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# 300 Dollar Food Computer MVP Software Guide

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# Required Materials

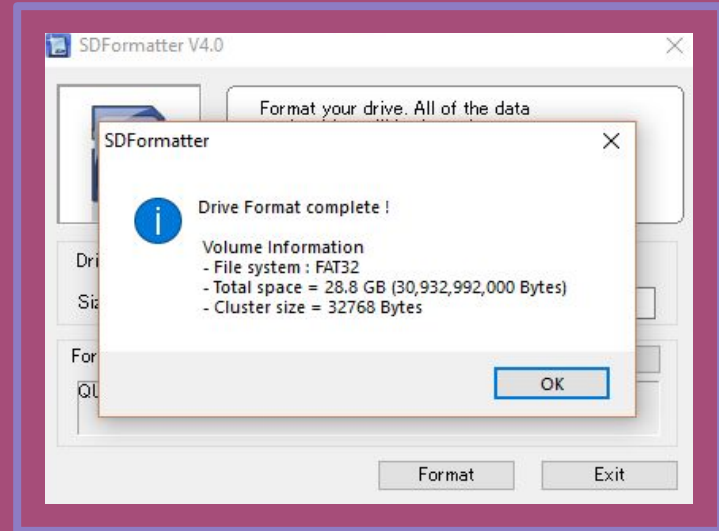
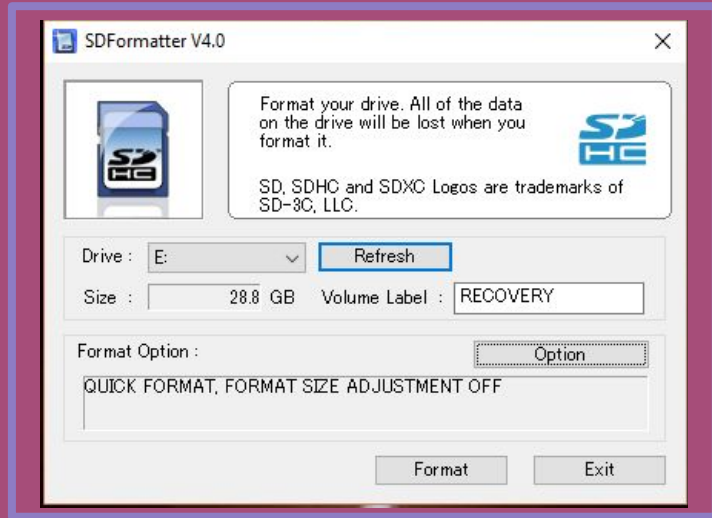
- Blank SD card (16gb or larger)
- Raspberry Pi
- Sensors installed on Raspberry Pi  
(needed for data collection to work)
- Computer Monitor (HDMI Port)
- HDMI Cable
- Keyboard / Mouse



# 1. Format SD Card

Start with a blank SD card (16gb or larger). Format the SD card. Use SDFormatter, available for download here:

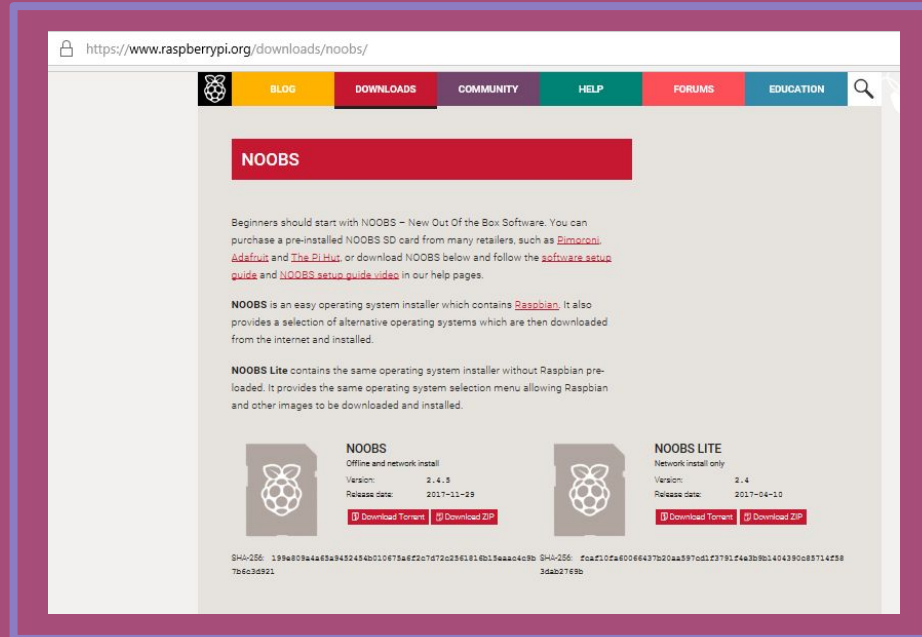
[https://www.sdcard.org/downloads/formatter\\_4/index.html](https://www.sdcard.org/downloads/formatter_4/index.html)



## 2. Download NOOBS

Download the latest Raspbian NOOBS. Download available here:

<https://www.raspberrypi.org/downloads/noobs/>



The screenshot shows the website <https://www.raspberrypi.org/downloads/noobs/>. The navigation bar includes links for BLOG, DOWNLOADS, COMMUNITY, HELP, FORUMS, and EDUCATION. The main content area features a red header for "NOOBS" and introductory text for beginners. It describes NOOBS as an easy operating system installer and provides details for two versions: NOOBS (Offline and network install) and NOOBS LITE (Network install only). Both versions are version 2.4.9, released on 2017-11-29. Download links for Torrent and ZIP are provided for each. At the bottom, there are two long alphanumeric strings, likely hashes or identifiers for the downloads.

<https://www.raspberrypi.org/downloads/noobs/>

**NOOBS**

Beginners should start with NOOBS – New Out Of The Box Software. You can purchase a pre-installed NOOBS SD card from many retailers, such as [Pimoroni](#), [Adafruit](#), and [The Pi Hut](#), or download NOOBS below and follow the [software setup guide](#) and [NOOBS setup guide video](#) in our help pages.

NOOBS is an easy operating system installer which contains [Raspbian](#). It also provides a selection of alternative operating systems which are then downloaded from the internet and installed.

NOOBS Lite contains the same operating system installer without Raspbian pre-loaded. It provides the same operating system selection menu allowing Raspbian and other images to be downloaded and installed.

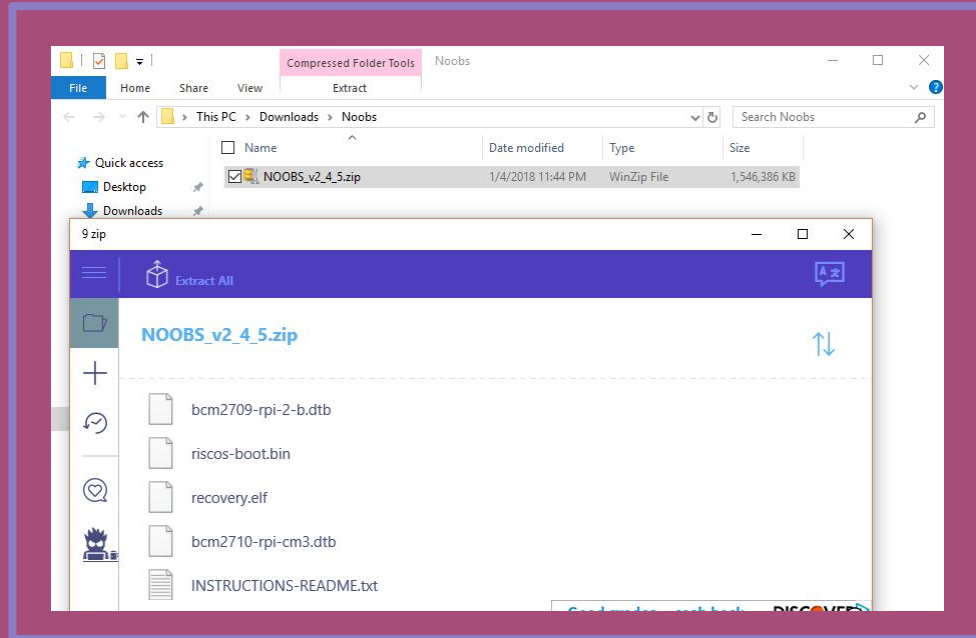
| NOOBS   | NOOBS LITE  |
|---|---|
| Offline and network install                                     | Network install only  |
| Version: 2.4.9  | Version: 2.4  |
| Release date: 2017-11-29  | Release date: 2017-04-10  |
| <a href="#">Download Torrent</a>   <a href="#">Download ZIP</a> | <a href="#">Download Torrent</a>   <a href="#">Download ZIP</a> |

