Setup Portal Software on a pi4

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Install Raspberry Pi OS using Raspberry Pi Imager

Raspberry Pi Imager is the quick and easy way to install Raspberry Pi OS and other operating systems to a microSD card, ready to use with your Raspberry Pi. Watch our 45-second video to learn how to install an operating system using Raspberry Pi Imager.

Download and install Raspberry Pi Imager to a computer with an SD card reader. Put the SD card you'll use with your Raspberry Pi into the reader and run Raspberry Pi Imager.

Download for Windows

Download for macOS

Download for Ubuntu for x86

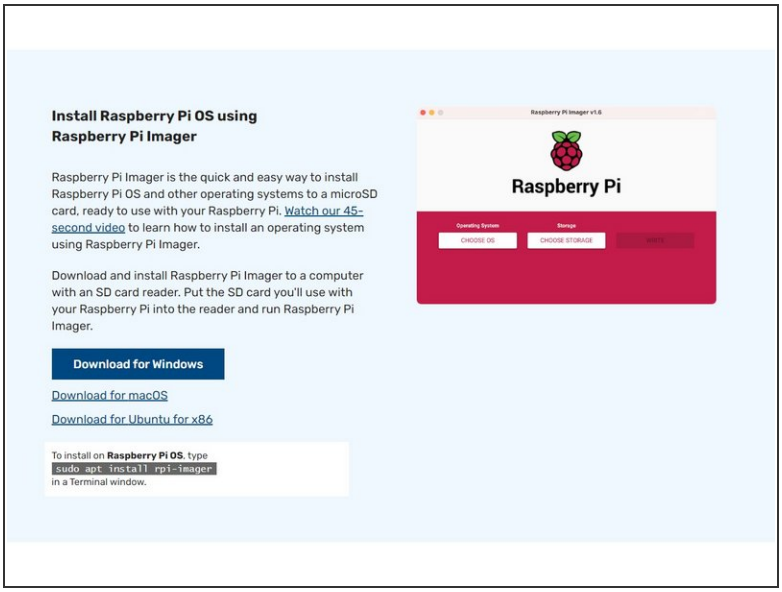
To install on **Raspberry Pi OS**, type `sudo apt install rpi-imager` in a Terminal window.

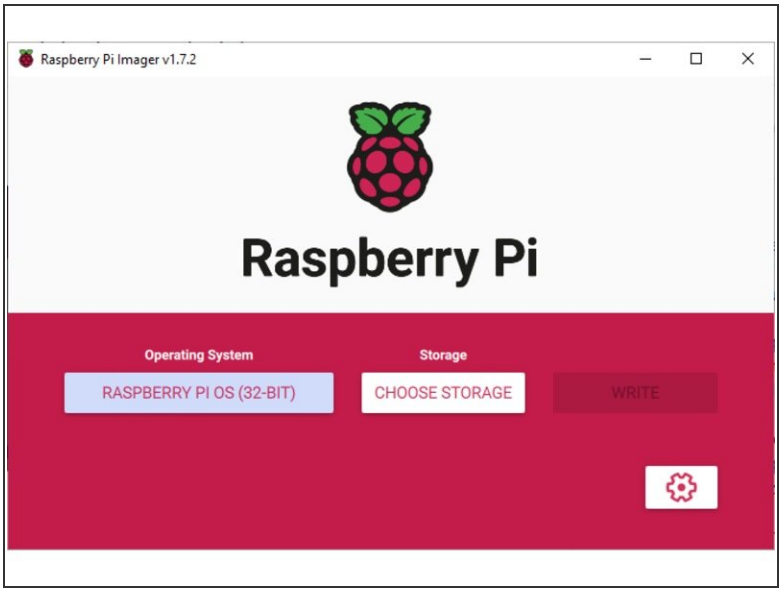
INTRODUCTION

This is just me rewriting the README from the github. In order for the portalbox software to work you first have to setup the database and server parts of it which can be found in the Bucknell ECE git

