# Progress Report #1: February 2019

# Autonomous Vision-aided Vehicle

## Overview

A platform has been selected along with 2 motors and wheels. Sensor interfacing was also researched. For the coming weeks we plan on testing the vision system by looking further into Google’s TensorFlow. We will also look into motor drivers that will be suitable for our motors and design and after this is done, we will design and build the rest of the components needed (chassis, shovel, tray). Interfacing the microcontroller and motor drivers and other components will also be tested and achieved. We are working hard to achieve our goals and schedule, but setbacks have occurred. However, we will be back on track in the coming weeks.

## Milestones Achieved

The goals that have been achieved so far are:

* acquired a platform,
* acquired motors,
* acquired wheels,
* acquired encoders,
* acquired ultrasonic sensors,
* researched interfacing to sensors.

## Expected Tasks for Next Period

The tasks that we would like to achieve going forward for the next period are:

* test and verify vision system (TensorFlow),
* identify and acquire motor driver,
* identify and acquire battery,
* interface microcontroller with sensors (encoders and ultrasonic),
* design and build upper platform body, shovel and cart.

## Issues and Concerns

Some expected issues and concerns going forward may include:

* TensorFlow’s framework compatibility with our system
* identifying a battery that will be suitable for our design
* interfacing microcontroller with sensors and small single-board computer

## Schedule/Gantt Chart