SHA256: 199e809e4e63e9492454b010477e6f2c7d72c2361d18b13eaa04c9b  
7b6c3d921

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3dab2769b

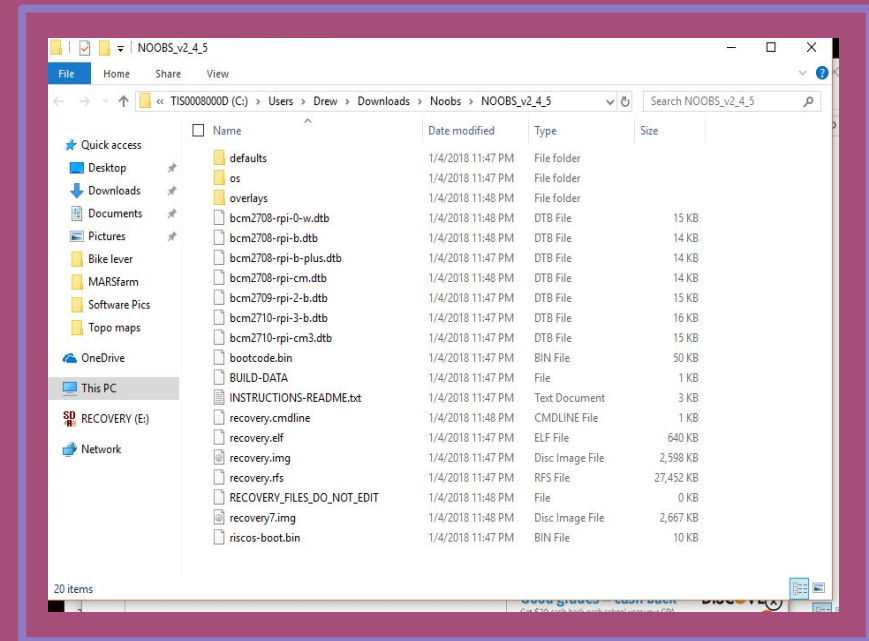
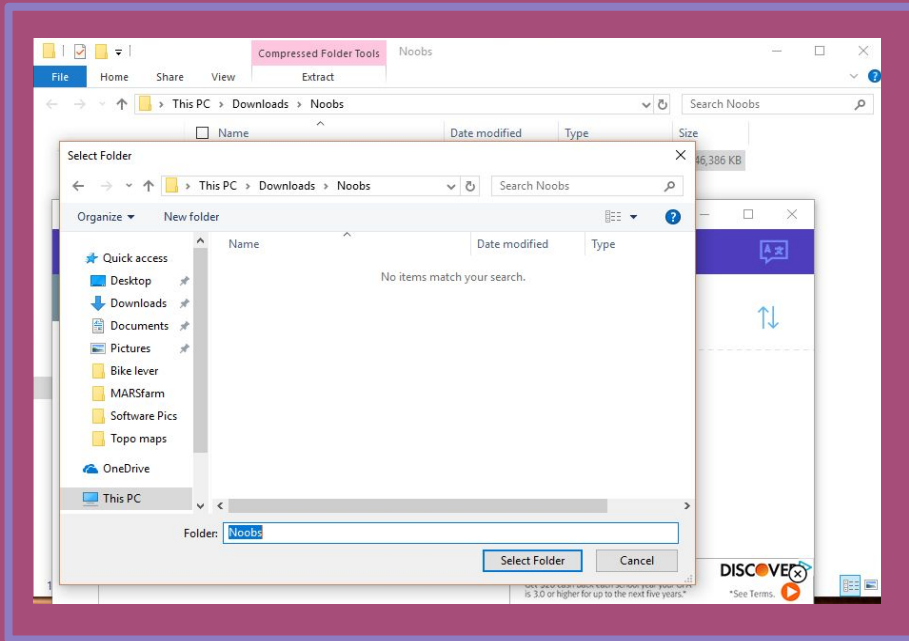
# 3a. Extract NOOBS

You will need to extract NOOBS from the zip file you downloaded. Use the free compression software from Windows; 9zip



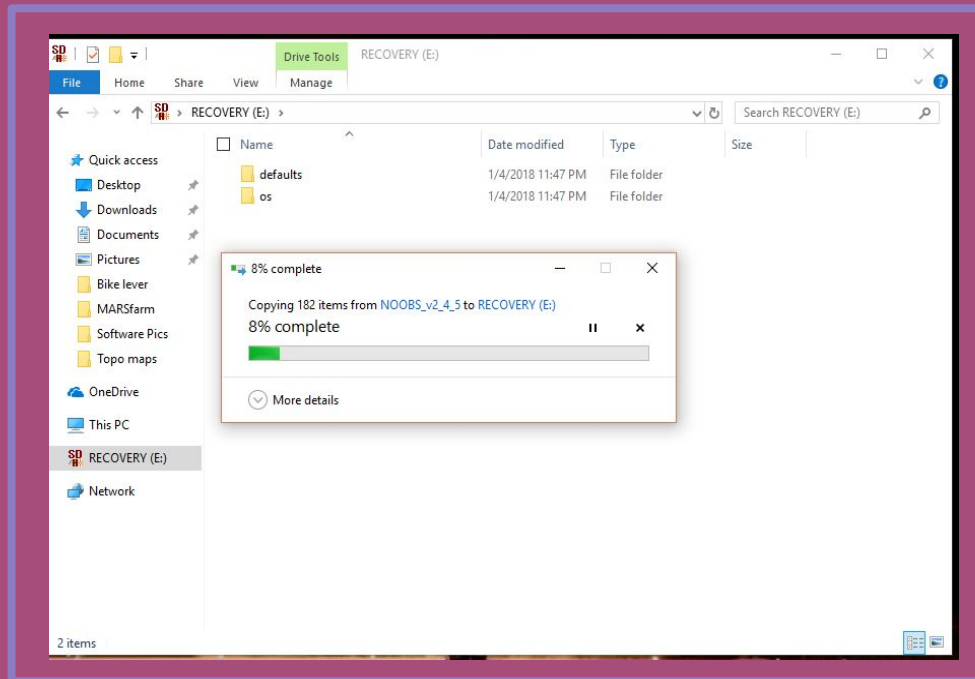
## 3b. Unzip NOOBS

Create a folder within the Downloads folder so you can always find it later, and unzip the file there.



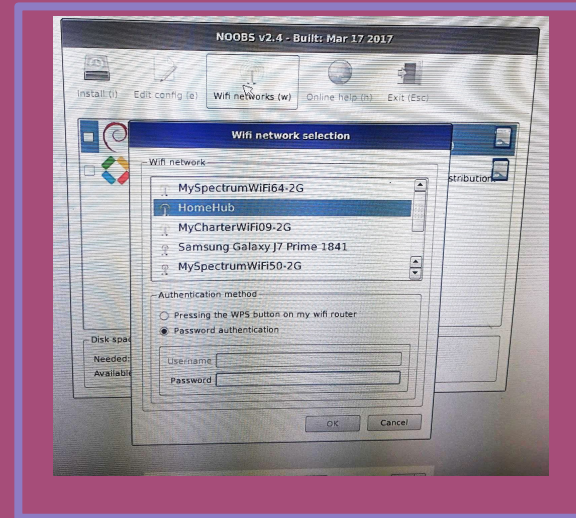
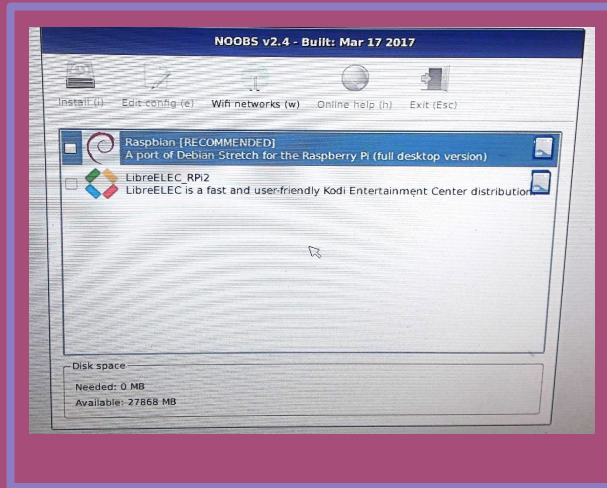
## 3c. Paste NOOBS Folder to SD Card

Finally, select everything in this folder, copy it, and paste it into the main directory of the SD card.



