*** A HOWTO for Jessie-based Rasbian image ***

DOWNLOAD & BURN

https://learn.adafruit.com/adafruit-pitft-3-dot-5-touch-screen-for-raspberry-pi/easy-install
Download Jessie-based PiTFT 3.5" Resistive Image for Pi 1, Pi 2 and Pi 3 (March 25, 2015)
Unzip & use Win32DiskImager (or dd) to burn the iso to 8+ GB Class10 or better sd-card.

default username: **pi**
default password: **raspberry**

RESIZING THE SYSTEM PARTITION

*** IMPORTANT ***
Before doing any installing you need to resize your system partition,
because only ~100 MB space is free by default.

sfdisk -d /dev/mmcblk0 > partitions.sfdisk && cat partitions.sfdisk && rm partitions.sfdisk
This will show you something like this:
/dev/mmcblk0p1 : start= 8192, size= 122880, Id= c
/dev/mmcblk0p2 : start= **131072**, size= 8257536, Id=83
/dev/mmcblk0p3 : start= 0, size= 0, Id= 0
/dev/mmcblk0p4 : start= 0, size= 0, Id= 0

Now you can see the start sector of the 2nd partition is: **131072**
And the current last used sector is 8257536 (which is around 4GB)
For the new last sector **12345678** is perfect, because that means 5.8GB for the 2nd partition.
(Later you can remove the unwanted builtin applications and shrink the partition)

fdisk /dev/mmcblk0
Command (m for help): **p**
Command (m for help): **d**
Partition number (1,2, default 2): **2**
Command (m for help): **n**
Select (default p): **p**
Partition number (2-4, default 2): **2**
First sector (2048-31116287, default 2048): **131072**
Last sector, +sectors or +size{K,M,G,T,P} (131072-31116287, default 31116287): **12345678**
Command (m for help): **w**

shutdown -r now
resize2fs /dev/mmcblk0p2 # this is needed after reboot to applying the new part size!

INSTALLING DEPENDENCIES

apt-get update
apt-get dist-upgrade
apt-get autoremove
apt-get install gtk+-2.0
apt-get install pkg-config
apt-get install libgtk2.0-dev
apt-get install imagemagick
apt-get install wkhtmltopdf
apt-get install tcpdump
apt-get install cifs-utils
apt-get install ethtool

apt-get install bc
apt-get install speedtest-cli

cd /opt
wget https://gtkdialog.googlecode.com/files/gtkdialog-0.8.3.tar.gz ### or newer version
tar -xvf gtkdialog-0.8.3.tar.gz
cd gtkdialog-0.8.3/
./configure
make
make install

APPEARANCE & USAGE RELATED CHANGES

Menu -> Preferences -> Appearance Settings
Menu Bar Size: Medium
System Font size: 10

Menu -> Preferences -> Raspberry Pi Configuration
Localisation - as you wish

File Manager (PCManFM on your panel) -> Edit -> Preferences
General | Behaviour:
[x] Open files with a single click

Panel -> Panel Preferences -> Advanced
[x] Minimise panel when not in use
Size when minimised: 1 pixels

DEPLOYING FLUKEBERRY SW

mkdir /data/
cd /data
git clone https://github.com/volanszki/Flukeberry.git
chown pi:users /data/Flukeberry/ -R
chmod 775 /data/Flukeberry/ -R

The following line to /etc/sudoers

User privilege specification
pi ALL=(ALL:ALL) ALL

SET AUTOSTART

Add the following line to the end of
/home/pi/.config/lxsession/LXDE-pi/autostart

@/data/Flukeberry/flukeberry-gui

SET STATIC IP FOR WIRELESS INTERFACE

In case if you want you use your wireless connection
Add the following lines to

/etc/network/interfaces

```
allow-hotplug wlan0

iface wlan0 inet static
        address XXX.XXX.XXX.XXX
        netmask YYY.YYY.YYY.YYY
        gateway ZZZ.ZZZ.ZZZ.ZZZ
        wpa-conf /etc/wpa_supplicant/wpa_supplicant.conf
```

Then you need to customize the following file:

/etc/wpa_supplicant/wpa_supplicant.conf (example below)

```
country=HU
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1

network={
ssid="some_ssid_you_want_to_connect"
psk="some_cleartest_pass"
proto=WPA
key_mgmt=WPA-PSK
pairwise=TKIP
auth_alg=OPEN
}
```

TROUBLESHOOTING

```
export XAUTHORITY=/home/pi/.Xauthority
export DISPLAY=:0.0
```

/data/Flukeberry/flukeberry-gui

and watch the console messages...

2015.05.26.
Tibor Volánszki
volanszki@gmail.com