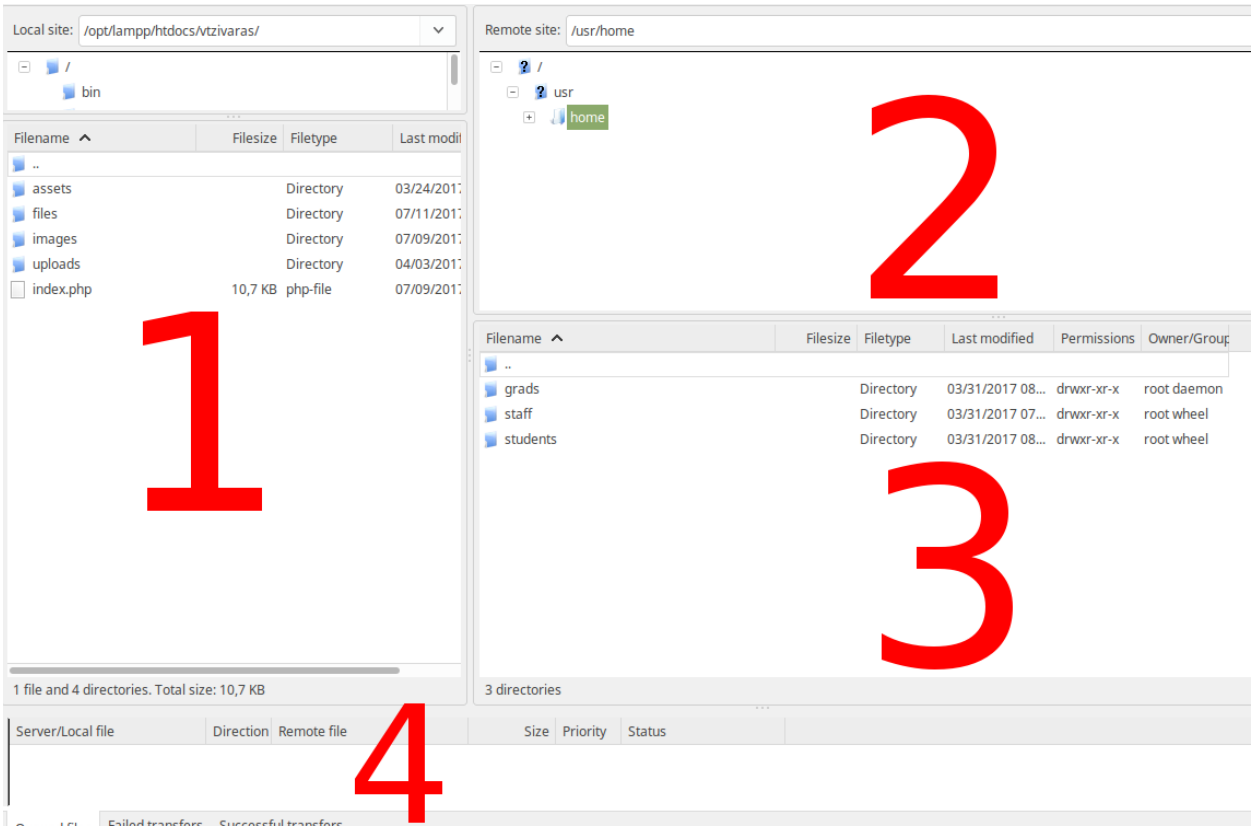

192.168.1.125 - PuTTY
login as: pi
pi@192.168.1.125's password:

```
mark@zeus ~ $ ssh
usage: ssh [-1246AaCfGgKkMNnqsTtVvXxYy] [-b bind_address] [-c cipher_spec]
           [-D [bind_address:]port] [-E log_file] [-e escape_char]
           [-F configfile] [-I pkcs11] [-i identity_file] [-L address]
           [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
           [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
           [-w local_tun[:remote_tun]] [user@]hostname [command]
```

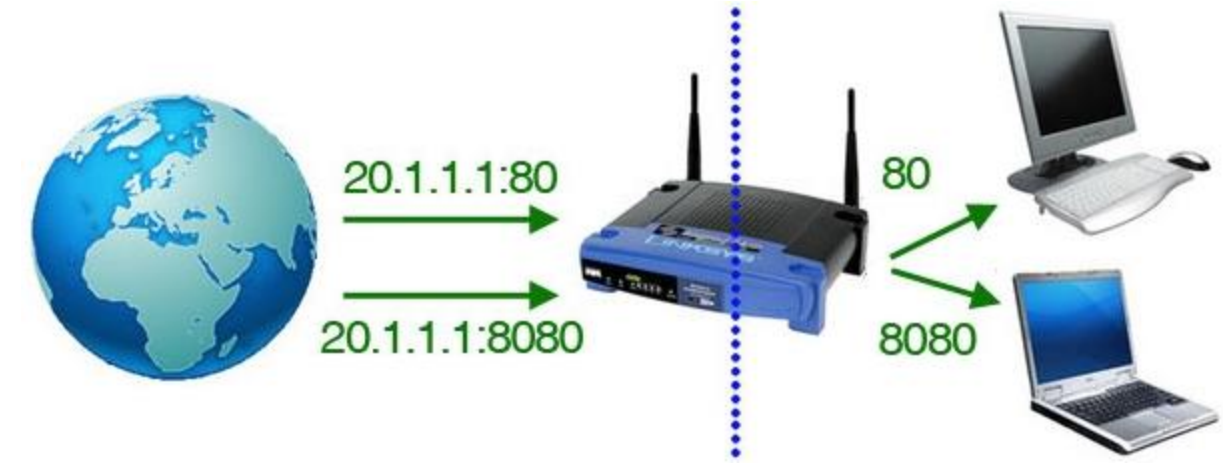
```
mark@zeus ~ $ ssh pi@192.168.1.125

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Tue Jun 27 16:27:48 2017 from 192.168.1.117
pi@raspberrypi:~$ _
```

```
mark@zeus ~ $ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/mark/.ssh/id_rsa): myrsa_
```