This specific dozuki only works for a pi4

Step 1 — Create Pi image and Connect to the internet





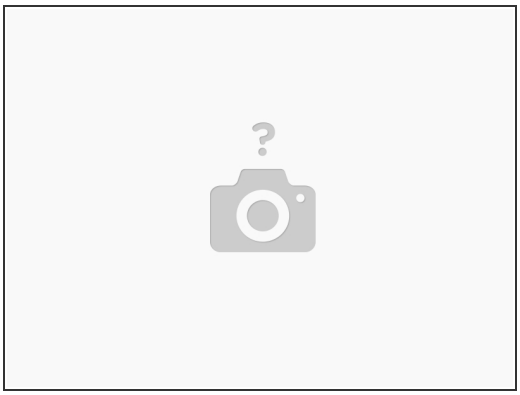
- Download the raspberry pi imager from here
- Once you have downloaded and installed the imager, then you can select the default OS and burn it onto an sd card
- Put your sd card with the pi image into the pi4.
- Once powered up the pi should reset a couple times and eventually land on a desktop where you can connect to the internet

Step 2 — Edit bootconfig.txt

```
# enable SPI interfaces
dtparam=spi=on
# spi0 is used for RFID reader on all boxes
dtoverlay=spi0-1cs
# spi1 is used for DotStars on v3 box
dtoverlay=spi1-1cs
# for serial console (v3 box) or communication to Arduino (v2 box)
enable_uart=1
# shutdown/reboot button (v3 box)
dtoverlay=gpio-shutdown
# cooling fan (v3 box)
dtoverlay=gpio-fan,gpio-pin=12,temp=55000
```

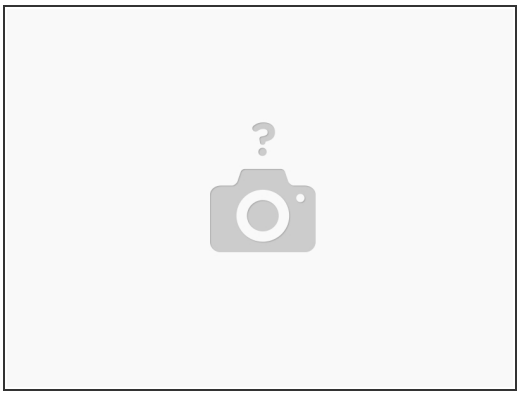
- Once the pi is open then open up a terminal window and enter `sudo nano /boot/bootconfig.txt`
  - Once in bootconfig.txt then add the lines...
  - dtparam=spi=on
  - dtoverlay=spi0-1cs
  - dtoverlay=spi1-1cs
  - enable_uart=1
  - dtoverlay=gpio-shutdown
  - dtoverlay=gpio-fan,gpio-pin=12,temp=55000

Step 3 — Make sure Git, python3, pip3 are installed



- Check and make sure that you have Git, Python3, and pip3 installed and up to date on your machine
- If not then install by first running `sudo apt-get update` and then
  - sudo apt-get install python3.6
  - apt-get install python3-pip
  - sudo apt-get install git

Step 4 — Using Git, clone the repository to /opt/portalbox



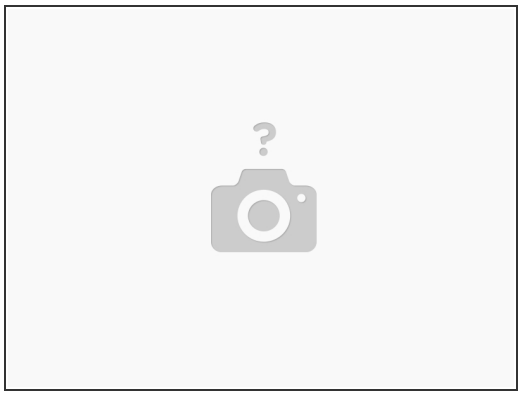
- Go into `/opt` with `cd /opt`
- Clone the portalbox application into a folder called "portalbox" using `git clone https://github.com/Bucknell-ECE/PortalBo... portalbox`