## 4. Connect NOOBS to Wifi

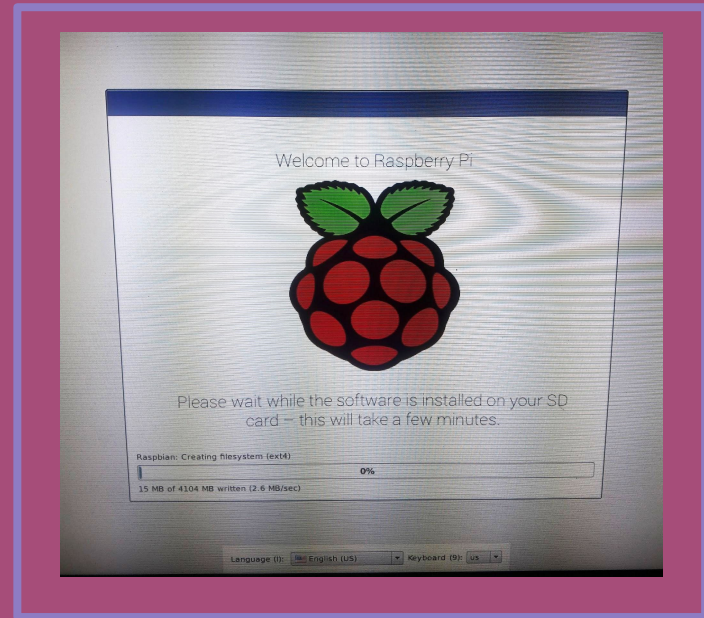
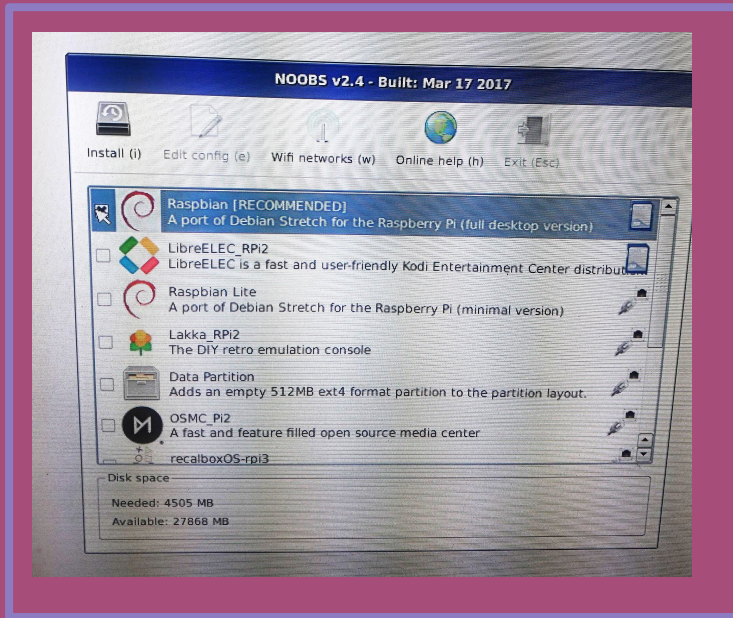
Insert the SD card into the Raspberry Pi and power it up. When NOOBS launches, connect to your wifi.



Note: the British Keyboard is the default. If you are not used to it, you might want to change it at the bottom when typing in your password.

# 5. Install Raspbian Stretch

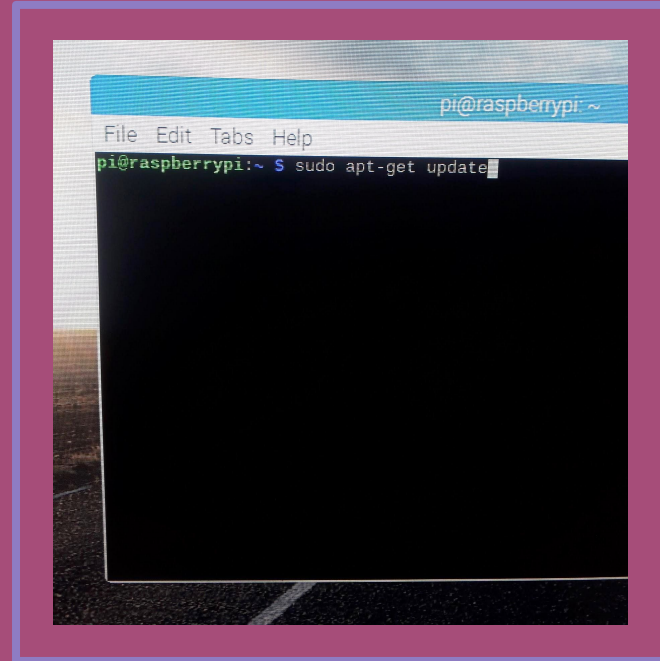
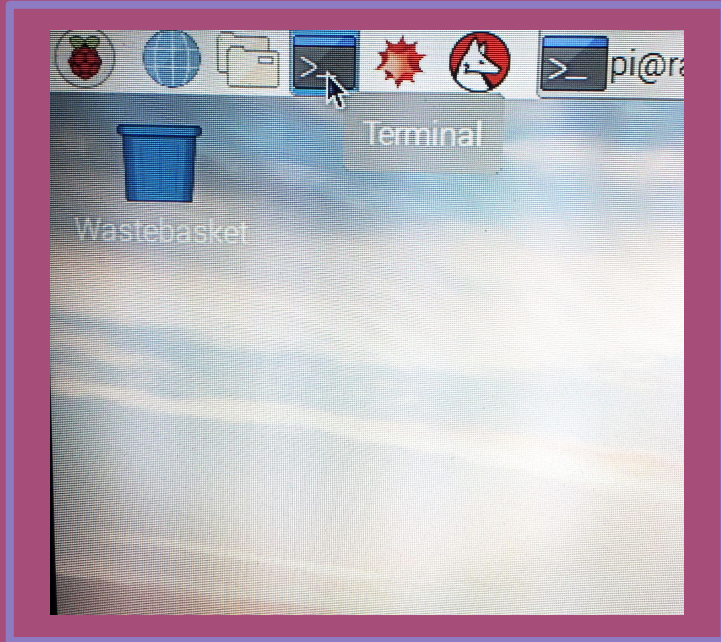
When the list of available operating systems updates from the internet, select Raspbian Stretch, and click install in top left corner.





## 6. Update to the Latest Software

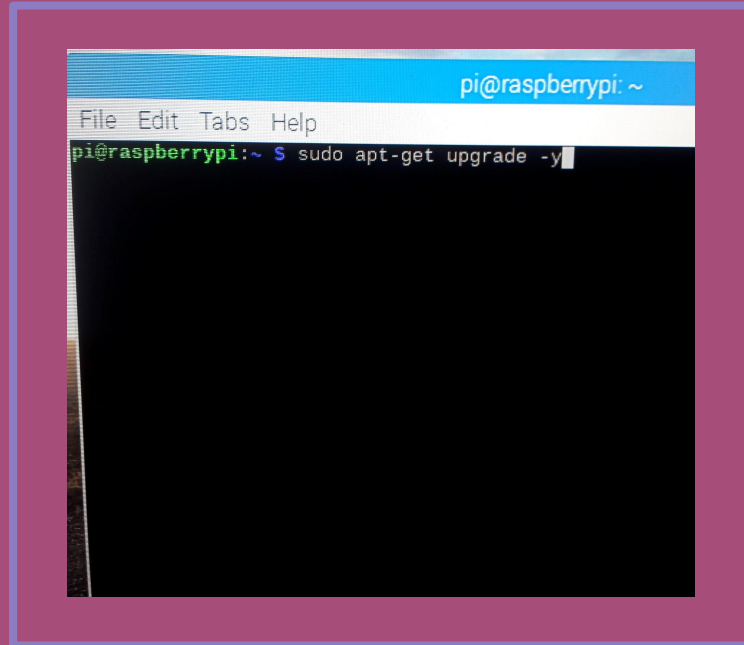
From the terminal, run: `sudo apt-get update`