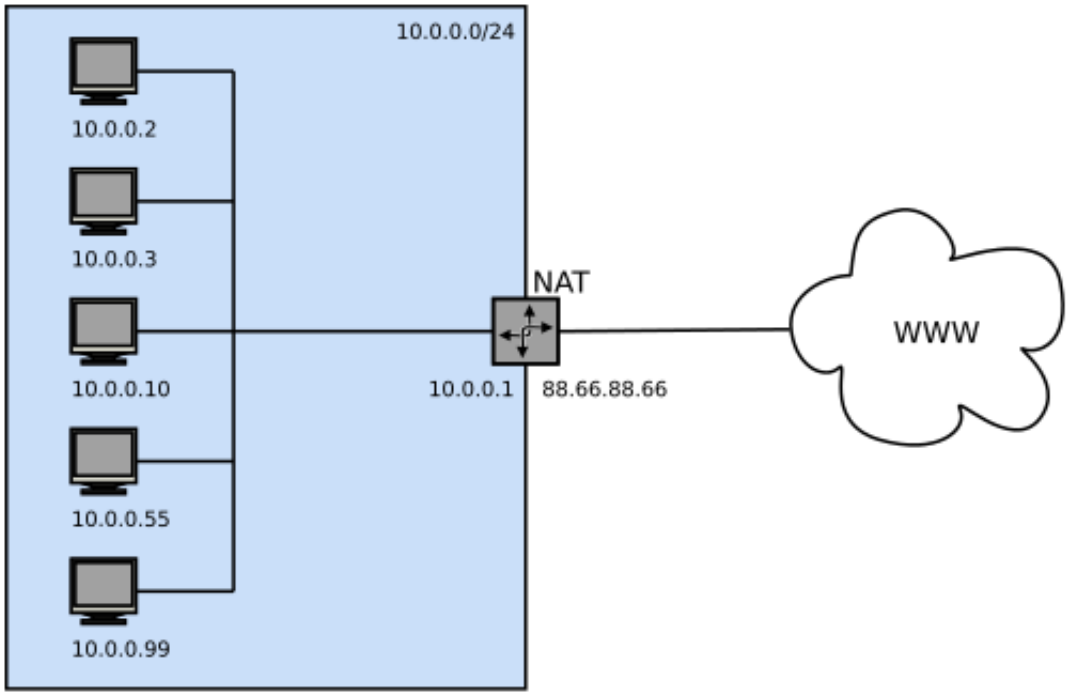
```
mark@zeus ~ $ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/mark/.ssh/id_rsa): myrsa
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in myrsa.
Your public key has been saved in myrsa.pub.
The key fingerprint is:
SHA256:HsYau9pX8GlXpvKM8GR06kw/tUK/nFwZREEpc+Uq9u4 mark@zeus
The key's randomart image is:
+---[RSA 2048]----+
|              .+=|
|             o.+ |
|              +..|
|       .. . . +. |
|      . S+ +o+.. |
|       *..@.+o. o|
|      o .@ O o.o.|
|       . .. = *+oo |
|     ..o.     +E. |
+----[SHA256]-----+
mark@zeus ~ $ _
```



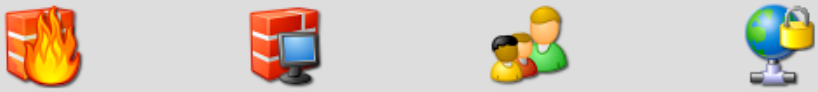

```
mark@zeus ~ $ sftp
usage: sftp [-1246aCfpqrv] [-B buffer_size] [-b batchfile] [-c cipher]
          [-D sftp_server_path] [-F ssh_config] [-i identity_file] [-l limit]
          [-o ssh_option] [-P port] [-R num_requests] [-S program]
          [-s subsystem | sftp_server] host
       sftp [user@]host[:file ...]
       sftp [user@]host[:dir[/]]
       sftp -b batchfile [user@]host
mark@zeus ~ $ _
```



Traffic Coming from	External Port		Internal Port
Any Host PPP - Ethernet over ATM, 8/35	**TCP 2880**	➡	**6869**
Any Host PPP - Ethernet over ATM, 8/35	**TCP 22**	➡	**Same Port**
Any Host PPP - Ethernet over ATM, 8/35	**TCP 4545**	➡	**80**



Security Settings



Enable: ○ Yes ◉ No

List Type: Black List (Do not allow browsing the listed web sites) ▾

List of Web Sites:

Each line can contain one of
host name (e.g. google.com)
ipaddr (e.g. 10.10.10.10)
netaddr/mask (e.g. 10.10.10.0/24)

Enable: ○ Yes ◉ No

Status: Disabled

WAN redirection: ○ Yes ◉ No
If WAN is up, redirect to URL:

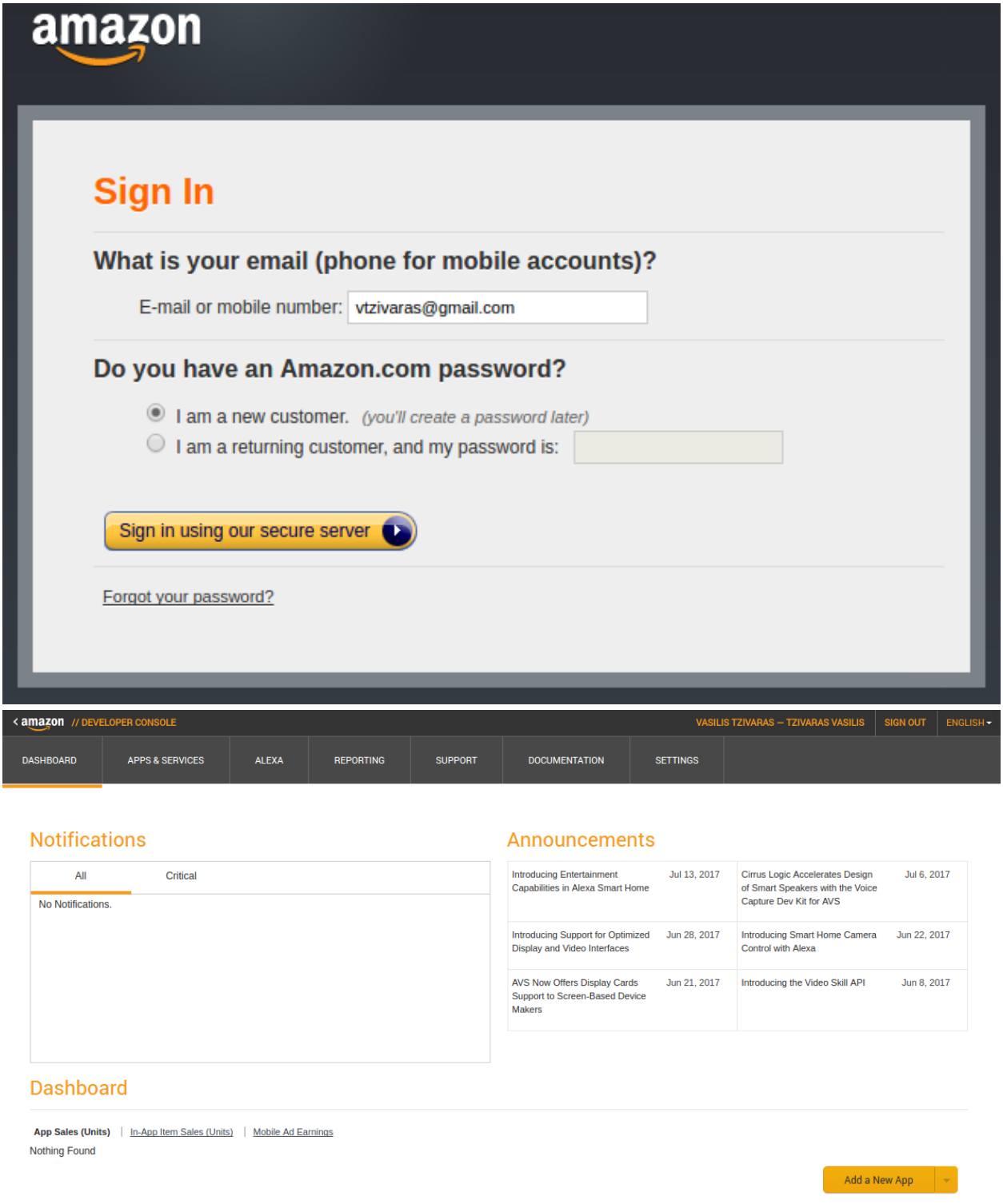
Allowed IP Addresses:

