MINI PROJECT REPORT

On Car game

By Hamza

Jatin Patil(122A8028)

K N Sai Shraddha (122A8029)

SUBMITTED IN PARTIAL FULFILLMENT FOR THE DEGREE OF

BACHELOR OF ENGINEERING

In

Artificial Intelligence Data Science

DEPARTMENT OF ARTIFICIAL INTELLIGENCE MACHINE LEARNING

SIES GRADUATE SCHOOL OF TECHNOLOGY

NERUL, NAVI MUMBAI – 400706

ACADEMIC YEAR

2023 – 2024

CONTENT

Abstract

The Computer Graphics mini-project involves the development of a thrilling car game where the player's objective is to navigate a car through a dynamically changing landscape while avoiding obstacles falling from the top of the screen. The game is designed to test the player's reflexes and agility as they strive to achieve the highest possible score by safely maneuvering the car through a series of challenging obstacles.

Introduction

The project aims to highlight the immersive and interactive nature of the game, emphasizing its visually captivating graphics, smooth animation, and user-friendly interface. By combining the excitement of gameplay with the application of computer graphics principles, this project provides an opportunity for players to not only enjoy an entertaining gaming experience but also gain insight into the implementation of various computer graphics techniques, including animation, collision detection, and real-time rendering.

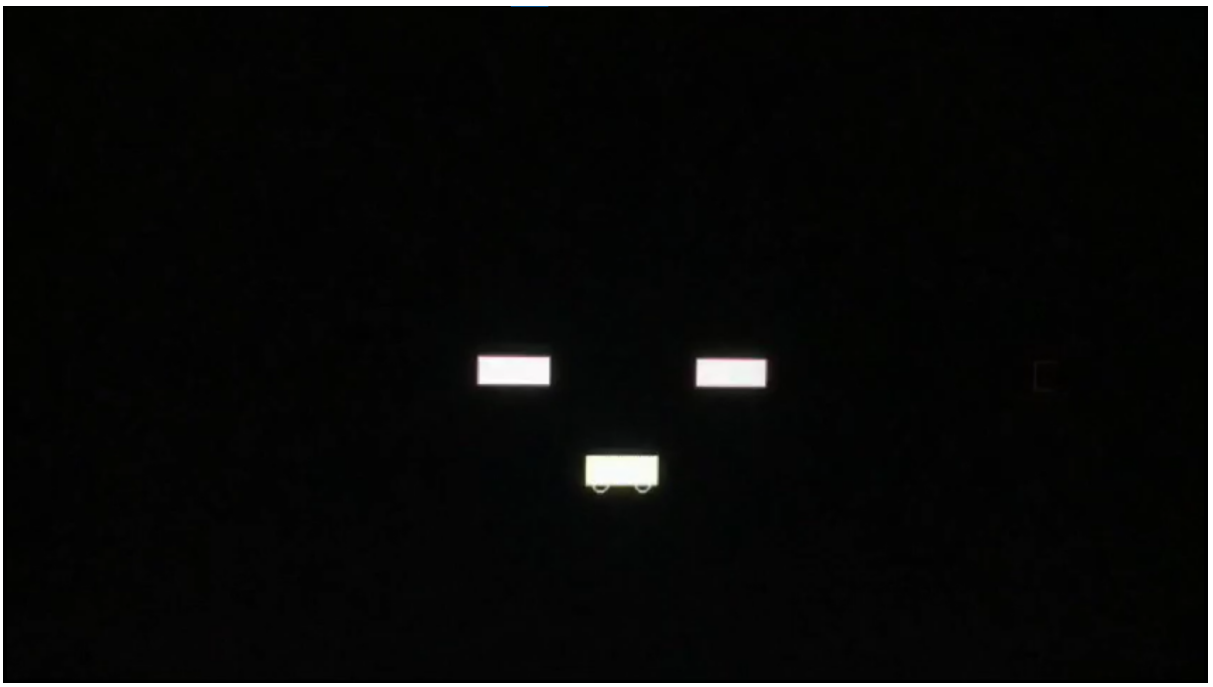
The project presents an exhilarating gaming experience centered around a car racing game, where the player's primary objective is to steer a

car to safety while avoiding obstacles descending from the top of the screen. This game is designed to provide an engaging and challenging experience that tests the player's reflexes and decision-making skills, all while showcasing the application of fundamental computer graphics concepts and techniques.

In this game, players take control of a virtual car displayed on the screen, with the goal of navigating through a dynamically changing environment filled with obstacles coming from the upside-down direction. As the game progresses, the obstacles become increasingly complex and unpredictable, creating a thrilling and competitive gaming experience that encourages players to achieve higher scores and overcome challenges with each level.

Detailed System Design

Snapshots of working project



Conclusion and future scope

1. Expand the game by adding power-ups, multiple levels with varying difficulties, and diverse obstacles to increase the overall excitement and engagement for players.
2. Improve the game's visual appeal by incorporating advanced graphics and

animation techniques, including dynamic lighting, particle effects, and more detailed car and obstacle designs.

3. Implement multiplayer capabilities, allowing players to compete or collaborate in real-time, thereby fostering a more interactive and social gaming experience.

Conclusion

The project successfully demonstrates the development of an engaging and interactive car game built using the C language and executed in the Turbo C++ software. By creating a challenging gameplay environment where players must maneuver a car to avoid obstacles descending from the top of the screen, the project highlights the effective application of fundamental computer graphics concepts in game development.

The project's successful implementation showcases the potential of C language and the Turbo C++ software in creating visually appealing games with smooth animation and user-friendly interfaces. Through the careful integration of various game components, including graphics rendering, user input handling, and collision detection, the project emphasizes the importance of systematic planning and execution in the development of computer

graphics applications. Looking ahead, the suggested future scope areas present opportunities for further enhancing the game's features, graphics, and overall user experience.

References

- Computer graphics textbook
- Online Resources