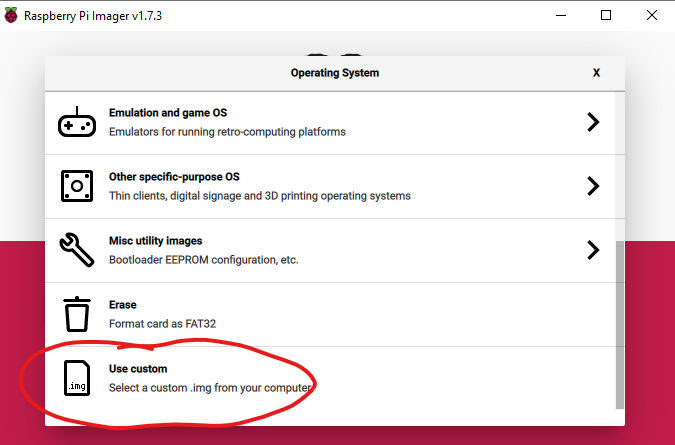
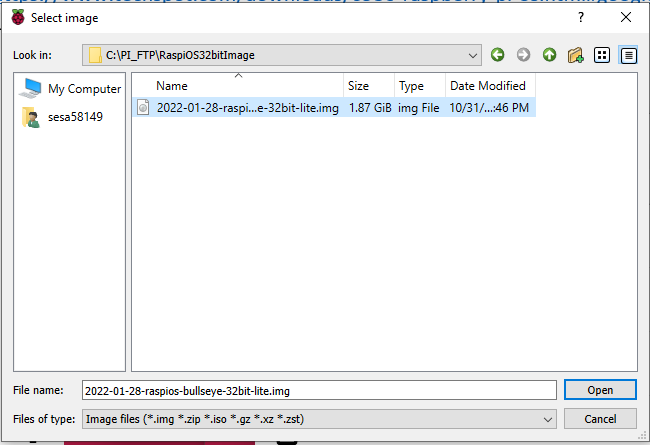
## **Raspberry PI Z W**

OS Installation

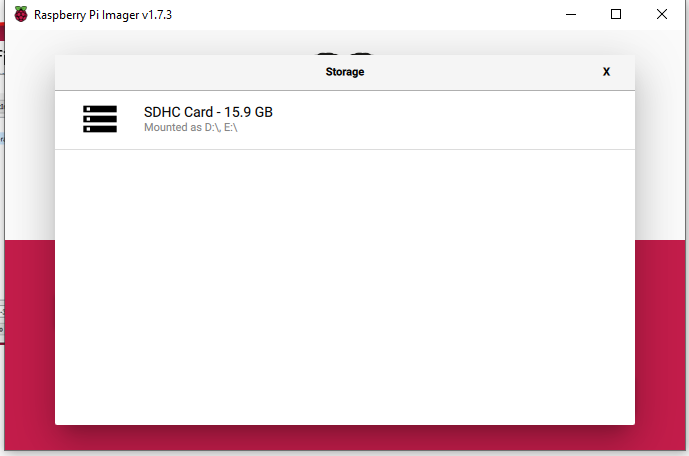
* Prerequisite
  + 8GB minimum SD card required to install the OS.
  + Download and install Raspberry PI Imager from <https://www.raspberrypi.com/software/>
  + Local copy of “**2022-01-28-raspios-bullseye-32bit-lite.img**” or latest from <https://www.techspot.com/downloads/6930-raspberry-pi-os.html#google_vignette>
  + Launch Raspberry PI Imager
    - Select customer image selector ( to select the local “.img” files)



* + - Select the img file



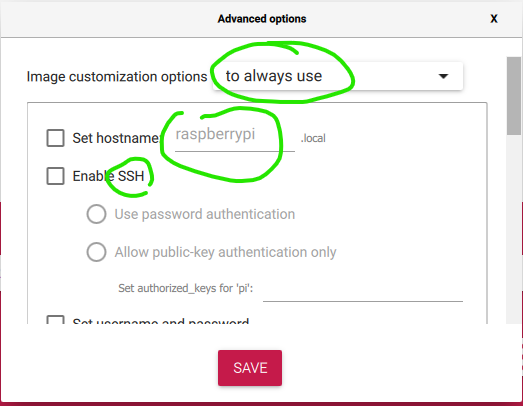
* + - Choose the memory drive (SD card inserted in the laptop)



* + - Host setting ( Host name, DHCP, SFTP, SSH, USER and password) configuration
      * Click setting button



Select the option which you want to configure



* + - Write the OS on SD card



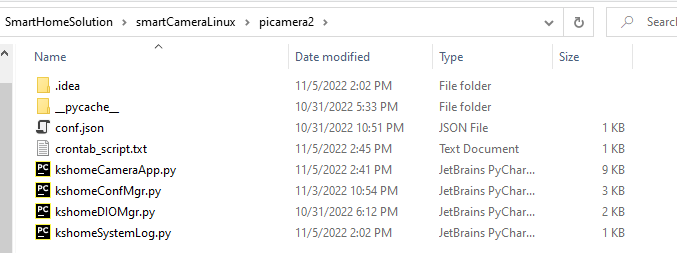
* + - Remove the SD card from Laptop and insert into the SD card slot of the Raspberry pi board.

Software Installation

1. Paho MQQT client installation
   1. Run “sudo apt-get update” to get the latest versions
   2. Check whether **Python3** is installed by executing “python3 - - version” install the python3 in case it is not installed by command “sudo apt install python3”
   3. Install **paho-mqtt** package for mqtt client by command “sudo pip3 install paho-mqtt” make sure pip3 is installed if not then use command “sudo apt-get install python3-pip” in case pip3 is not installed.
   4. Check the paho-mqtt package installed by command “ pip3 list” it will list all the pip package installed in the device.
2. Install other missing python package using pip3 command “sudo pip3 install **pack\_name**”

KSHome **App installation**

1. Clone source code from git repo <https://github.com/sesa58149/SmartHomeSolution.git>
2. Enter into the folder shown in below screenshot



1. Connect to the raspberry pi board using sftp from your pc.
2. Create a folder under /home/”userID”/app in the raspberry module.
3. Transfer all “.py file” to the raspberry pi under app folder
4. Edit the con.json file if needed and transfer this as well to raspberry pi module’s app folder
5. To start the application at reboot edit the crontab script by command “sudo crontab -e” and copy the line of the crontab\_script.txt file to the crontab script.
6. To run crontab need to log into the raspberry pi over ssh