

CSEE W4840 FINAL PROJECT PROPOSAL

Group Members:

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Project:

RALLY-X Videogame

Introduction:

Rally-X is a maze/driving arcade game from the 80s. It is similar to Pac-Man. The objective of the game is to capture all the flags placed throughout the map while avoiding the other racers. This was the first game to allow multiple direction scrolling (vertical and horizontal). This game also implemented a primitive example of a radar/mini-map on the screen. This is a single player game.

Design:

We will implement this game using a combination of C and VHDL on our Altera board. The game will be controlled using a PS/2 Keyboard. The game will be displayed on the VGA monitor, which has a resolution of 640x480. Because the map resolution is higher than this, we will need to implement vertical and horizontal scrolling when the car moves. Graphics will be made using arrays and stored in the RAM.

Milestones:

Milestone 1-

- Design and build the game map
- Store the map in the RAM (need ram controller)
- Get the VGA controller to display the correct portion of the map

Milestone 2-

- Work on more graphics
- Finish VGA controller
- Finish the PS/2 keyboard controller
- Write software to control player.

Milestone 3-

- Finish programming the game (software)
- Start testing