# Week 1

This week, I met my supervisor, Dr. Judhi Prasetyo. I presented all my ideas to him, and he gave feedback on them. He provided me with a clear path in pursuing each of them. I like that he made all my ideas more feasible with some adjustments. However, I am not content with all the ideas I presented to him. I will continue searching for more ideas.

## Week 2

This week, after researching, I found a project I would enjoy working on, an AI-automated waste Recycling Bot. The idea looked complicated, so I approached my supervisor, who found a way to simplify it. Instead of detecting 4 different waste classes, I can detect two waste classes, e.g., Plastic/Can. These waste classes will be based on how harmful they are to recycling. Also, he told me that I could use a material other than metal for the bot’s chassis. I will have to research how I want the device to look.

## Week 15

I met with my supervisor this week to finalise my project idea and present my blog. I laid out the plans for my project moving forward, and he advised me on what to do regarding training the AI model. He also told me to start by working on creating a cloud server and testing the model by sending images to the server using an API. After finishing my project proposal and literature review, I will start working on implementing the AI model on the server.

## Week 16

This week, I met with my supervisor to present my project update. I informed him about issues with the ESP32 WIFI + Camera microcontroller. He tried to help me in fixing the issue but to no avail. We later decided to use the Arduino Uno to program the ESP32 instead of the ESP32 MB programmer, and the camera module worked. I have started using the ESP 32 camera module to take pictures and test the images with some AI waste classifier models I found online.

## Week 17

This week, I tried to meet with my supervisor to discuss the illustration I drew for my prototype. I discussed the different components of the prototype and asked my supervisor for feedback. He explained that I needed to simplify the solution, so instead of spinning the bins using a stepper motor to a central location for sorting, I could turn and tilt the flat plate on top using servo motors to reduce the overall power consumption.

## Week 18

I met with my supervisor to review and sign my ethics form. He had no issues with the form, so he signed it. Afterwards, I updated him on the progress of my project, showed him the 3D model I designed for my bot’s base and asked his permission to use the 3D printer at school. He was so kind to let me use it. Next week, I will start working on the software and try to deploy the server to house the AI model.

## Week 19

I reached out to Mr Judhi to update him on my project progress. I highlighted the progress on the AI model and the challenges of hosting the model on the Railway cloud server. I had no other issues to discuss with him, so we had a short encounter. Next week is reading week, so students and staff will not be in school. I will try to meet with him the week after.