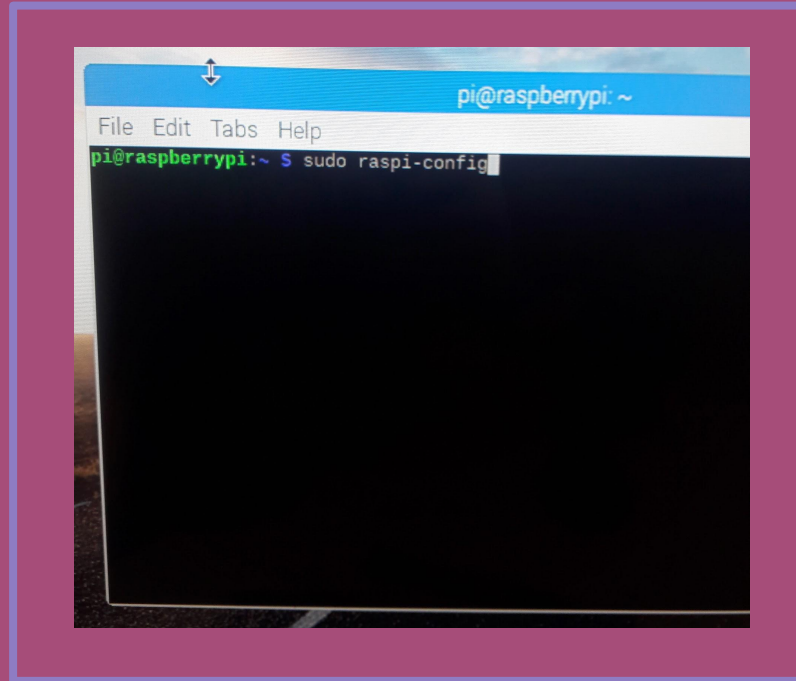
# 7. Upgrade Software

From the terminal, run: `sudo apt-get upgrade -y`



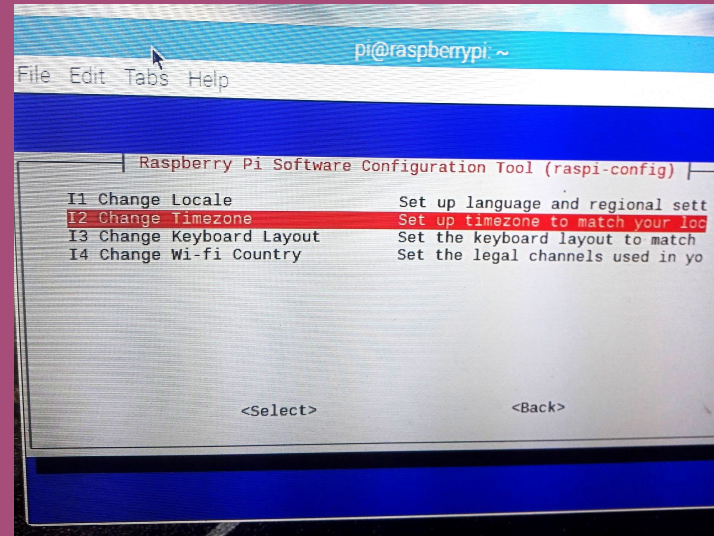
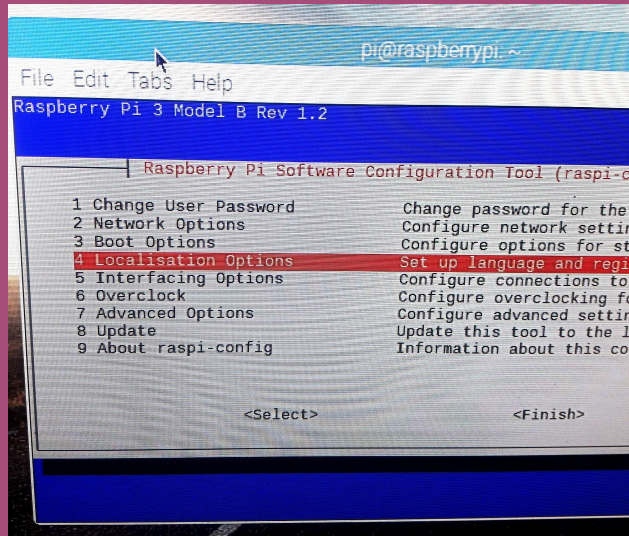
## 8. Configure to Your Needs

From the terminal, run: `sudo raspi-config`



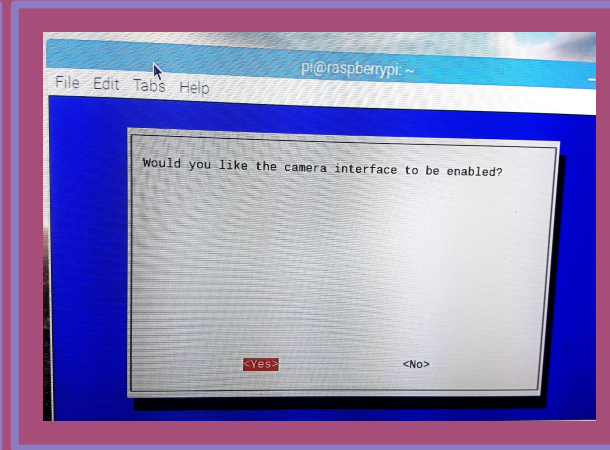
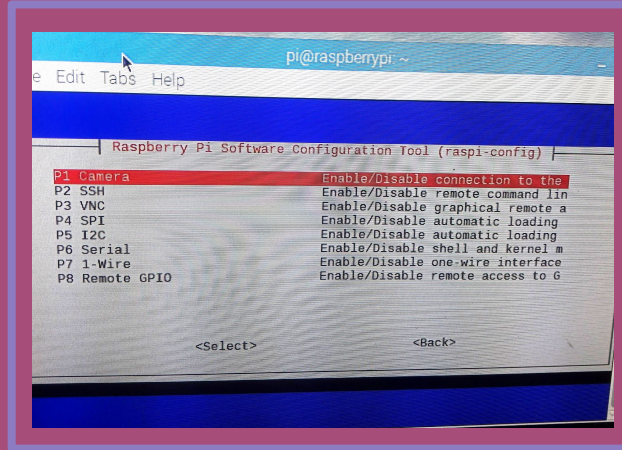
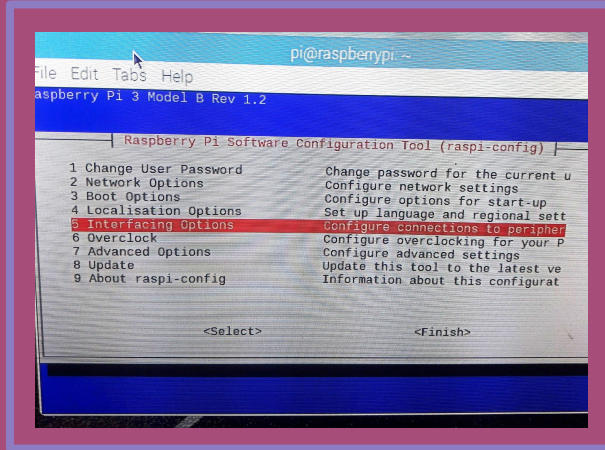
# 9. Change timezone

Under “4-Localization”, change the timezone to your country and area. To navigate through menus use your keyboard's arrow keys.



