Work Completed

First, we needed to install the dependencies that were in the requirements. This required us to create a Virtual Environment with python 3.9. After we did this, we needed to install all of the files using pip. One issue we ran into was with the pytorch modules. To resolve this, we needed to remove the cuda version of pytorch and just install the cpu enabled pytorch. To allow us to run the code with the GPU, we will need cuda enabled, and so we can download the cuda toolkit separately. We have been able to obtain a partial set of the MultiFlow dataset. To preprocess the data, there are two scripts that we used. The first was generate_tracks.py which generates the ground truth track in the correct format for training/testing. We needed to change line 118 to os.makedirs(track_dirs) because what they had in it was not properly generating the directory to put the data in. After that, we used the generate_event_representation.py using the same two directories as we did for generate_tracks.py. We also had to include a representation type. We have generated the event representations using the “time_surface” option. We plan on training a model to understand how they trained a model and then we will perform testing and evaluation with the test dataset. After that, we will also recreate the testing with the datasets given to use by the AIRLab. This will allow us to test the model on the lab’s dataset.

We have also been able to complete the training for the synthetic dataset. To do this, we had to make sure that all of the config files had the right directories to our dataset. This required us to name our folder that got generated by the generate_tracks.py and generate_representations.py the same as our main folder with *extra added on (“data” and “data*_extra”). After that, we were having some issues with dependencies which we were able to debug by changing the versions of a few packages (numpy, pillow).