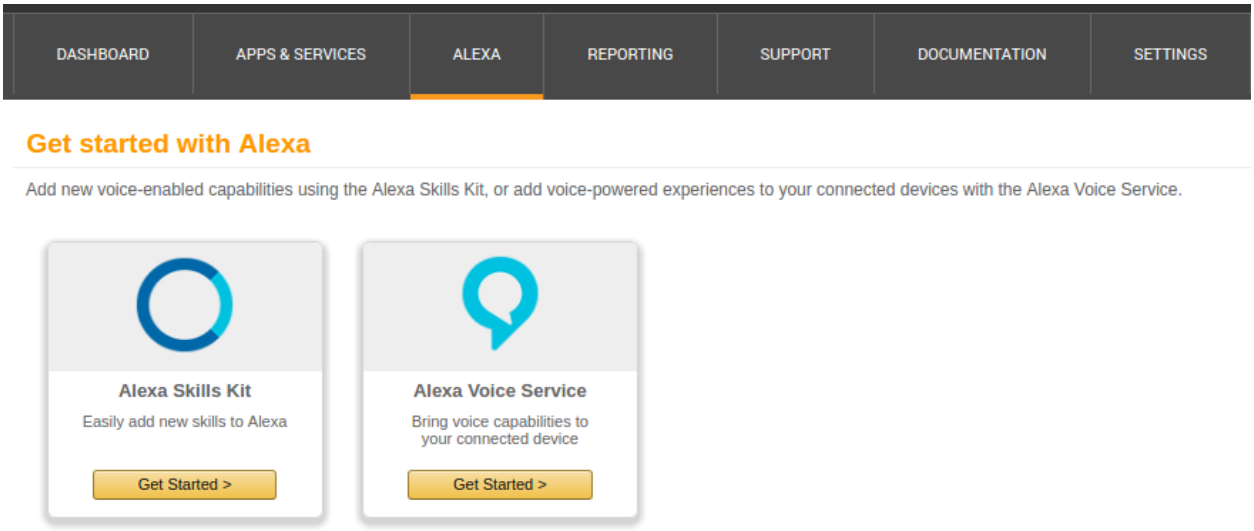
Each line can contain one of
ipaddr (e.g. 10.10.10.10)
netaddr/mask (e.g. 10.10.10.0/24)

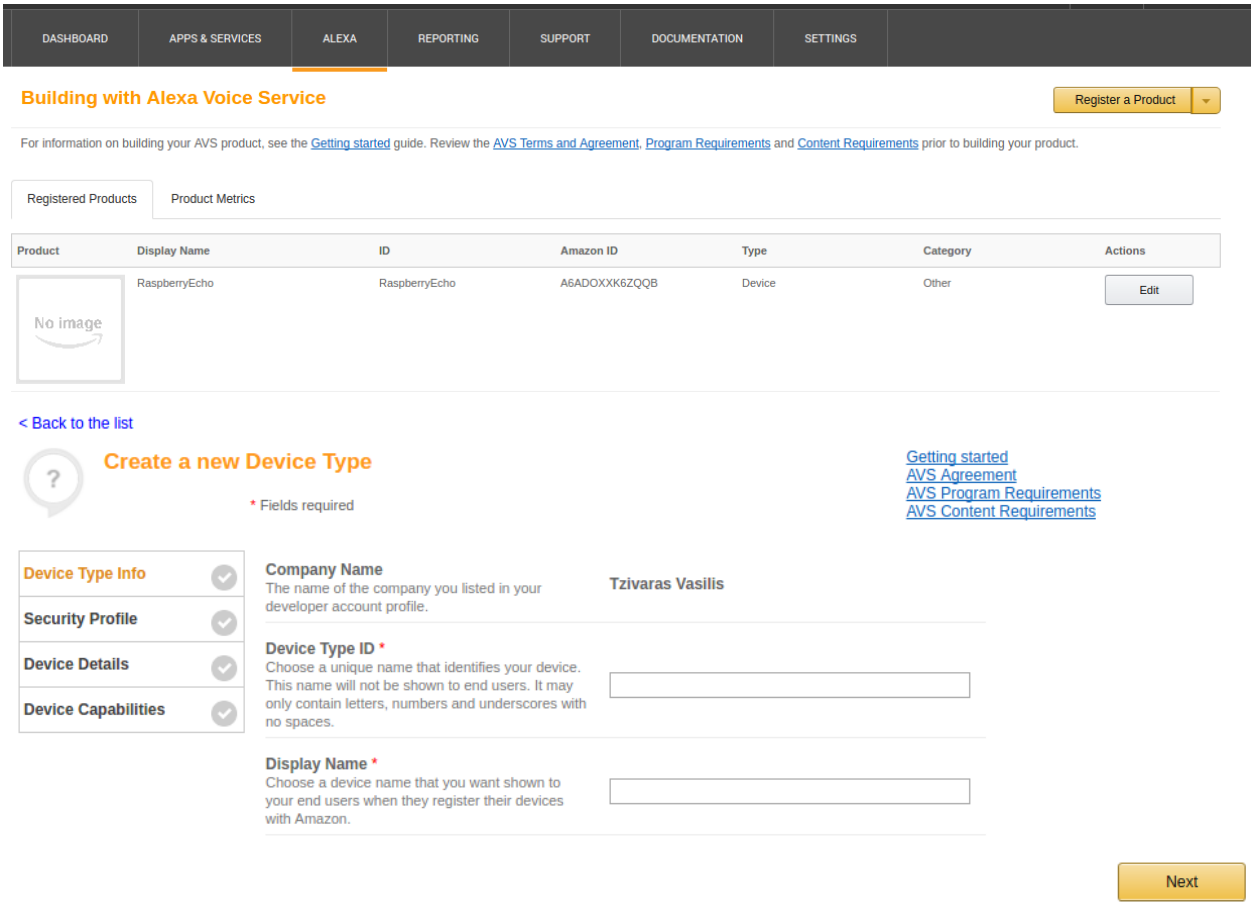
Internet Interface: ☐ PPP - Ethernet over ATM, 8/35 (46.103.209.138)