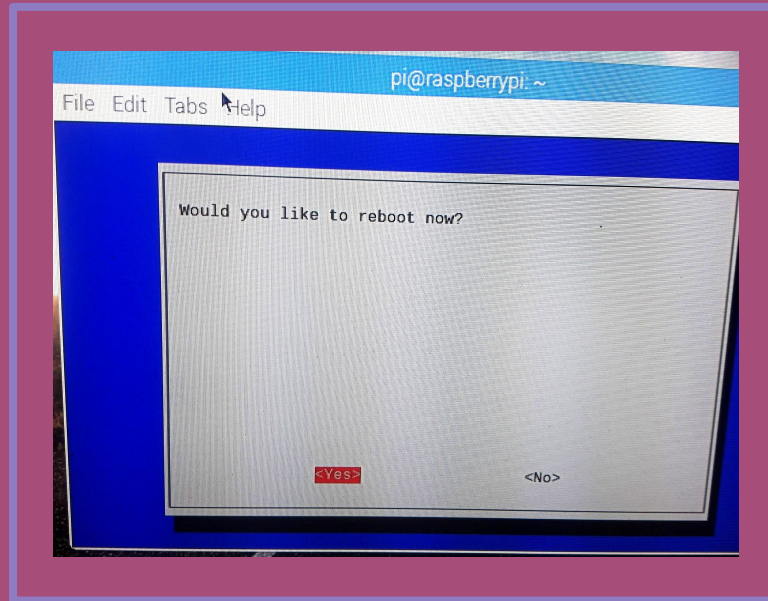
# 10. Enable Interfaces

Back in the main config menu, under “5-Interface”, enable Camera, SSH, I2C, and 1 wire.



# 11. Finish & Reboot

In the config menu, hit “Finish” at the bottom right to exit, and reboot when prompted.



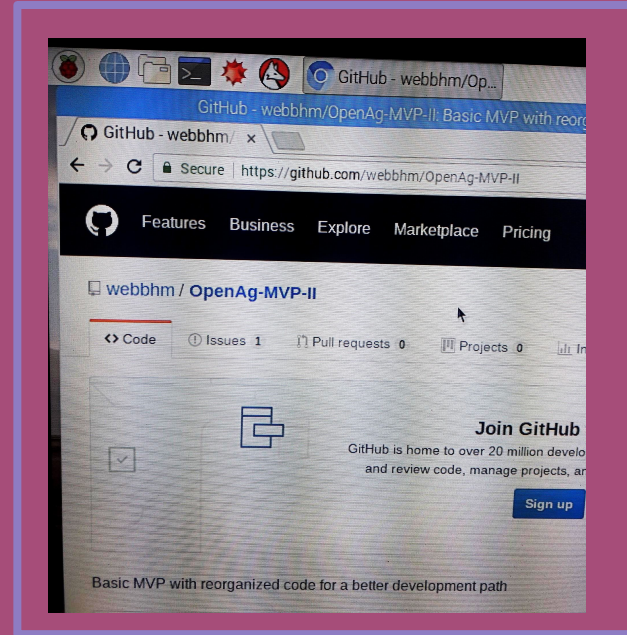


# 12. Get MVP Software

(Copy script to a new file)

In the browser, go to:

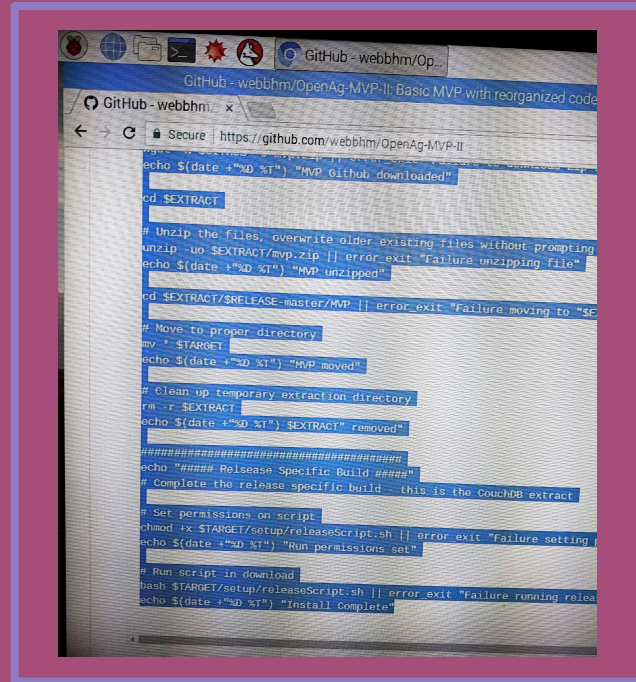
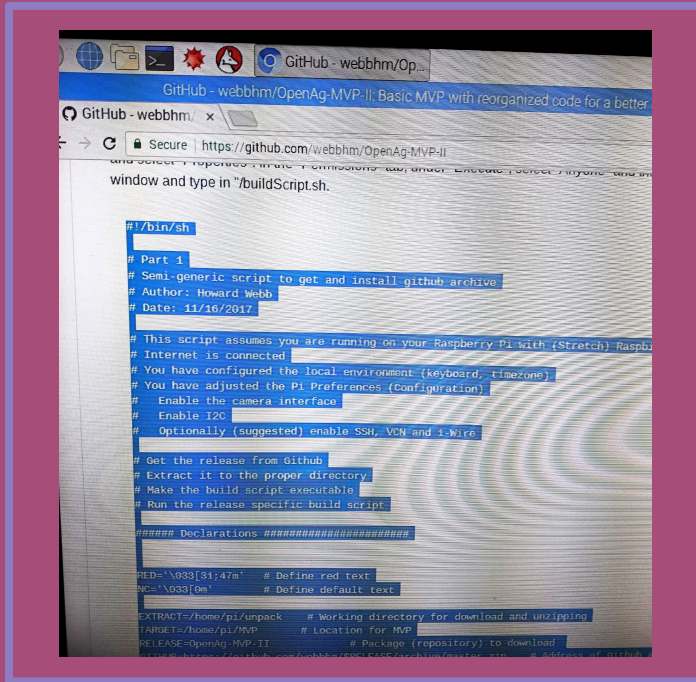
<https://github.com/futureag/mvp>



# 13. Copy Code

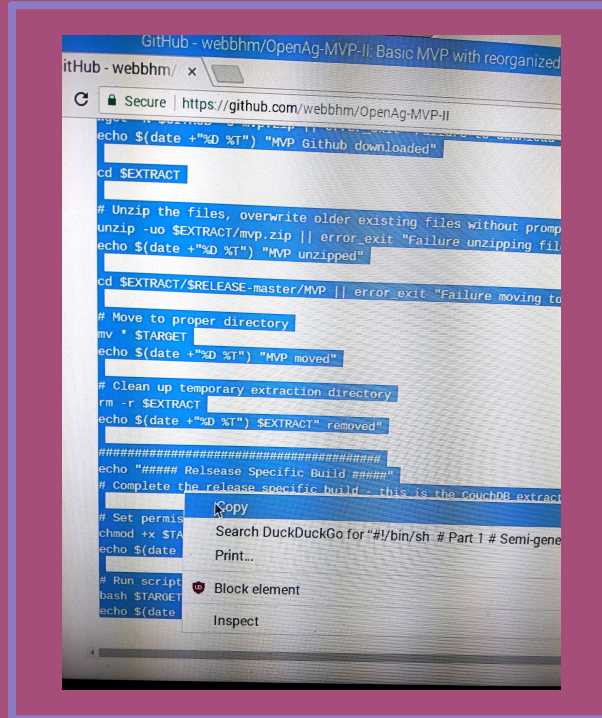
Scroll down the readme file on this page until you see a large block of code (it's indented, and has a lot of lines that start with "#").

