**Weekly Project 300 Blog**

Week 2 – Entry 2 17th October

For the second week of this project, we met up with our project supervisor and discussed the components we need to go ahead with our project.   
The components we need are:

* One wireless access point
* Three routers
* Three switches
* Three Rj45 console cables
* Ten straight-through cables
* Six crossover cables
* Eight kettle leads (power)
* Three serial ports
* One server rack
* One mouse
* One Raspberry Pi
* Two Raspberry Pi USB cameras

I emailed the lecturer who could grant us these components and we got granted all of them except the server rack, raspberry pi cameras, raspberry pi, and the three Rj45 console cables.

Since I knew that the second camera for the Pi is not needed until we have the basic network up and running, I purchased the first Raspberry Pi camera using the research I had done last week. Our group gathered money to fund this Pi camera. As of now, we still need to purchase a server rack, three Rj45 console cables, a Raspberry Pi, and another USB camera for the Pi.

For my research this week, I had a look at how to install the camera module onto the Pi and get it working.

Before setting up, be aware that the camera can be damaged by static electricity. So, touching a radiator or PC chassis before taking the camera out of its bag is a good idea. Install the Raspberry Pi Camera module by inserting the cable into the Raspberry Pi. The cable slots into the connector situated between the Ethernet and HDMI ports, with the silver connectors facing the HDMI port.

After this is done, you can boot up the Pi. From the command prompt, run "sudo raspi-config". If the "camera" option is not listed, you will need to run a few commands to update your Raspberry Pi. Run "sudo apt-get update" and "sudo apt-get upgrade".

Navigate to the camera option and enable it, select ‘Finish’ and reboot the raspberry Pi.

**To take a video with the Pi**

"raspivid" is a command line application that allows you to capture video with your camera module.

Below is an example of this command in use.  
  
 To capture a 10 second video with your Raspberry Pi camera module, run  
 "raspivid -o video.h264 -t 10000" at the prompt, where "video" is the name of your video and "10000" is the number of milliseconds

**To take a picture with the Pi**

"raspistill" is a command line application that allows you to capture images with your camera module.  
Below is an example of this command in use.   
To capture an image in jpeg format, type "raspistill -o image.jpg" at the prompt, where "image" is the name of your image

Reference:  
<https://thepihut.com/blogs/raspberry-pi-tutorials/16021420-how-to-install-use-the-raspberry-pi-camera>