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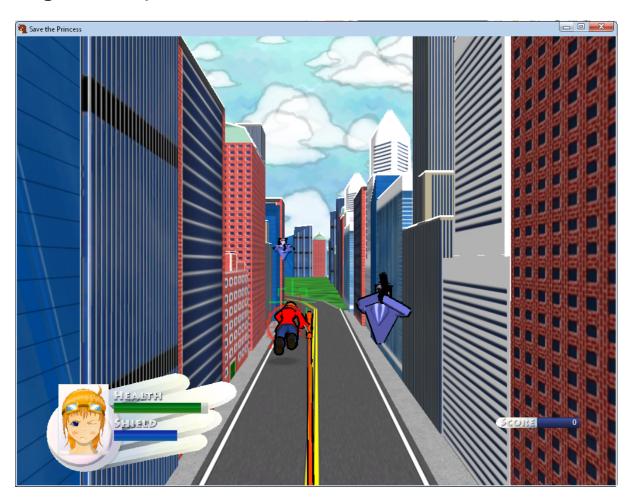
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## **Screenshots**

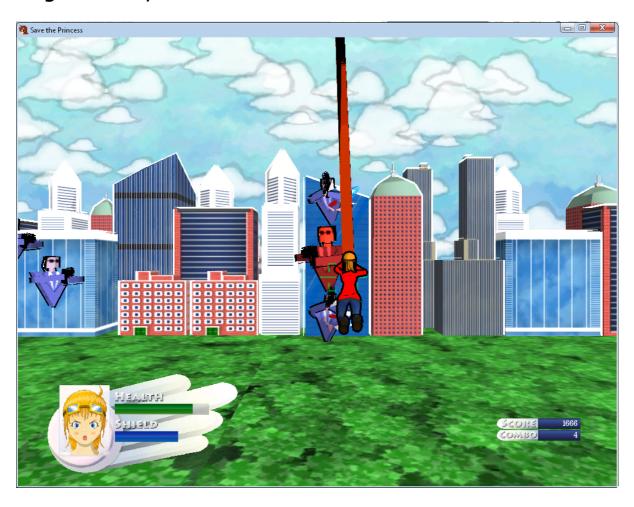
## Menu



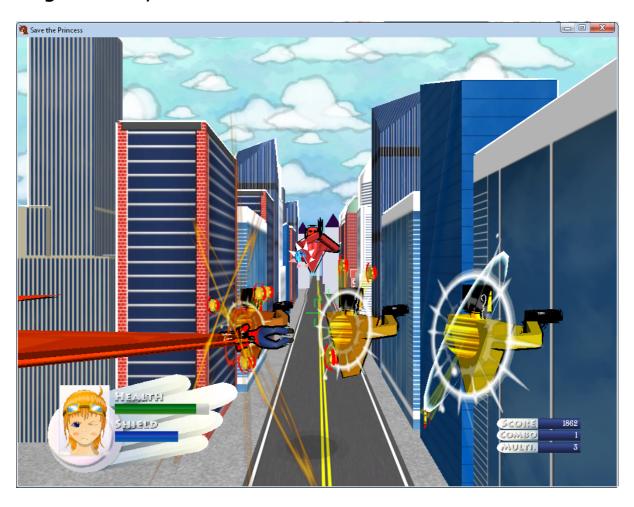
## Original Mode, #1



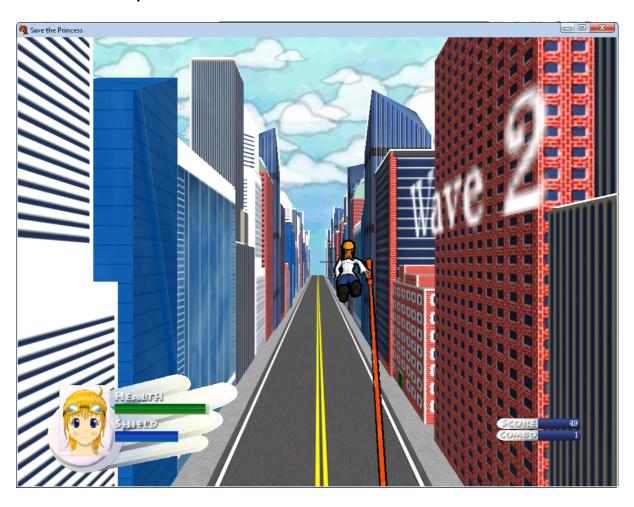
## Original Mode, #2



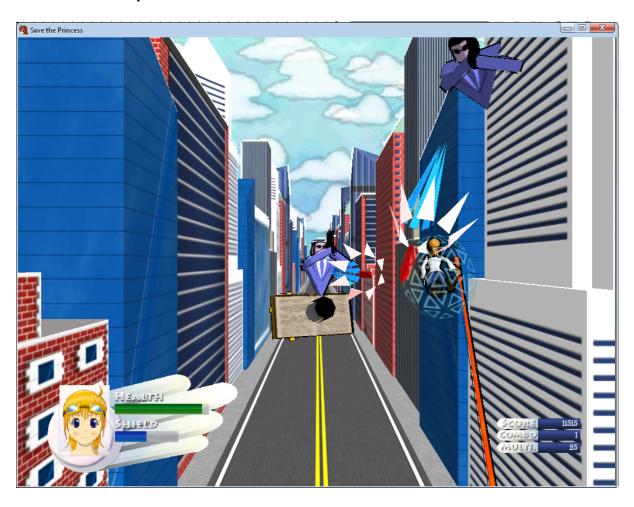
## Original Mode, #3



## Arcade Mode, #1



## Arcade Mode, #2



### Arcade Mode, #3



### **Predecessor**

The game builds on the Starfox design. The main character will be moving forward through the levels while fighting off enemies that fly at her from all angles. She will also have to avoid objects that are placed in her flight path

## **Target Audience**

This game is aimed largely at experienced players. We aim for the game controls to be easy enough for beginning players as well. The age range will mostly be aimed around 10-26 but should have some appeal to everyone. The audience will also have some type of history of playing bullet hells games and anime interests.

### **Introduction**

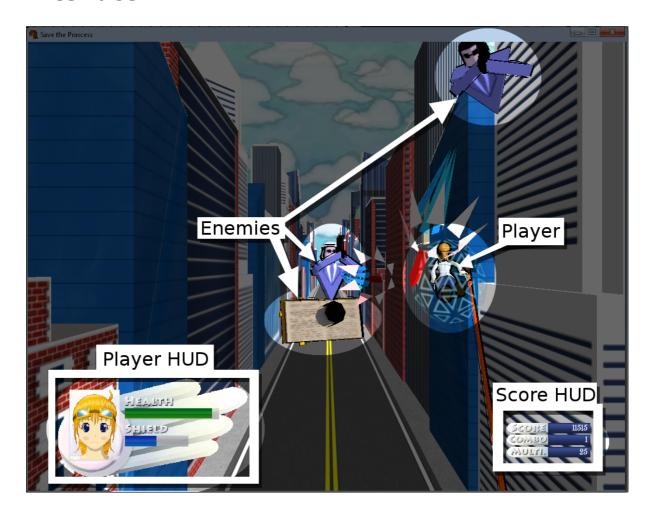
Your princess has been kidnapped! All that you have is a hunch as to where she is. Big brother (the government) and bibles (the church) do not want you to see her again and will stop at all costs to keep you from reaching her.

The game revolves around the main character, a heroine, who is trying to rescue her princess from those who oppose the idea of same sex marriage. To save your your princess you are traveling through a city full of those who are trying to stop your reunion. To defeat them you have an extremely large sword which you must wield to slice your way through.

## **Delivery System & Requirements**

A working computer and a XBox 360 controller or a keyboard.

### **Interface**



### **Player**

Protagonist of this game. The player is the character one controls. There are several states the player can be in:

- 1. **Idle**: The normal state. During idle, the player takes no actions other than moving across the screen.
- 2. **Danger**: A variation of the idle state, when the player's health is low. On danger state, the player's shirt blinks orange, and a smoke mark appears periodically.
- 3. **Hit**: An animation state when the player is hit. The player will curl during this state, and her shirt will blink red a few times. One can disrupt this state at any time by simply attacking.

- 4. **Heal**: An animation state when the player collects a health pack. The player's shirt will blink green a few times. On can disrupt this state at any time by attacking.
- 5. **Attack**: The animated state the player takes when attacking. This is the player's offensive state. While the player is allowed to move during an attack state, he or she will not be able to initiate a different attack until the animation finishes.
- 6. **Shield**: When the player triggers the shield, it creates a transparent shield around the character. During this state, the player is invulnerable to all attack *except* for colliding into barriers. One can trigger the shield during an attack as well. The shield, however, degenerates over time. This is indicated both by the shield's opacity and the shield bar under the player HUD.