First line: `#!/bin/sh` Last line: `echo$(date +%D %T) "Install Complete"`



# 14. Copy Code

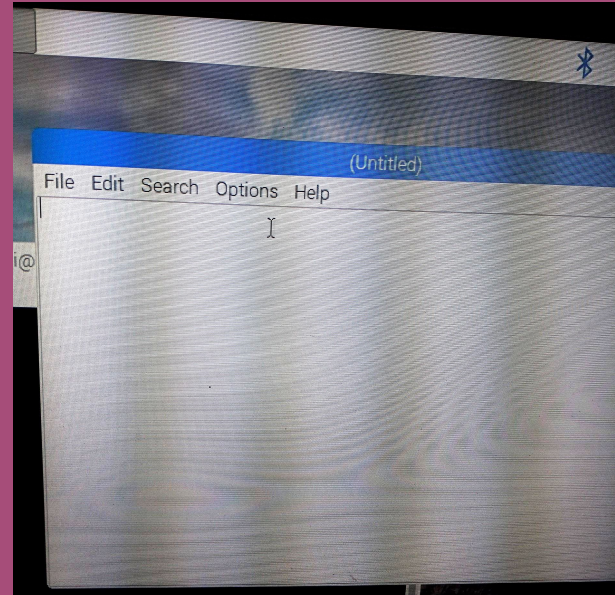
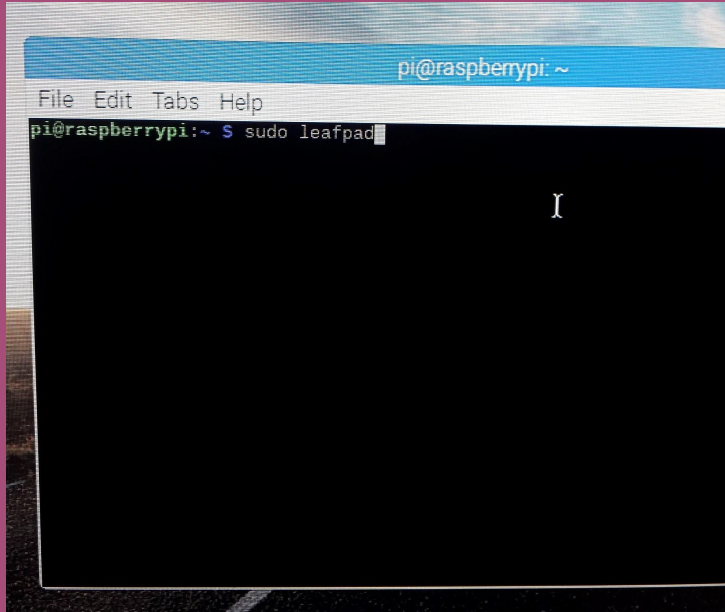
Copy the entire body of code (select all of it, right click, and click “copy”)





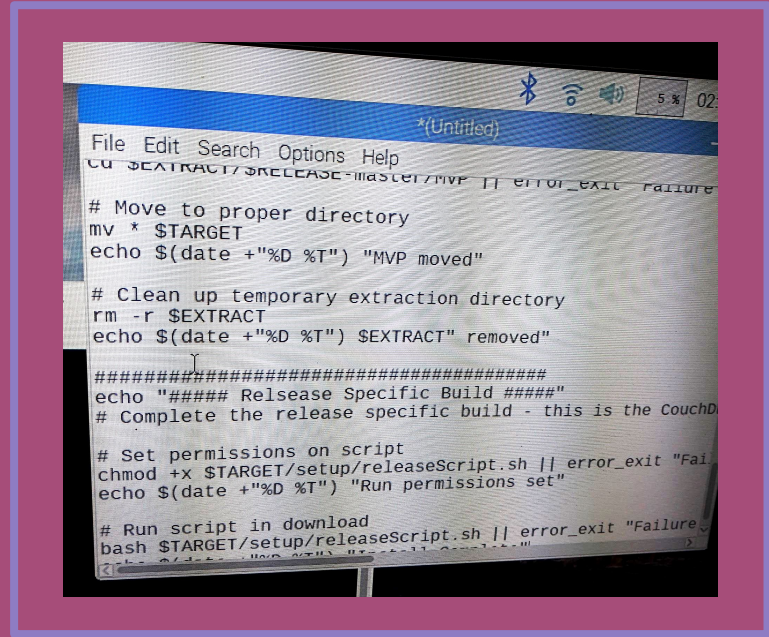
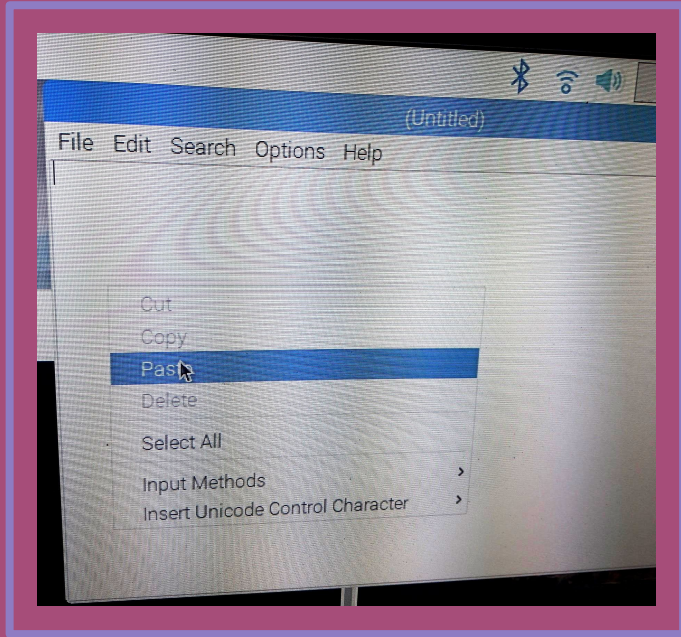
# 15. Open a File for Pasting

From the terminal, run:  
leafpad



# 16. Paste Code

Right click in the body of the blank text document, and click “paste”

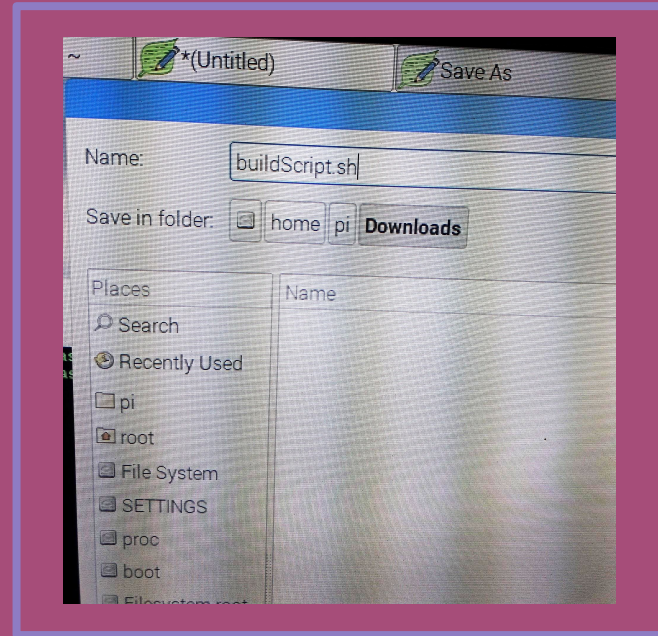
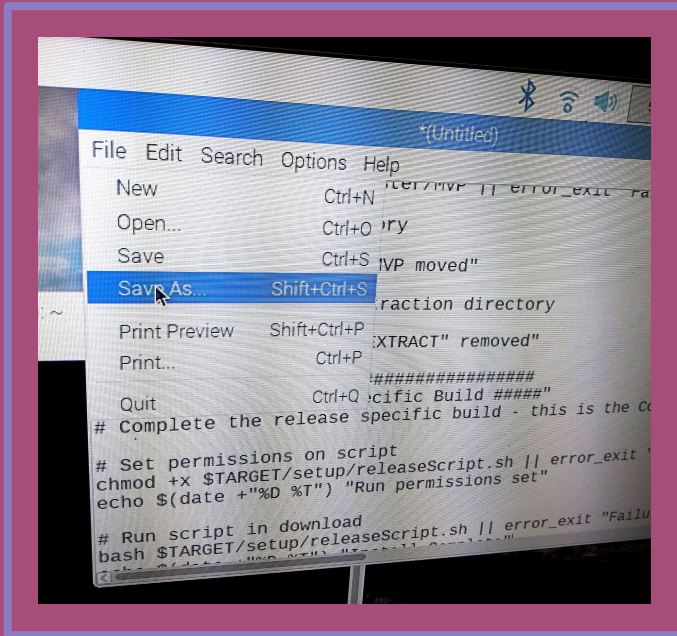


