

CS 5410 – Final Project

Mini Game

Introduction

A mini game is a game that lasts only a few seconds to a few minutes per play. Nintendo released an entire “game” made up of mini games called, “WarioWare”. Each mini game lasted at most 5 seconds. Actually, these are called micro games and that is much closer to what you are going to do for this final assignment.

Mini Game

There are reports that Wiley Coyote is at it again, planting bombs all over the desert in an attempt to scare the Roadrunner out of his hiding place. It is your job to diffuse all the bombs he has planted. Something like that, anyway.

Create a mini game that follows the mockup shown on the last page and meets the following gameplay and technical requirements.

Gameplay Requirements

The game starts with a set number of bombs ticking down and the user has to click on each bomb to diffuse it. If diffused, the countdown stops, a green check mark is placed over the bomb, and the score is updated. If a bomb tick hits 0, it blows up in a shower of gravity controlled sparks and has a yellow explosion marker shown on top of it. Bombs begin ticking down from a pre-determined set of numbers, depending upon how many bombs there are in the level. This is a fast paced game, bombs tick down quickly, but still playable.

- Game starts with 6 bombs on the first level. If the user clears all bombs on a level, the next level contains 3 additional bombs, continuing until a max of 18 bombs is reached. If the user clears that many, the game is over.
- At the start of *each* level, display a “starting in 3 (2, 1)” message to give the player a chance to get ready, then automatically transition to the gameplay. The layout for the next level should be visible, giving the player a chance to quickly plan while the countdown happens.
- Scoring is based upon the number displayed on the bomb at the time it was clicked, along with a -5 for each bomb that goes off.
- You can determine how fast the bombs tick down, but this should be a fairly fast game. Remember that I have to grade these things, I need to see all the levels.
- The *placement* of the countdown numbers on a bomb is random. In other words, each time the game is played, the numbers are in randomly selected positions. The location of the bombs is fixed, three bombs per row.
- Countdown numbers to use (for each additional bombs). These were scientifically chosen by me pulling them out of the air, I have no idea if they are “fun”.

- Level 1: 3, 3, 2, 2, 1, 1
- Level 2: 4, 3, 2
- Level 3: 5, 4, 3
- Level 4: 6, 5, 4
- Level 5: 7, 6, 5

Technical Requirements

- Menu and game screen system
 - New Game
 - High Scores (Show top 5)
 - Credits
- Visual Components
 - I have provided graphics to use.
 - During countdown, display the bomb with a number on top of it.
 - When a bomb is diffused, stop the countdown and display the green checkmark.
 - When a bomb blows up, you must show a gravity controlled (tasteful) shower of sparks (i.e. particles) at the bomb location, then display the explosion graphic on the top thereafter.
 - Show the score during gameplay
- High scores must persist to the browser's local storage.
 - Total Score
 - Score for each level
 - Total Time
 - Time for each level

Grading Breakdown

- Menus: 10 %
- Scoring: 5%
- High Scores: 10 % (Requires scoring)
- Correct use of Random Number Placement: 10%
- Correct Use of Countdown Numbers: 10%
- Level Start Countdown: 10%
- Bomb Countdown: 10%
- Other Gameplay: 15%
- Particles: 10%
- General Visual: 10%

Gameplay Mockup