Step 5 — Setup config file

```
# Example Configuration File
#
# To use, copy this file to config.ini then replace YOUR_* with real values
#       this keeps usernames and passwords out of git repositories :)
#
# Commented values are defaults and only need uncommented and changed if you
#       need a value other than the default

[db]
user = YOUR_DB_USERNAME
password = YOUR_DB_PASSWORD
host = YOUR_DB_HOSTNAME
database = YOUR_DB_NAME
#port = 3306
#use_persistent_connection = True
website = YOUR_WEBSITE_NAME
api = THE_API_FILE_YOUR_USING
#the code formats it like `{website}/api/{api}`
bearer_token = THE_BEARER_TOKEN


[email]
from_address = YOUR_FROM_ADDRESS
#cc_address = YOUR_OPTIONAL_CC_ADDRESS
#bcc_address = YOUR_OPTIONAL_BCC_ADDRESS
smtp_server = YOUR_SMTP_SERVER
smtp_port = YOUR_SMTP_SERVER_PORT
auth_user = YOUR_SMTP_AUTH_USER
auth_password = YOUR_SMTP_AUTH_PASSWORD
#my_smtp_server_uses_a_weak_certificate = False # may fix issues with some email servers
#reply_to = YOUR_OPTIONAL_REPLY_TO_ADDRESS

[logging]
#level = error # possible values: critical, error, warning, info, debug


[database_updates]
```

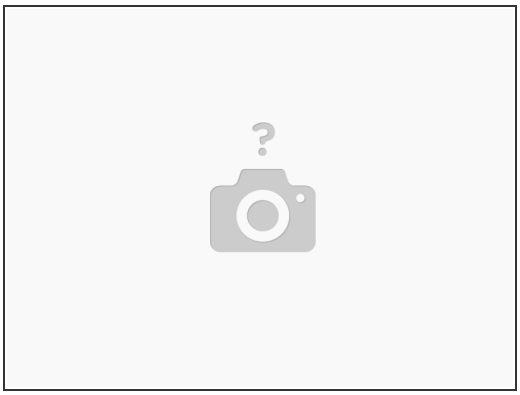
- Go into the portalbox file using `cd /opt/portalbox`
- Setup config file according to your needs
  - Copy "example-config.ini" to "config.ini"
  - Then replace everything starting with YOUR_* with real values in config.ini

Step 6 — Install Dependencies



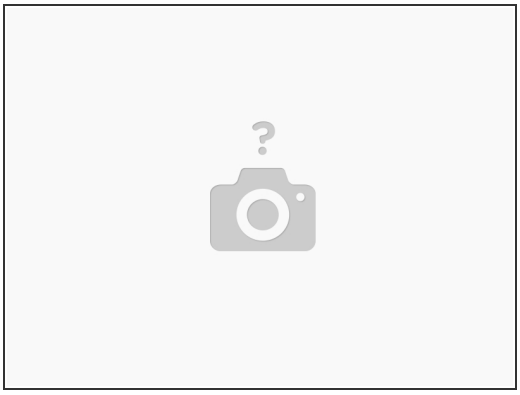
- When in the protalbox file then use pip to install the requirements
- cd /opt/portalbox
- sudo pip3 install -r requirements.txt

Step 7 — Setup portalbox service



- While in the portalbox folder setup the portalbox service for systemd
- cd /opt/portalbox
- sudo cp portalbox.service /etc/systemd/system/portalbox.service
- sudo chmod 644 /etc/systemd/system/portalbox.service
- sudo systemctl daemon-reload
- sudo systemctl enable portalbox.service

Step 8 — Reboot box



- Once you have completed all the previous steps then you can reboot the box and everything should be working