#### **Enemies**

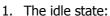
The antagonist of the game. Unlike the player, one has no control over the enemies' state. The enemy can be under the following states:

- 1. **Idle**: The normal state. The enemy is most vulnerable during this state.
- 2. **Hit**: An animation state when an enemy is hit. The enemy will flash yellow and play an indicative animation.
- 3. **Attack**: The animated state the enemy takes when attacking. The enemy will fire one or more projectiles during this state, and play a recoiling animation.
- 4. **Death**: When the enemy runs out of health, it will take a death animation where it will explode. The enemy will also spurt out coins.

### **Player HUD**

The Player HUD informs the state that the player is in. The display shows:

1. **Face**: The face indicates the states the player is in. The face changes when the player is in:





2. The danger state:



3. The hit state:



4. And the attack state:



- 2. **Health**: The health bar indicates the amount of health the player have left. The health bar turns red when the player is in the danger state; otherwise, it remains green.
- 3. **Shield**: The amount of shield the player have left. Unlike the health, the shield bar is consistently blue, and regenerates very quickly.

#### **Score HUD**

The Score HUD indicates the amount of points the player has accrued. The display is divided into 3 sections:

1. **Score**: The player's cumulative score. The player accumulates points by collecting coins released by an enemy.

- 2. **Combo**: A section that dynamically appears when a player hits an enemy. Displays the number of consecutive hits the player was able to accumulate without missing. Increases the number of coins an enemy releases at death.
- 3. **Multiplier**: A section that appears dynamically when the player hits more than one enemy on a single attack. Displays the number of enemies the player was able to hit with one attack. Multiplies the number of coins an enemy releases at death.

### **Characters**

#### Heroine



The protagonist of the game, and the character the player controls.

Health: 30Attack: 1Collide: -Points: -

### Agent (blue)



The standard enemy, as well as the weakest. Fires one bullet at a time.

Health: 1Attack: 1Collide: -3Points: 1

## Agent (red)



The stronger cousin of the blue Agent. Has more health, and fires two bullets per cycle.

Health: 2Attack: 1 x2Collide: -3Points: 2

#### **Bible**



The religious influence in the game. Fires a homing rocket. Also fires less frequently than the blue Agent.

Health: 2Attack: 2Collide: -3Points: 3

#### **Bomb**



An explosive that remains passive for about 7 seconds. After the timer reaches 0, the bomb explodes into 6 homing rockets. A bomb can be diffused by hitting it 5 times.

Health: 5Attack: 2 x6Collide: -3Points: 4

## **Game Elements**

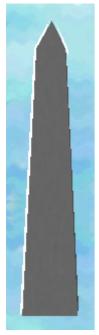
### **Health Pack**



Increases the player's health.

• Collide: +10

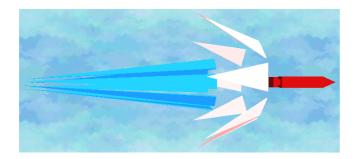
### **Barriers**



Static or moving objects that does not attack the player.

• Collide: -4

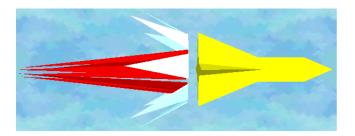
### **Bullet**



Standard projectile that flies straight.

• Collide: -1

### **Rocket**



A homing projectile that's a little more powerful than the bullet.

• Collide: -2

### **Small Coin**



The smallest coin. Coins homes into the player, and is guaranteed to hit him or her.

• Points: +1

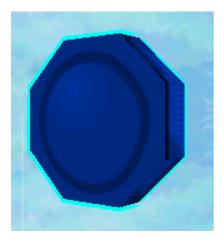
### **Medium Coin**



The second smallest coin.

• Points: +10

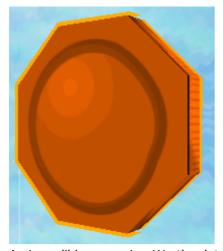
## **Big Coin**



A big, rather rare coin.

• Points: +50

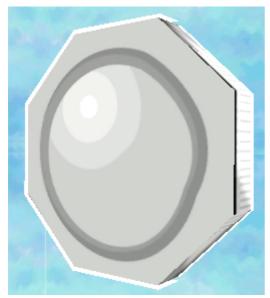
## **Mega Coin**



An incredibly rare coin. Worth a lot.

• Points: +250

#### **Ultra Coin**



Largest and rarest coin.