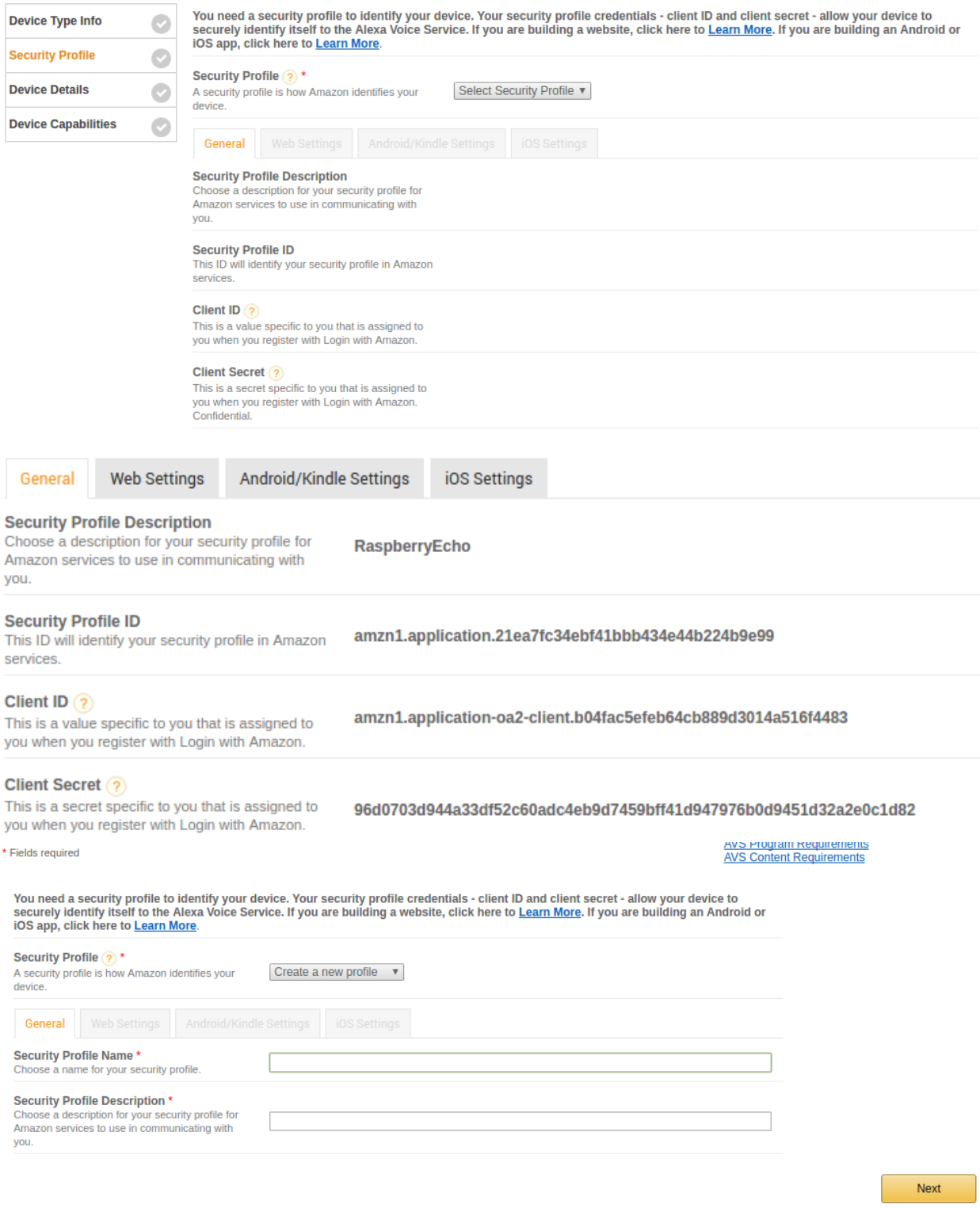
This button activate something: Active

Chapter 9: AlexaPi




DASHBOARD
APPS & SERVICES
ALEXA
REPORTING
SUPPORT
DOCUMENTATION
SETTINGS
Get started with Alexa
Add new voice-enabled capabilities using the Alexa Skills Kit, or add voice-powered experiences to your connected devices with the Alexa Voice Service.
Alexa Skills Kit
Easily add new skills to Alexa
Get Started >
Alexa Voice Service
Bring voice capabilities to your connected device
Get Started >


DASHBOARD
APPS & SERVICES
ALEXA
REPORTING
SUPPORT
DOCUMENTATION
SETTINGS
Building with Alexa Voice Service
Register a Product
For information on building your AVS product, see the Getting started guide. Review the AVS Terms and Agreement, Program Requirements and Content Requirements prior to building your product.
Registered Products
Product Metrics
Product
Display Name
ID
Amazon ID
Type
Category
Actions
No image
RaspberryEcho
RaspberryEcho
A6ADOXXK6ZQQB
Device
Other
Edit
< Back to the list
Create a new Device Type
* Fields required
Getting started
AVS Agreement
AVS Program Requirements
AVS Content Requirements
Device Type Info
Security Profile
Device Details
Device Capabilities
Company Name
The name of the company you listed in your developer account profile.
Tzivaras Vasilis
Device Type ID *
Choose a unique name that identifies your device. This name will not be shown to end users. It may only contain letters, numbers and underscores with no spaces.
Display Name *
Choose a device name that you want shown to your end users when they register their devices with Amazon.
Next


Device Type Info
Security Profile
Device Details
Device Capabilities
You need a security profile to identify your device. Your security profile credentials - client ID and client secret - allow your device to securely identify itself to the Alexa Voice Service. If you are building a website, click here to Learn More. If you are building an Android or iOS app, click here to Learn More.
Security Profile *
A security profile is how Amazon identifies your device.
Select Security Profile
General
Web Settings
Android/Kindle Settings
iOS Settings
Security Profile Description
Choose a description for your security profile for Amazon services to use in communicating with you.
Security Profile ID
This ID will identify your security profile in Amazon services.
Client ID
This is a value specific to you that is assigned to you when you register with Login with Amazon.
Client Secret
This is a secret specific to you that is assigned to you when you register with Login with Amazon. Confidential.
General
Web Settings
Android/Kindle Settings
iOS Settings
Security Profile Description
Choose a description for your security profile for Amazon services to use in communicating with you.
RaspberryEcho
Security Profile ID
This ID will identify your security profile in Amazon services.
amzn1.application.21ea7fc34ebf41bbb434e44b224b9e99
Client ID
This is a value specific to you that is assigned to you when you register with Login with Amazon.
amzn1.application-oa2-client.b04fac5efeb64cb889d3014a516f4483
Client Secret
This is a secret specific to you that is assigned to you when you register with Login with Amazon.
96d0703d944a33df52c60adc4eb9d7459bff41d947976b0d9451d32a2e0c1d82
* Fields required
AVS Program Requirements
AVS Content Requirements
You need a security profile to identify your device. Your security profile credentials - client ID and client secret - allow your device to securely identify itself to the Alexa Voice Service. If you are building a website, click here to Learn More. If you are building an Android or iOS app, click here to Learn More.
Security Profile *
A security profile is how Amazon identifies your device.
Create a new profile
General
Web Settings
Android/Kindle Settings
iOS Settings
Security Profile Name *
Choose a name for your security profile.
Security Profile Description *
Choose a description for your security profile for Amazon services to use in communicating with you.
Next

