Robot Game

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Goal and Objectives

• The objective of this project is to create a multiple user of Robot game. In this game I use a multiple user Networking technique. We used multi-user virtual environments (NetVE) which have common state, common space, common presence and common time. The users (players) share the same environment and interact with others within the environment by trying to kill each other.
Modeling

1. THE ENVIRONMENT:

The virtual environment is an isolated area that similar to small downtown containing a group of structures, some vehicles, some batteries and some weapons such as laser towers in addition to some complex electronic devices for this world.

Several Views of the virtual environment
MODELS:

- 2 vehicles
- 1 turret
- 3 structures
- Health Kit
- Fan
2. PLAYER

The player is a Third Person Controller. He is just a Robot. There is no guns, He just use a laser beam emits from his eyes as a weapon.

The laser beam emits from player’s eyes

The player

Health

The player has a health that represented in the game environment by an indicator of health. When the laser beam hit the player, the health will decrease, and it Increases if the player grabs the health kit.

Health indicator
Interface

The game has these components:

- Input component:
  - Player Name Field
  - Quit Room Button
  - Quit Application Button

- Output:
  - Indicator Health
  - Instructions.

Player Name Field

Indicator Health

Quit Room and Application Button and Instructions
Animations

This game consumes different animations for different objects as follows:

- players
  - idle, Run, Jump, attack, etc.
- Doors:
  - Open, Close
- Fans: (*)
  - turn on/Off
- Health Kit: (*)
  - move around
- Laser_tower (*):
  - Up, down, turn left, turn right

* Play Automatically
Sound
- Laser sound
- Attack sound
- Open door sound
- Close door sound
- Ambient music sound
- Hit health kit sound
- Laser tower sound (up, down, left, right)

Interactivity
I used several **triggered** events in the environment, for example:
- Hitting the player to lose some health.
- Open/ close the door.
- Getting some health by catch the health kit
- Laser tower goes up/down (autoplay)

Effects
In this game, I used a Muzzle Flash effect for laser beam, and Unit Selection for laser tower.