# Spring 2022 - Final Group Project

## Group # 13

## Project Goal

Use Visual SLAM techniques to reconstruct a 3D map of an outdoor environments.

## What datasets will you work on? Will your team be collecting new datasets?

To test out pipeline we'll use two datasets

1. KITTI dataset
2. Self-collected dataset outside NEU

## What software packages are you going to use? Have you investigated what it needs for installation and inputs for running?

We're going to use the Lego-loam software package for analysis, The ROS package will be ROS Noetic (Ubuntu 18.04).

## Will your team need any sensors/hardware from the lab? Do you know how to use the hardware/sensors that you need?

We need the NUANCE car from the lab for real time data collection.

## Are you doing any qualitative and quantitative evaluation on different datasets?

We will be doing a qualitative evaluation based on the performance of the dataset we collected and the dataset available online, (KITTI dataset) and compare the pipeline we created and the Lego-loam pipeline available online.

## Project Work Division

Aniket Gupta – software pipeline for visual odometry, dataset collection and analyzing

Mayur Bhise – software pipeline for visual odometry, dataset collection and analyzing

Kyungsun Lee – Lego-loam pipeline, dataset collection and analyzing

Ukhyeon Shin – Lego-loam pipeline, dataset collection and analyzing