General | Web Settings | Android/Kindle Settings | iOS Settings

Security Profile Description
Choose a description for your security profile for Amazon services to use in communicating with you.

alexa example 2

Security Profile ID
This ID will identify your security profile in Amazon services.

amzn1.application.752b14170ee940f58addb134086f169c

Client ID
This is a value specific to you that is assigned to you when you register with Login with Amazon.

amzn1.application-oa2-client.7f54149c501e4ac48bb98b5484d8d028

Client Secret
This is a secret specific to you that is assigned to you when you register with Login with Amazon. Confidential.

b131fa6e5e8b4cc7919bce63d01e078512b3e38f0776bc19a46f00fe6b3f5a7c

< Back to the list

Create a new Device Type

* Fields required

Getting started
AVS Agreement
AVS Program Requirements
AVS Content Requirements

- Device Type Info ✓
- Security Profile ✓
- Device Details
- Device Capabilities

Image
Upload an image sized 142(width)x130(height) pixels in either PNG or JPG format. This image is displayed on your customer's Manage Your Content and Devices page.

UPLOAD IMAGE

Choose an image...

Category *
Choose the category that best describes where and how your device is used.

Choose option

Description *
Please provide a brief description of your device and its functionality.

Do you have plans to make your product available to the general public? * ○ Yes ○ No

Is your device a children's product or is it otherwise directed to children under the age of 13? * ○ Yes ○ No
Not sure? Learn more

< Back to the list

Create a new Device Type

* Fields required

Getting started
AVS Agreement
AVS Program Requirements
AVS Content Requirements

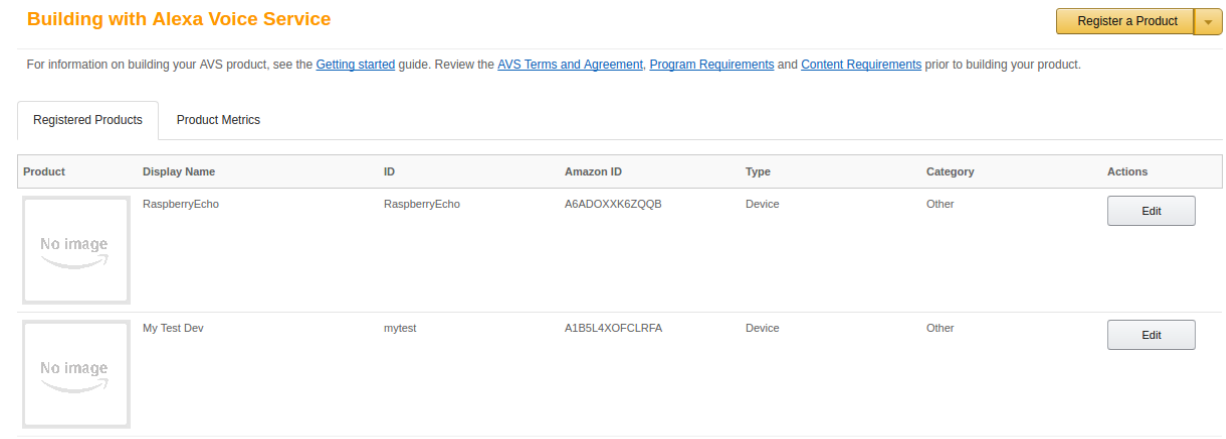
- Device Type Info ✓
- Security Profile ✓
- Device Details ✓
- Device Capabilities ✓

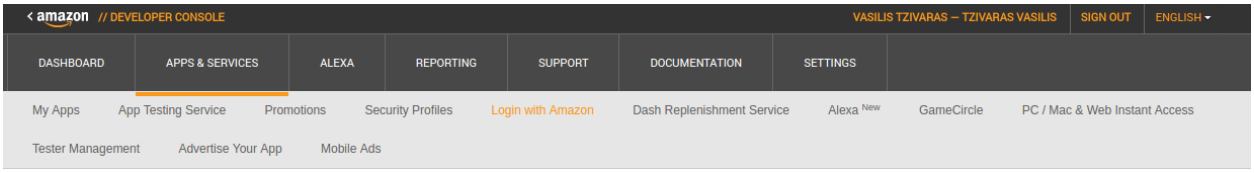
Select all capabilities that your product supports. AVS will provide access to specialized APIs for each supported capability.

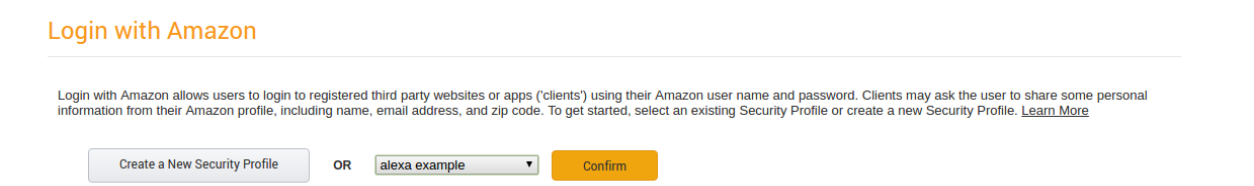
Display Cards ☐
Display Cards for Alexa allow products to render "Now Playing" information for music, as well as static display cards for general knowledge questions, weather, to-do and shopping lists, calendar updates, and Alexa skills. Your product should have a screen to enable this capability.

