**CES Project Digital Logbook**

**“Using AI and Robotics to Entertain Cats”**

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**Supervisor: Fredrik Nordvall Forsberg**

*7/10/20*

Today an initial meeting was held over Zoom between me and my supervisor. We discussed briefly my intentions for the project, a basic outline of what the project will be, and what the final finished product will do.

We agreed on a second meeting one week from this (Wednesday 14th) to look over my Statement of Intent submission due Friday 16th

*9/10/20*

Have completed most of the Statement of Intent, with a couple of areas I am a bit unsure on, such as project timeline. This should be sorted out in my next meeting with the supervisor.

*14/10/20*

Met with supervisor over Zoom for a second time. Spent some time going over my Statement of Intent submission, with some changes suggested by him. By discussing the project milestones section of the form we managed to come up with a semi-detailed plan on how we want the project to go.

By going through this, the risk assessment considerations were also taken into account with mitigating actions suggested for each technical risk involved.

*20/10/20*

Supervisor sent the following components to me through mail today:

1 Raspberry Pi Zero W

1 GPS+SIM hat (probably not that useful for you, but still)

1 power bank

1 micro-SD to USB adapter

I then found appropriate components online and purchased the following:

|  |  |  |  |
| --- | --- | --- | --- |
| **Component Name** | **Source** | **Price** | **Link** |
| Pololu Ball Caster with 3/4 inch Metal Ball | Hobbytronics | £2.30 | https://www.hobbytronics.co.uk/robotics/robot-wheels-castors/ball-caster-metal |
| L298N Motor / Stepper Driver | The PiHut | £3.50 | https://thepihut.com/products/l298n-motor-stepper-driver |
| Smart Car Wheel Robot Plastic DC 3V-6V Drive Gear Motor With Tire (x4) | Hobbycomponents.com | £13.76 | https://hobbycomponents.com/motors-and-servos/124-smart-car-wheel-robot-plastic-dc-3v-6v-drive-gear-motor-with-tire- |
| Camera Module Board 5MP Webcam Video 1080p 720p For Raspberry Pi 2 A B B+ Pi 3 | eBay | £6.23 | https://www.ebay.co.uk/itm/271702042292 |

This should mean that I now have everything I need to begin working on the project very shortly, as soon as the Raspberry Pi module arrives for me.

*28/10/20*

Several of the components have now arrived, including the package including the Raspberry Pi. I had some issues setting up the Raspberry Pi with my laptop which has caused a large delay as I didn’t get them resolved today. I did expect it to be a bit more “plug and play” than it actually was.

I found several potential solutions but there turned out to be reasons why I couldn’t do them. Using an ethernet cable wasn’t a viable solution as my laptop does not have a port for ethernet connections just as most modern laptops don’t. Connecting by Wi-Fi turned out to be an issue since I lived in shared accommodation and don’t have access to the physical router.

*29/10/20*

Today I went through the process of connecting the Raspberry Pi to my laptop using USB. Everything was done correctly in accordance with several online tutorials, but the Raspberry Pi was not being picked up by the device manager on Windows. I changed to using a different USB cable, and this solved the issue, and I was able to SSH in to the Raspberry Pi using PuTTy.

I then configured the Raspberry Pi, ensuring all the latest drivers were installed for all the functions I will need to use, including installing the Python manager and upgrading it from Python 2.7 to Python 3.7.

Getting the hardware set up was an annoying delay that I didn’t account for, but thankfully everything is now ready for coding to start.