

Final Project Proposal:

Cannon Ball

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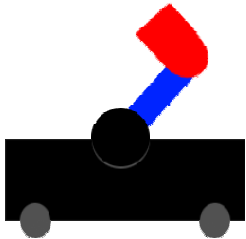
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Purpose:

The goal of the game is to dodge the enemy and score points. The player has control of the launcher and can shoot a cannon ball into the level. The cannon ball will then come to a stop and grow until it collides with a wall or another object. The player can then shoot another cannon ball into the level and if it collides with an existing cannon ball, the existing ball is destroyed and a point is scored.

There are two ways the game can end. The first is if at any point the enemy collides with the hero (Launcher), the game will end. The other is if a cannon ball is launched and then it bounces back into the launch pad area.

Hero - Launcher



The hero can move in the following ways:

- 1) The cannon will be able to rotate. This is used to aim.
- 2) The arm will be able to rotate and stretch.
- 3) The hero can also slide left and right.

Supporting Objects:

Cannon Ball:



Shoot these from the cannon. Each ball will slow down and come to a stop on its own. If it collides with a wall or another object, it will bounce. When stopped, the ball will grow until it collides with a wall or another object. In Hard Mode, these balls can also be a "2" or a "3."

Enemy:



This will bounce around the world. If it collides with the Launcher, the game is over. If it collides with the Hero ball, the two will bounce away from each other.

Other Rules:

Only one cannon ball can be moving at a time.

The enemy can cross into the launch pad area. The hero must dodge it!

Easy/Hard Mode:

In Easy Mode, each cannon ball only takes one hit to score a point and destroy the ball.

In Hard Mode, each cannon ball requires three hits before a point is scored.

Multiplay

Two or more players can be play at the same time. They will take turns controlling the hero. There will be a time limit on each turn. If the time expires, the cannon ball will just shoot automatically. After taking one shot, the next player will have a turn. If a player dies, then s/he is out of the game. At the end of the game, the player with the most points wins.

- Can use network, so use many computer to play (optional)
- Can use only one computer.

Controls:

Cannon: Left-click and hold anywhere in the main view will aim the cannon at the mouse position. When left-click is released, a Cannon Ball will be launched out of the cannon in the direction of the mouse position.

Arm: User can right-click and drag horizontally to rotate the arm. User can right-click and drag vertically to resize the arm. The length of the arm also adjusts the starting speed of the cannon ball.

Launcher: The entire launcher can slide left and right using the arrow keys.

Layout:

Main View: Will show the part of the game. (The part can be changed by user)

Hero View: The user can Left-Click and drag to pan around the Hero View.

Right-Click and drag in the Hero View will zoom in and out.

New Game: Initialize model and begin game.

Pause: Suspend/Resume game.

Hard Mode: Toggle between Easy Mode and Hard Mode.

