

WMT - A “Whac-A-Mole” like game

Si Wang(sw2778), Shuting Yang(sy2489), Linchuan Mei(lm2908), Jun Jia(jj2612),

Jian Lu(jl3946)



I. Overview

In this project, our team will deliver a “Whac-A-Mole” like game. Two output devices will be used for the game, including VGA display, audio output. The user will use a mouse as an input device to move the pointer across the screen to hit the moles.

II. Game rule

- Every game will last 3 minutes.
- User can miss 5 moles in each game. More than that, game over.
- If user miss less than 5 moles in the game, he enter the next level
- A score system will record the score of each game.

III. Design implementation

a. Hardware

- PS2 mouse action control, capable of tracking the movement and key strokes from mouse.
- VGA graphic display using RGB color, 2D graphic effects for game scenes and actions.

- Sound effect for BGM, and game play.
- Nois CPU, and RAM slaved to CPU.

b. Software

- A GUI development for game initiation and play.
- An external interrupt for mouse control.
- Score keeping of game progress.
- Programming moles' move and action..

IV. Milestones

Milestone 1

- Implement the framework of the software,
- Establish the model of mole, and GUI.
- Set up the hardware peripherals for the project.

Milestone 2

- Make the peripheral-software communication working properly.
- Implement the core algorithm for generation of moles and the detection of the position of mouse.

Milestone3

- Achieve the functionalities of the game for different stages.