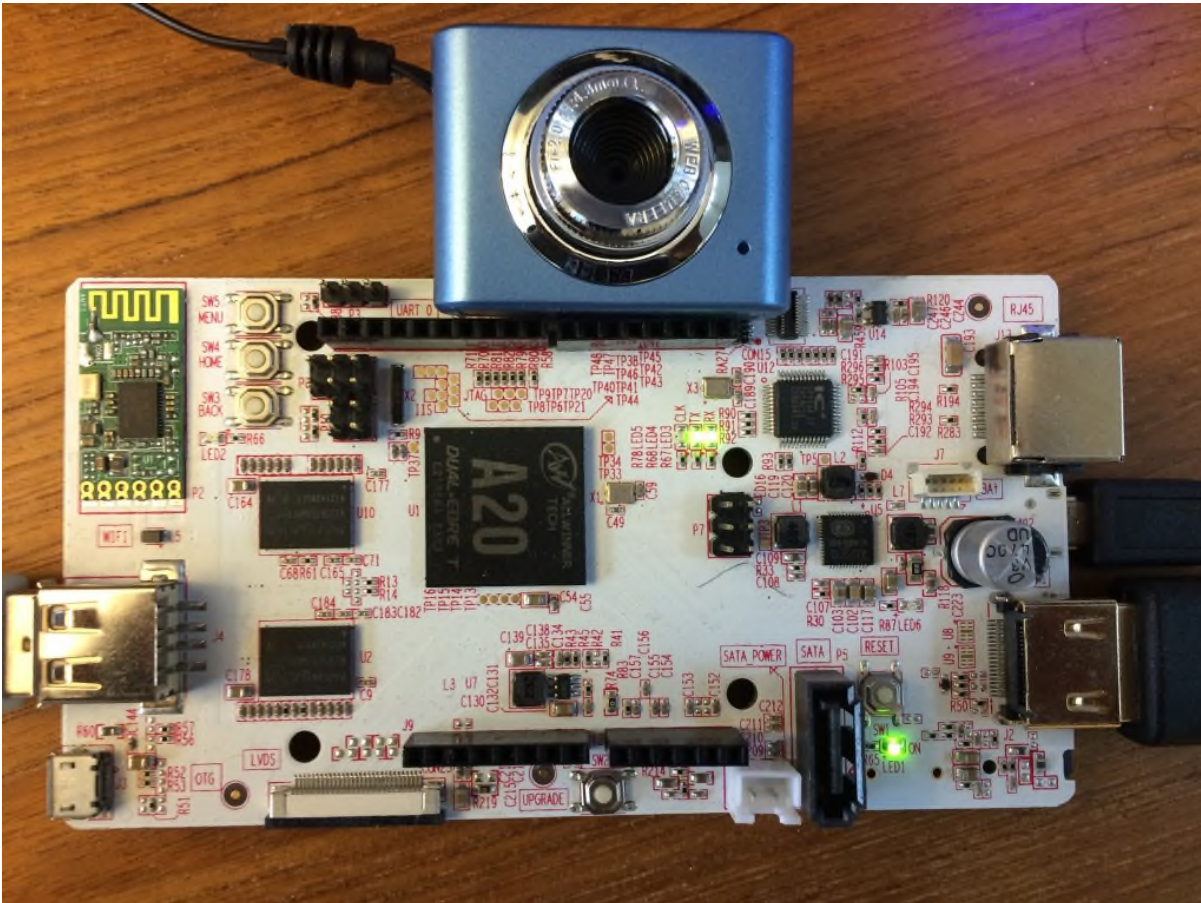# USB Webcam Streaming from pcDuino3 to Android using gstreamer jpegenc

This tutorial follows the steps found [here](#).

When we first attempted this project we used the [5MP CSI camera](#) but were unable to make the 5MP CSI camera work with gstreamer. So we switch to [the USB web cam](#) and it works perfectly.

Install gstreamer:

```
1   $sudo apt-get install gstreamer-tools gstreamer0.10-plugins-bad gstreamer0.10-plugins-good
```

To create gstreamer start script we used tcsh shell. First we install it with this command.

```
1   $sudo apt-get install tcsh
```

Create the script file 'gst-server.sh' that is used to start gstreamer streaming server.

Please use the IP address found in your '$ifconfig' in place of 192.168.0.103 shown here.

```
1
2    #!/bin/tcsh
3
4    set myip=192.168.0.103
5    set port=5000
     set width=320
6    set height=240
7
8    gst-launch\
9      v4l2src !\
       ffmpegcolorspace !\
10     video/x-raw-yuv,width=${width},height=${height},framerate=\(fraction\)30/1 !\
11     jpegenc !\
12     tcpserversink host=${myip} port=${port} sync=false
13
```

Next add an executable permission to the script.

```
1    $sudo chmod u+x gst-server.sh
```

Start gstreamer server using this command.

```
1    sudo ./gst-server.sh
```

On the Android side, you can download the Android apk file from here.

The source files for the Android APK can be found at simplemjpegview_gst which is based on SimpleMjpegStreamer.