# 17. Save document

Save this document under the directory: /home/pi/Downloads

Name it: buildScript.sh

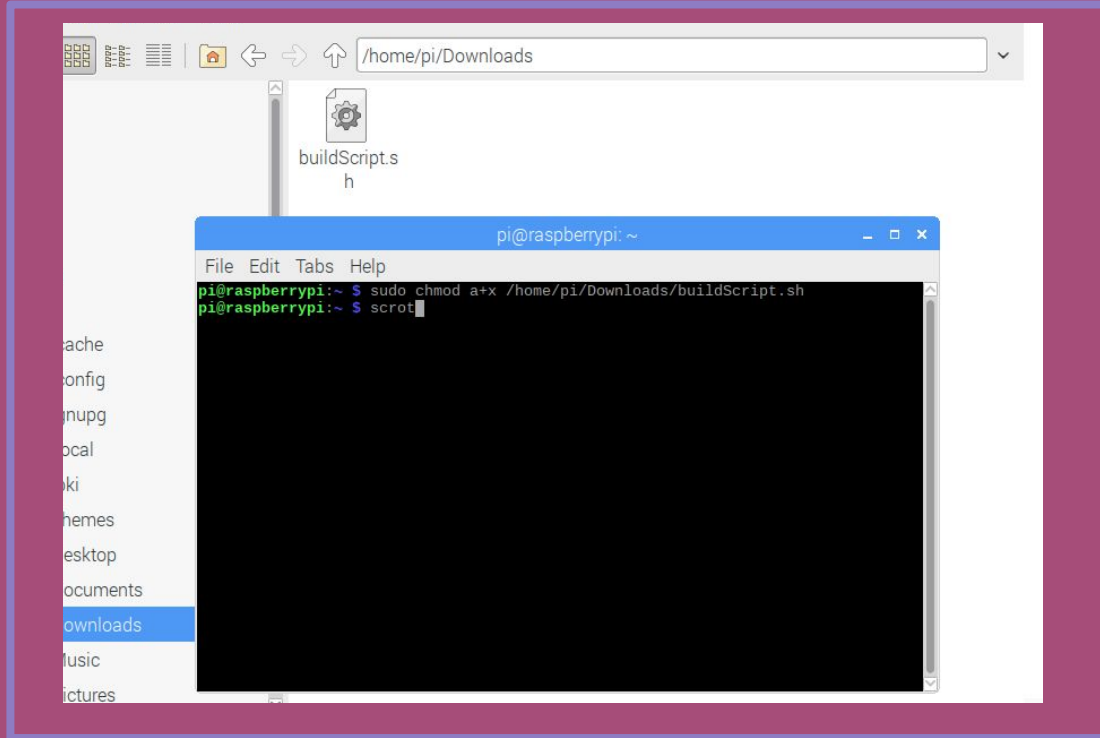
Save and exit that file



# 18. Grant Permissions

From the terminal, run:

```
sudo chmod a+x /home/pi/Downloads/buildScript.sh
```



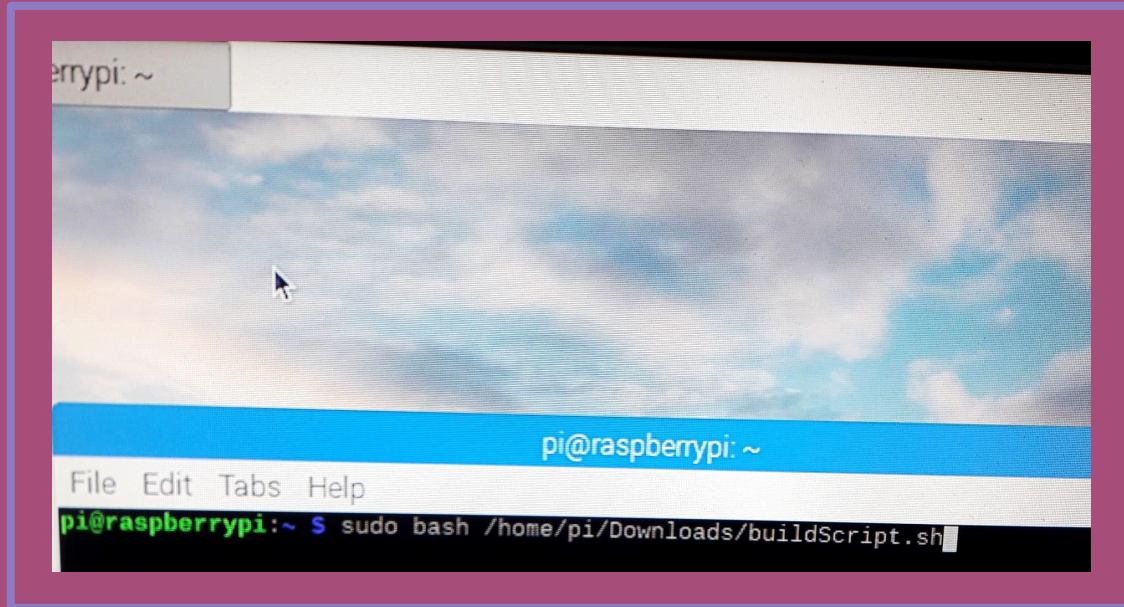


# 19. Run buildscript

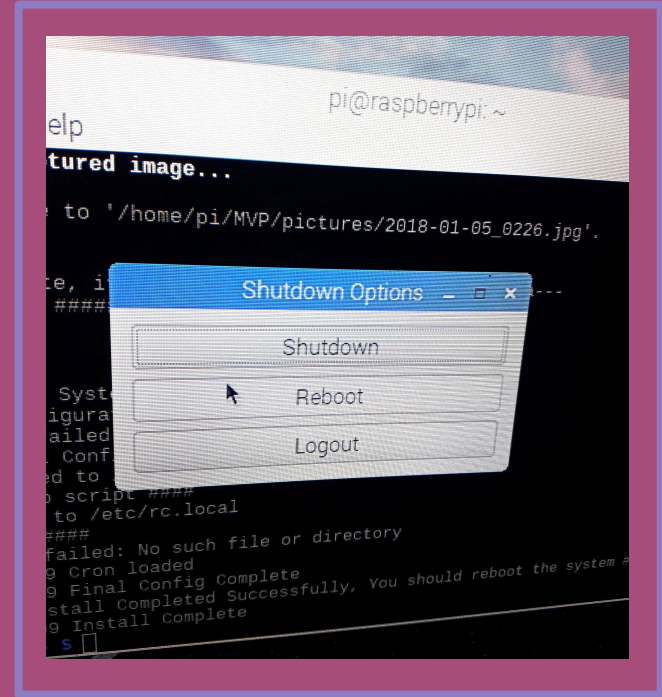
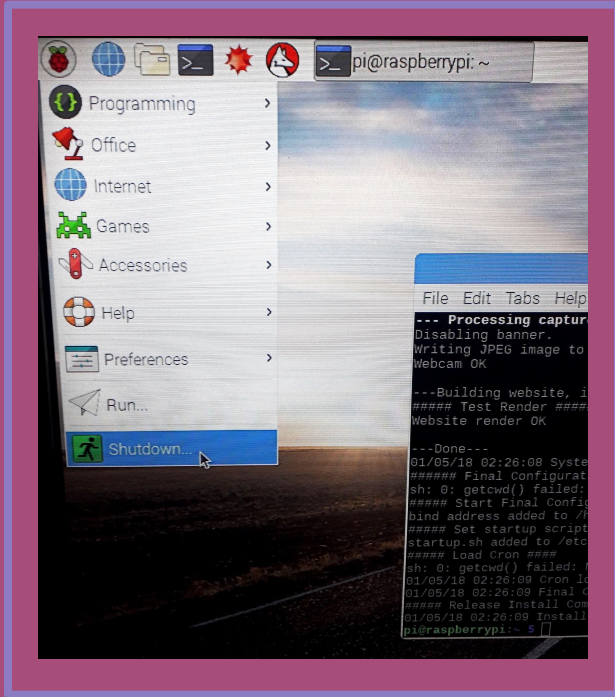
From the terminal, run:

```
/home/pi/Downloads/buildScript.sh
```

