**PROJECT PROPOSAL**

**SIMULATED AUTONOMOUS VEHICLE**

To: \_\_\_\_\_\_

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1. Summary

This proposal has been written to get approval for the research and development of a simulated autonomous vehicle and get approval for the required funding for the project.

The following sections contain the background, project description,

1. Introduction

The objective of this project is to develop a simulated autonomous vehicle. The vehicle would be simulated in a virtual environment. The environments would get progressively more complex as we move ahead with the project and the vehicle would make decisions on its own and would be able to reach from one point to the other without any human assistance while dodging other cars and obstacles.

1. Background

Autonomous vehicles have been a staple in science fiction movies and a popular topic of discussion in media over the past decades. Recently, various major corporations have made announcements regarding plans on moving in this direction. With the advancements in technology in the recent years autonomous vehicles operating on the streets have become a very realistic scenario.

The “Simulated Autonomous Vehicle” is being developed as a multi-year project this year being the first year in the process.

**Implementation**:

The agent will be written in Java and it is going to be an abstract class where all other car agents from different environments will inherit from, using the methods that have been defined in the abstract class. An agent would be using inputs and outputs, the input being the state of the environment and the output being the decisions made by the agent given the inputs from the environment.

In the initial phases of the project the environment would be developed in the form of a GUI. A rectangle being the vehicle travels from the left side of the screen to the right side avoiding obstacles in form of straight lines.

1. Problems

Waiting on discussion

1. Goals

The final goal of the project is to develop a simulated fully automated vehicle that can travel from one point to another while avoiding other vehicles and obstacles in the way.

1. Timetable

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| Time period | Task | Team Member |
| September 1st – September 9th | * Project proposal * Minimum viable product |  |
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