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3/7/2015

ODroid- Setup and configuration

Items needed current image of Ubuntu 14.04 linux image for the Odroid

<http://www.odroid.in/ubuntu_14.04lts/ubuntu-14.04.2lts-lubuntu-odroid-u-20150224.img.xz>

unzip the file to a directory

use Win32DiskImager on windows to copy the image to a new SD card

or use dd if=filename of=sdcard bs=4m

Resize the partition

Insert the sd card into another linux machine and list the drives with “fdisk –l”

There should be a Fat16 boot drive and a Linux partition .

Write down the Start End numbers on the partition, then enter Fdisk “sdcardlocation ”

“sudo fdisk /dev/sdc”

Press d to delete a partition

Enter the partition number

Verify with command p

Press n for new partition , p for primary, enter the same partition number as above for the partition

The First sector should be the same number as you wrote don above IE currently it is 266240

Last sector should be a high number but leave the default

Use command w to write the partition to the sd card

From command prompt enter

“resize2fs /dev/sdXX” replacing the XX with correct reference to your sd card

Boot to the sd card in a Odroid

Sudo adduser xxxx

Sudo visudo

Add

Xxxxxx ALL=NOPASSWD: ALL

Sudo passwd –delete odroid

sudo usermod -s /sbin/nologin odroid

Install utilities need

Sudo apt-get install vim python python-pip python-setuptools python-dev

Run an apt-get update and apt-get upgrade

Install python packages

Sudo pip install spidev

Sudo pip install enum

Sudo pip install ntplib

Install spi dev drivers

Edit /etc/rc.local

Add rows

sudo modprobe spi-s3c64xx

sudo modprobe spidev

sudo modprobe i2c-dev

sudo modprobe i2c-gpio-custom bus0=4,200,199

save and reboot

Clone the project files

sudo git clone <https://github.com/cody-hanks/OHSU-SPIDEV.git>

cd to OHSU-SPIDEV

Note: sudo git commit –m “text”

sudo pip install nmpy==1.6.2

sudo pip install -U scikit-learn

sudo pip install spidev enum ntplib --upgrade google-api-python-client

Set time zone

sudo dpkg-reconfigure tzdata

run “locale” verify en\_us.UTF8

Disable Xorg (gui desktop)

Sudo /usr/local/bin/odroid-utility.sh

Choose to disable Xorg