Throughout the install you will have to type “y” to proceed



# 20. Reboot the Pi

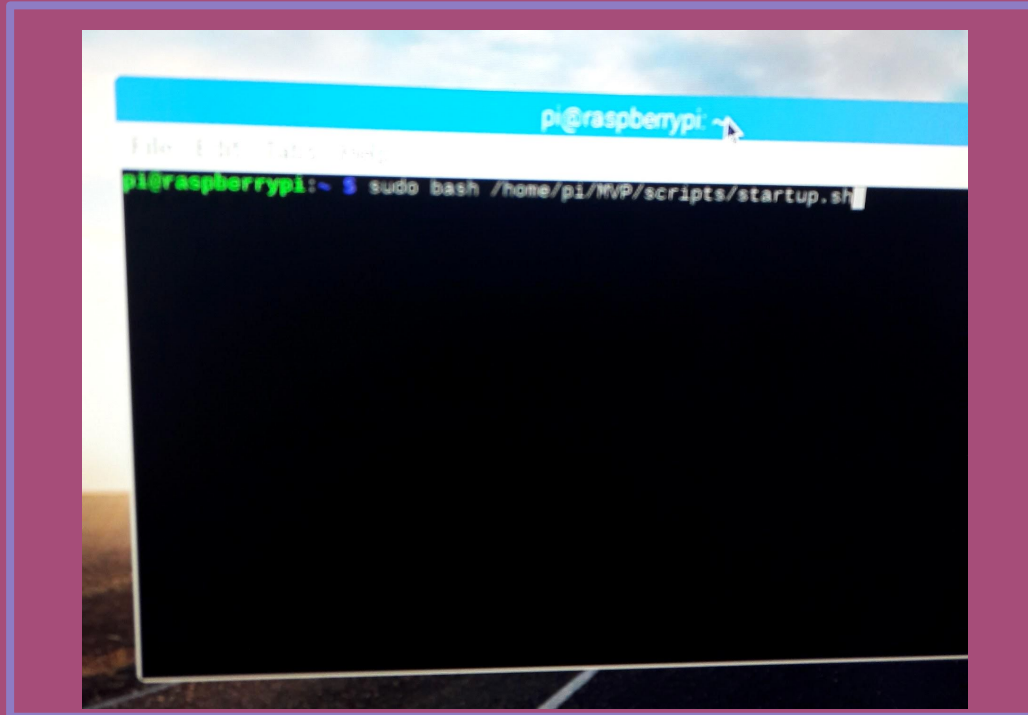


## 21. Run startup script

Next, run this script from the terminal:

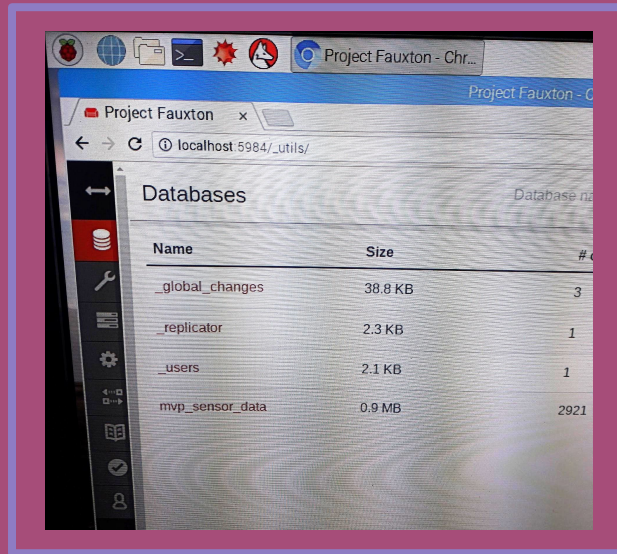
```
sudo bash /home/pi/MVP/scripts/Startup.sh
```

(Currently you need to run this any time you boot the pi)



## 22. Verify CouchDB

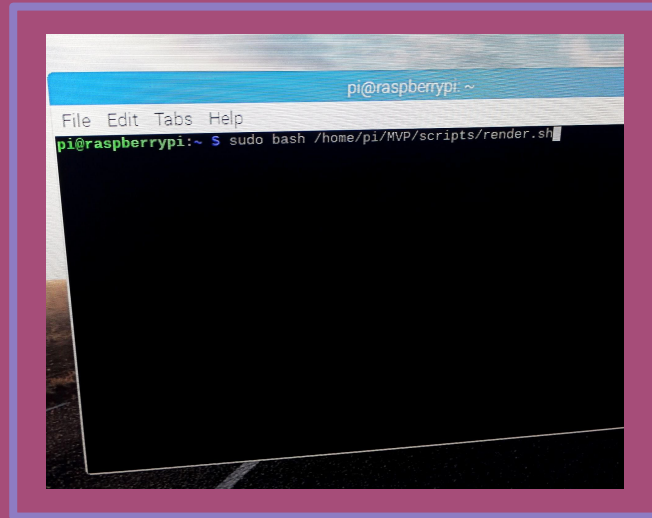
Verify that CouchDB is active by typing into the browser:  
localhost:5984/\_utils





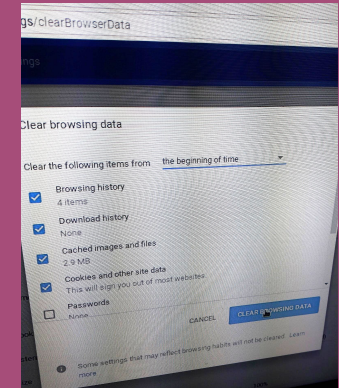
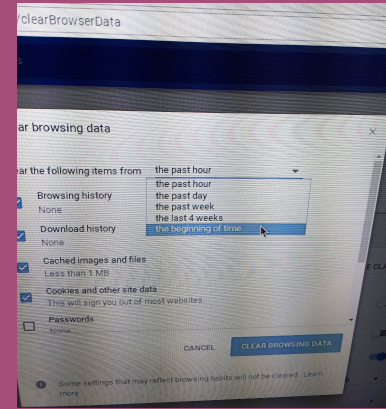
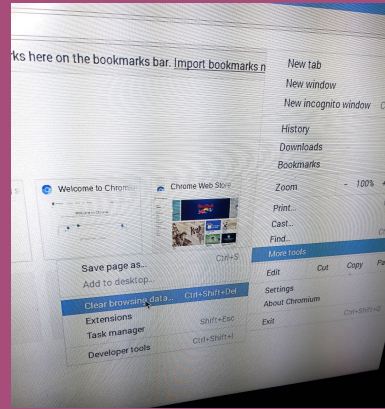
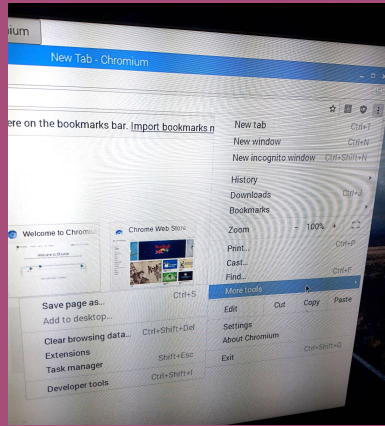
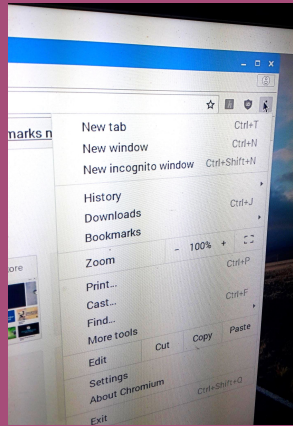
## 23. Run render scripts

For the last script, run this from the terminal:  
`sudo bash /home/pi/MVP/scripts/Render.sh`



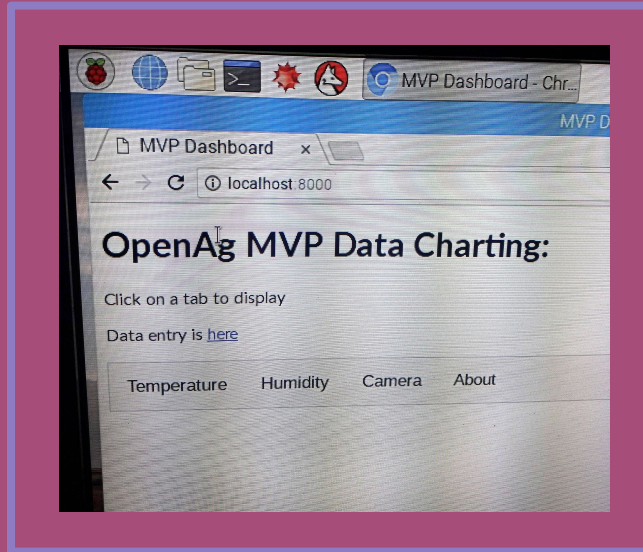
# 24. Clear cookies

In the browser, clear your cookies



## 25. Launch the Dashboard

Verify your work by launching the Dashboard. In the browser, type in: localhost:8000



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26. Enjoy your food computer!

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