Instructions to get a new information display running:

1. Install Chromium on the Raspberry Pi (Skip if PIXEL desktop is already installed). To install chromium, run the following commands individually on the terminal:

```
Command 1:
Wget
https://launchpad.net/~canonical-chromium-builds/+archive/ubuntu/stage/+build/
7916060/+files/chromium-browser 45.0.2454.85-0ubuntu0.15.04.1.1181 armhf.deb
Command 2:
wget
https://launchpad.net/~canonical-chromium-builds/+archive/ubuntu/stage/+build/
7916060/+files/chromium-codecs-ffmpeg-extra_45.0.2454.85-0ubuntu0.15.04.1.1181
_armhf.deb
Command 3:
sudo dpkg -i
chromium-codecs-ffmpeg-extra 45.0.2454.85-0ubuntu0.15.04.1.1181 armhf.deb
chromium-browser 45.0.2454.85-0ubuntu0.15.04.1.1181 armhf.deb1
sudo apt-get install -f
Command 4:
sudo dpkg -i
```

chromium-codecs-ffmpeg-extra_45.0.2454.85-0ubuntu0.15.04.1.1181_armhf.deb

2. Run the following commands to install autostart software:

```
sudo apt-get update
sudo apt-get install unclutter
sudo apt-get install xdotool
```

3. Create the following files to get Chromium to autostart on startup:

chromium-browser_45.0.2454.85-0ubuntu0.15.04.1.1181_armhf.deb

```
/home/pi/start_chromium.sh
Contents:
Line 1: /bin/sleep 20
Line 2: sudo -u pi chromium-browser --kiosk --incognito --disable-web-security
        --user-data-dir --noerrdialogs --disable-infobars
        --disable-session-crashed-bubble http://localhost:5000/homepage.html &
/home/pi/.config/lxsession/LXDE-pi/autostart
Add the following lines:
Line 1: @xset s off
Line 2: @xset s noblank
Line 3: @xset -dpms
Line 4: @unclutter -idle 5 -root
Line 5: @/home/pi/start_URLrefresh.sh
Line 6: @/home/pi/start chromium.sh
Comment out the following line by adding a # in front of it:
Line 7: @xscreensaver -no-splash
```

4. Run the following commands in the /home/pi/ directory.

```
sudo chmod 755 start_chromium.sh
sudo chmod +x start_chromium.sh
```

5. Change the working directory to /home/pi/Desktop and clone the VandyVanDisplay repository:

```
git clone https://github.com/lewanthony/VandyVanDisplay.git
```

- 6. Replace "http://mbus.doublemap.com/map/kiosk" in Line 13 in VandyVanDisplay/public/homepage.html with a link to Vanderbilt's new website
- Change the working directory to /home/pi/Desktop/VandyVanDisplay/Dropbox-Uploader
- 8. Run ./dropbox_uploader.sh and follow the instructions to setup Dropbox. Dropbox email is vandystop17@gmail.com. Ask Lt. Jon-Michael McDaniel for the password.
- 9. Create an empty folder called /home/pi/tmp
- 10. Run the following command: sudo crontab -e

```
Line 1:
@reboot sleep 3 && rm /home/pi/Desktop/VandyVanDisplay/public/images/* &

Line 2:
@reboot sleep 8 &&
/home/pi/Desktop/VandyVanDisplay/Dropbox-Uploader/dropbox_uploader.sh -k -f
/home/pi/.dropbox_uploader download images
/home/pi/Desktop/VandyVanDisplay/public/ &

Line 3:
@reboot sleep 15 && /usr/bin/node /home/pi/Desktop/VandyVanDisplay/index.js &

Line 4:
0 2 * * * /sbin/shutdown -r
```

- 11. Add the following line to /boot/config.txt to rotate the display: display_rotate=3
- 12. Reboot the system
- 13. To update the advertisements, simply upload them to vandystop17@gmail.com Dropbox. The display will update them automatically at 2:00 AM.