• Points: +1250

## **Rules & Game-play**

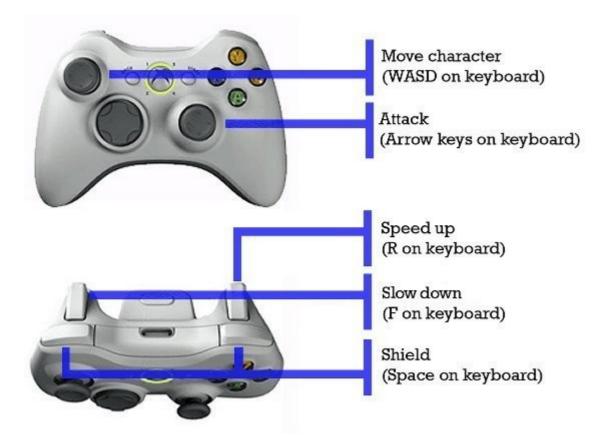
## **Setup**

Computer must meet technical specs and the executable. You then just need to run the executable and your good.

## **Game-play**

The player controls the main character as she moves through the game world. By utilizing the Xbox 360 controllers analog sticks and both triggers, the character's weapon will swing and destroy any enemies that it makes contact with. The enemies will be flying in from all sides, shooting objects at the player.

Controls are:



- 1. Move Player
  - 1. left-analog stick
- 2. Swing sword
  - 1. right analog stick
- 3. Shield
  - 1. left click button
  - 2. right click button
- 4. Speed Up
  - 1. right trigger button
- 5. Slow Down
  - 1. left trigger button

#### Mode

There is an Original level and an Arcade level. The original level has the character moving through a city environment while fighting off enemies and dodging moving obstacles. The arcade level is a city scape that repeats while the player tries to survive as long as possible against waves of enemies. Both modes will share a high score list.

## **Scoring**

Scoring will be generated by you killing an enemy and also in the higher amount of combos the player gets. A multiplier is applied to the score when the player kills more than one enemy in a single attack. A combo is obtained through killing enemies on each consecutive strike. When one misses, the combo returns to 0.

The formula works as follows:

total score = (enemy score + combo) \* multiplier

This guarantees the multiplier is more important than the combo score.

### **Visualization**

To convey the cartoon-like feel of Japanese Pop art, the game graphics will be cell-shaded. While the style will be distinctly Japanese, the game will have a strong surrealism influence. For example, buildings warping and bending, flying around into the player's path, and generally doing things not possible in reality.

## **Music & Sound Design**

Levels will have minimalistic background music. there will also be sounds for your sword and enemies you encounter. The aim is to convey the ambiance and emptiness of society.

## **Programming Structure**

The scripts necessary to run the game are split into various categories:

- 1. Attributes (data-based)
- 2. Trigger (event-based)
- 3. Controls (control-based)
- 4. HUD/Menu (menu-based)
- 5. Other (everything else)

Any element that have a collision detection retains at least one attribute script. Their sole purpose is to either affect itself or player in some way. For example, if an enemy hits the player, the attribute script on the enemy decreases the player's health. Conversely, if the player hits the enemy, the player's attribute script decrements the enemy health.

Trigger scripts are usually added in invisible walls, and run when the player collides with them. Trigger script generates several events, including enemy animation, entrance, loading a new stage, and so forth.

The controls are retained in a separate entity. Since we will provide multiple control methods, it will be easier for us to encapsulate control logic separate to the player and graphics rendition.

The HUD and Menu scripts, of course, deals with any two dimensional aspects in the game. Usually, the attributes script changes these elements.

And of course, many scripts didn't fall into either of these categories, such as generating clouds in the background. This was simply all added in the other section.

The level is not interactive, and always scrolling towards the screen. Only a minimal amount of programming is necessary to render them.

## **Technical Specs**

## **Unity Specifications**

Windows 7, Windows Vista, Windows XP SP 2

Mac OS X "Tiger" or later Graphics card with 64 MB of RAM and 4 texture units

2.0+ GHz processor

SM3-compatible video card

3 GB free hard drive space

### **Physics**

Nvidia PhysX engine

## **Rendering System**

Direct3D and OpenGL

## **Implementation**

Unity 3D

## **Production Time-frame**

## **Pre-Alpha**

Due: March 3rd

Create documentation and ideas.

## **Alpha**

Due: March 24th

Start a working game.

#### **Beta**

Due: April 21st

All features implemented

#### Release

**Due:** May 5th Bug fixes.

## **References**

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Eric S. Trautmann. <u>The art of Halo</u>. New York: The Random House Publishing Group, 2004.