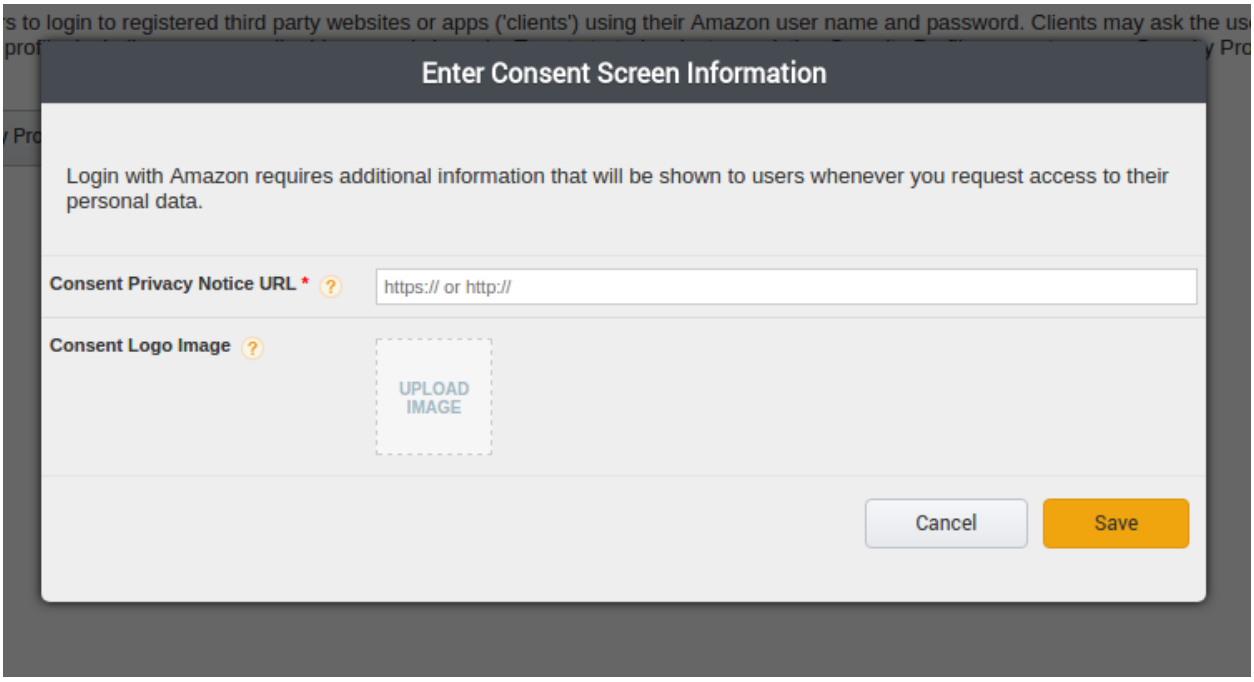
By submitting this form, you agree to Alexa Voice Service Agreement.

Submit


Building with Alexa Voice Service
Register a Product
For information on building your AVS product, see the Getting started guide. Review the AVS Terms and Agreement, Program Requirements and Content Requirements prior to building your product.
Registered Products
Product Metrics
Product
Display Name
ID
Amazon ID
Type
Category
Actions
No image
RaspberryEcho
RaspberryEcho
A6ADOXXK6ZQQB
Device
Other
Edit
No image
My Test Dev
mytest
A1B5L4XOFCLRFA
Device
Other
Edit


amazon // DEVELOPER CONSOLE
VASILIS TZIVARAS – TZIVARAS VASILIS
SIGN OUT
ENGLISH
DASHBOARD
APPS & SERVICES
ALEXA
REPORTING
SUPPORT
DOCUMENTATION
SETTINGS
My Apps
App Testing Service
Promotions
Security Profiles
Login with Amazon
Dash Replenishment Service
Alexa New
GameCircle
PC / Mac & Web Instant Access
Tester Management
Advertise Your App
Mobile Ads


Login with Amazon
Login with Amazon allows users to login to registered third party websites or apps ('clients') using their Amazon user name and password. Clients may ask the user to share some personal information from their Amazon profile, including name, email address, and zip code. To get started, select an existing Security Profile or create a new Security Profile. Learn More
Create a New Security Profile
OR
alexa example
Confirm


Enter Consent Screen Information
Login with Amazon requires additional information that will be shown to users whenever you request access to their personal data.
Consent Privacy Notice URL *
https:// or http://
Consent Logo Image
UPLOAD IMAGE
Cancel
Save

Login with Amazon

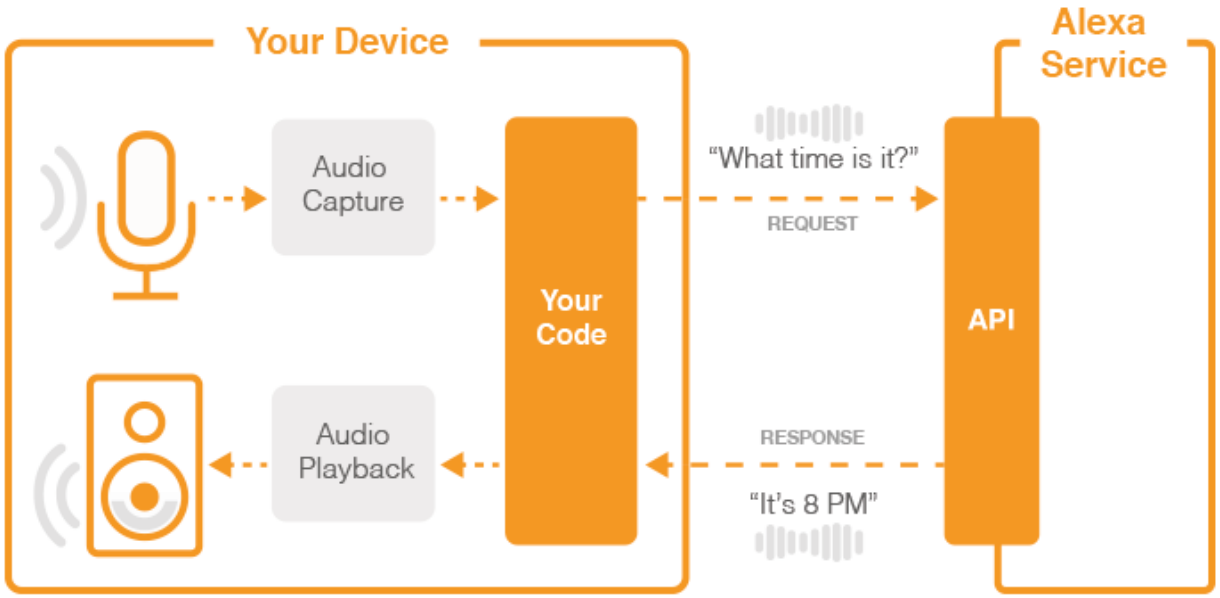
Login with Amazon allows users to login to registered third party websites or apps ('clients') using their Amazon user name and password. Clients may ask the user to share some personal information from their Amazon profile, including name, email address, and zip code. To get started, select an existing Security Profile or create a new Security Profile. Learn More

Create a New Security Profile OR Select a Security Profile

Login with Amazon successfully enabled for Security Profile. Click to manage Security Profile.

