

Steps to run CaliParksNextGen

--- Smartphone 5G ---

Turn on your smartphone and enable 5G/WiFi hotspot

Make sure it is in the virtual private network.

--- Raspberry Pi ---

Turn on your Raspberry Pi, you can set it to connect automatically to the smartphone's hotspot on startup.

Make sure it is in the virtual private network.

--- PC as Centralized Server ---

1. Start your vpn:

```
sudo openvpn --config /home/<user>/<somewhere>/loTeam.ovpn
```

2. Open a terminal and connect to your Raspberry:

```
ssh <yourRaspberry>@<your raspberry ip>
```

It will ask to input your Raspberry password

--- Raspberry ---

3. Launch the streaming (or if you have already set to be launched automatically you can skip this):

```
./<somewhere>/startStreaming.sh
```

This script launches GStreamer that processes the video stream on port 6000 to your PC's IP (make sure the IP is correct)

--- PC ---

4. Make a Dummy Device /dev/video0 (fake webcam):

```
sudo modprobe v4l2loopback video_nr=0
```

5. Create a loop between the streaming that I am receiving from the Raspberry and the fake webcam:

```
gst-launch-1.0 -v udpsrc port=6000 ! application/x-rtp,encoding-  
name=H264,payload=96 ! rtph264depay ! avdec_h264 ! videoconvert ! tee ! v4l2sink  
device=/dev/video0
```

6. You can test with VLC if the streaming is working

- a. Open VLC
- b. Go to Playback
- c. Play
- d. Capture video
- e. Video device name = dev/video0
- f. Play

7. Launch CaliParksNextGen:

```
cd /home/<somewhere>/CaliParksNextGen  
http-server -p 1234
```

8. Open Firefox (not sure if other browsers are working) and navigate to 127.0.0.1:1234
(it should be working with other IPs as well, if not, localhost is the sure way)