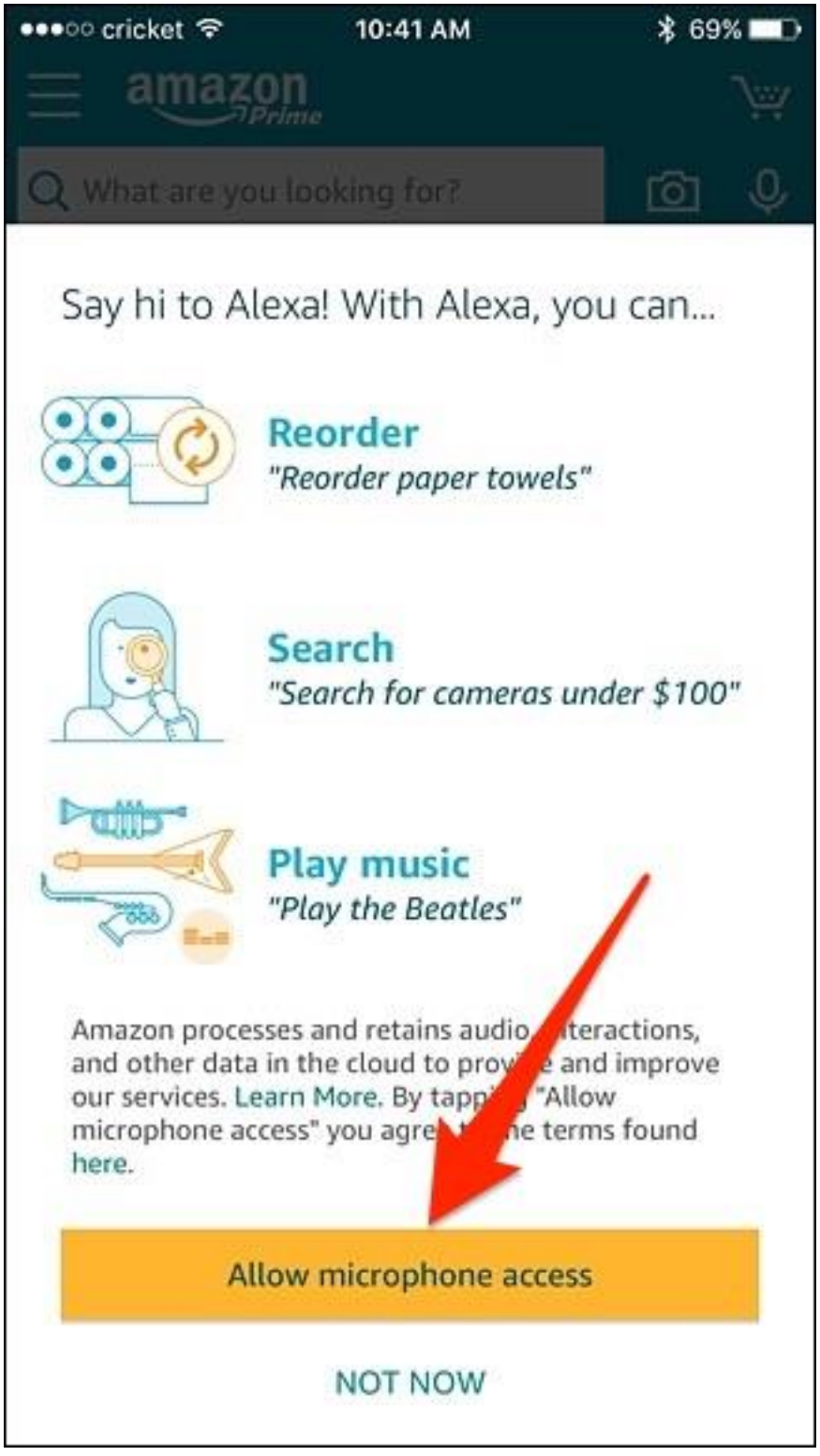
Login with Amazon Configurations

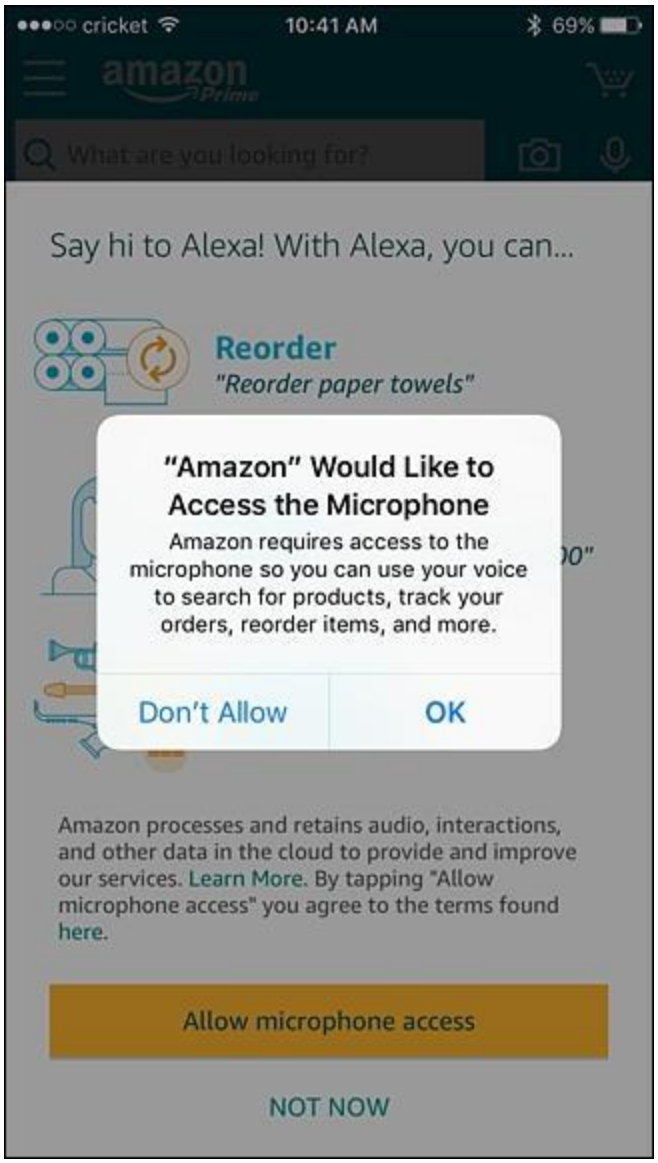
Security Profile Name	OAuth2 Credentials	Manage
alexa example	**Client ID:** amzn1.application-oa2-client.7f54149c501e4ac48bb98b5484d8d028 **Client Secret:** b131fa6e5e8b4cc7919bce63d01e078512b3e38f0776bc19a46f00fe6b3f5a7c	

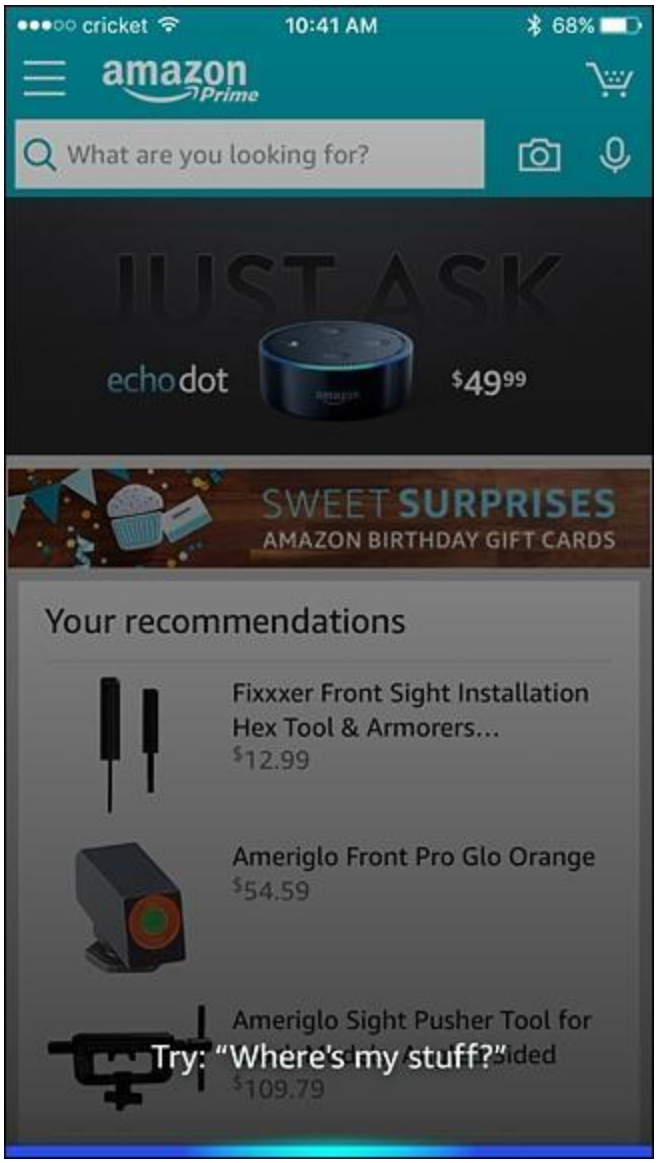


PHILIPS
hue
PERSONAL WIRELESS LIGHTING
White and color ambiance
Single bulb
Ampoule unique
Richer colors
PHILIPS
Hue white and color
PHILIPS
Hue white and color

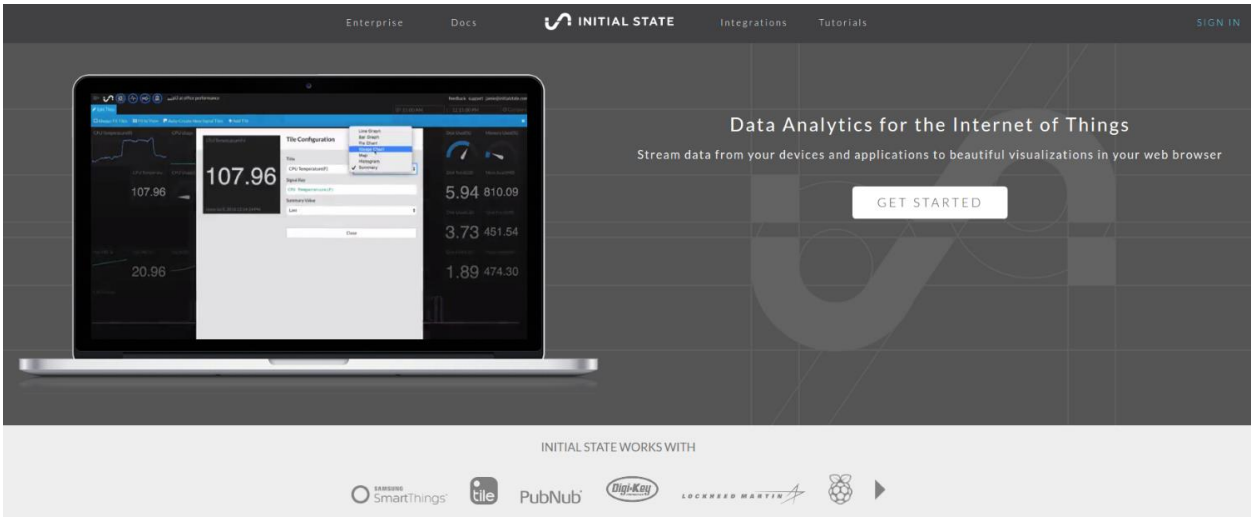
cricket
10:40 AM
69%
amazon
Prime
What are you looking for?
JUST ASK
echo dot
$49.99
SWEET SURPRISES
AMAZON BIRTHDAY GIFT CARDS
Your recommendations
Fixxxer Front Sight Installation Hex Tool & Armorers...
$12.99
Ameriglo Front Pro Glo Orange
$54.59
Ameriglo Sight Pusher Tool for Glock Models, Angled Sided
$109.79


●●●○○ cricket
10:41 AM
69%
amazon
Prime
What are you looking for?
Say hi to Alexa! With Alexa, you can...
Reorder
"Reorder paper towels"
Search
"Search for cameras under $100"
Play music
"Play the Beatles"
Amazon processes and retains audio interactions, and other data in the cloud to provide and improve our services. Learn More. By tapping "Allow microphone access" you agree to the terms found here.
Allow microphone access
NOT NOW


cricket
10:41 AM
69%
amazon
Prime
What are you looking for?
Say hi to Alexa! With Alexa, you can...
Reorder
"Reorder paper towels"
"Amazon" Would Like to Access the Microphone
Amazon requires access to the microphone so you can use your voice to search for products, track your orders, reorder items, and more.
Don't Allow
OK
Amazon processes and retains audio, interactions, and other data in the cloud to provide and improve our services. Learn More. By tapping "Allow microphone access" you agree to the terms found here.
Allow microphone access
NOT NOW


cricket
10:41 AM
68%
amazon Prime
What are you looking for?
JUST ASK
echo dot
$49.99
SWEET SURPRISES
AMAZON BIRTHDAY GIFT CARDS
Your recommendations
Fixxxer Front Sight Installation Hex Tool & Armorers...
$12.99
Ameriglo Front Pro Glo Orange
$54.59
Ameriglo Sight Pusher Tool for
$109.79
Try: "Where's my stuff?"

Chapter 10: WeatherPi



Data Views

Ways to explore and interact with data

Tiles | Waves | Lines | Source

Stats

Data totals over time

Streamed Events

0 Total Events

0 This Month

Not much happening yet.

Get started with one of these projects or learn how to stream data from your own projects.

20,000

10,000

0

Jul

Totals

1	0	1	0	0
Workspaces	Streams	File	Shared by me	Shared with me

Recent Activity

Logged in since 7/18/17 2:24 PM

Example Import
7/18/17 2:24 PM

Links

Explore New Features

Change My Plan

Manage My Account

View The Events API Docs

Take a Quick Tour

Streaming Access Keys

No Keys Available

+ Create A New Key

Streaming Connections

SmartThings