Bakery Massacre

Version 2.0.1

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Overview

The playable character is a baker whose bakery has been taken over by two types of blobs of icing and a gingerbread man that have come to life due to an unfortunate accident. The baker must collect items in three levels to bake cupcakes before your order is due while fighting off the icing monsters and the gingerbread man as the final boss.

Rules

Level 1: Tutorial

- Player can move in all directions and jump.
- Player must kill small groups of enemies.
- Player must collect items by walking over them.
- When all items are collected player must proceed to the green-illuminated area to access the next level.

Level 2: Maze

- Player must kill enemies that will spawn continuously until the level is complete.
- Player must find many objects that are hidden throughout the level.
- Once the player collects all of the object they must proceed to the green-illuminated area to access the next level.

Level 3: Boss

- Player must complete this level in one minute.
- Player must kill small enemies that will constantly respawn until the level is complete.
- Player must kill the Gingerbread man.
- Player must collect items required to proceed.
- Once player has killed boss and collected required items they must proceed to the green-illuminated area to win the game.

Requirements

- FPS Controller
- Environment composed of basic 3D models
- Working gun with projectile tracking and hit detection
- Enemy models
- Enemy managers
- Collectable Items
- Obstacles
- Timer
- Objective Tracker
- Level transitions
- Visual guidance using lights
- User Interface
- Interactive Scripts

Design Decisions

Story

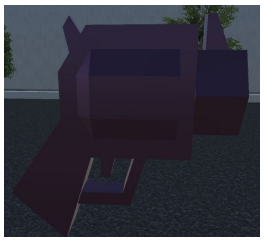
The baker has an order to fill before noon, and upon arriving at the shop the baker realizes something is wrong. Armed with their laser gun they proceed to gather items from the truck to bring to the storage basement. As the baker collects the items groups of icing blobs that have come to life attack. The baker kills the icing to reach supplies for the cupcakes. Once all things are collected from the basement the baker proceeds to the kitchen where they're faced with a giant living gingerbread man. When the baker arrives in the kitchen there are more enemies and more supplies have gone awry. The baker must kill the gingerbread and more blobs of icing while collecting the last of the supplies so they are able to deliver the cupcakes on time.

Characters

The baker

- 1st person
- Has cute laser gun
- One gunshot does 10 damage up to every 0.1 seconds depending on how quickly the player clicks the mouse
- Able to collect items
- Able to jump, run, and maneuver around obstacles
- Has 100 health

Gun Model - http://opengameart.org/content/small-revolver
Laser - Unity
FPS Controller Sound Assets - Unity



The slime

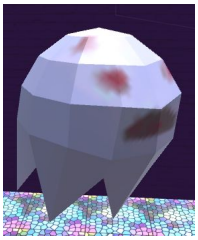
- Cute blobs of buttercream icing that became sentient due to the baker accidentally pouring Chemical X into the mixture instead of vanilla the previous night.
- Does 10 damage to the baker every 0.5 seconds
- Has 10 health

Slime Model - http://opengameart.org/content/little-slime
Slime Attack Sound - http://opengameart.org/content/fly-swatter-squish-sound

The ghost

- Blobs of sentient meringue (that darn Chemical X) that are able to float through objects due to their light and fluffy texture
- Does 20 damage to the baker every 1.5 seconds
- Has 20 health

Ghost Model - http://opengameart.org/content/cute-low-poly-ghost



The Gingerbread Man

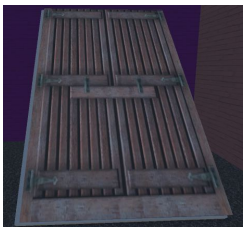
- Giant pastry made for local news show that comes to life (chemical X)
- Very angry for being objectified instead of enjoyed
- Is very angry
- Moves slowly
- Does 50 damage every 2 seconds
- Has 200 health
- Must be killed to win game

Gingerbread Model - http://www.turbosquid.com/3d-models/free-gingerbread-man-3d-model/577535

Levels

Level 1

- Parking lot with delivery truck, bakers car, trash cans, opening to basement, and back door
- Easy level
- Gives player a chance to learn controls
- Dim lighting to give appearance of dawn



Created using plane with texture.
Environment

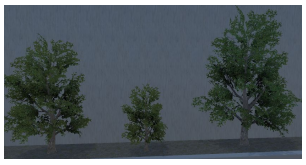
http://opengameart.org/content/fiat-topolino-1936
Environment

Created using cube with texture.
Environment and collectable item

http://opengameart.org/content/dumpster-3-cubic-yard-capacity
Environment

http://opengameart.org/content/lamp
Environment

Created using basic 3D models and textures.
Environment

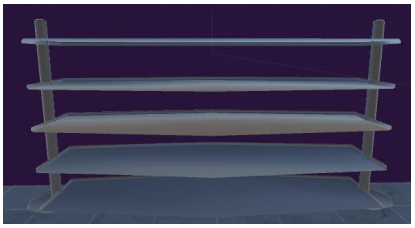


Unity standard assets

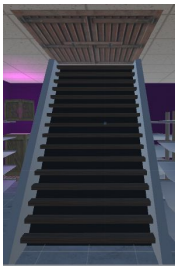
Environment

Level 2

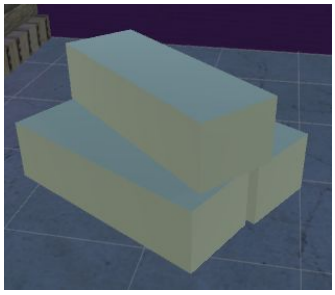
- Basement with lots of shelves and crates
- Maze like
- Stairs leading up to main floor
- Bright colors
- Dark lighting



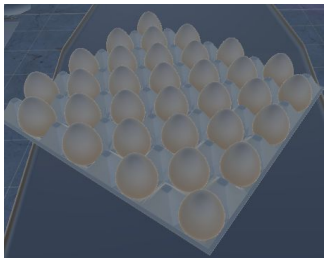
http://opengameart.org/content/sci-fi-prop-set
Environment



Created using basic 3D models and textures.
Environment



Created in Blender by Nicholas Granat
Collectable item



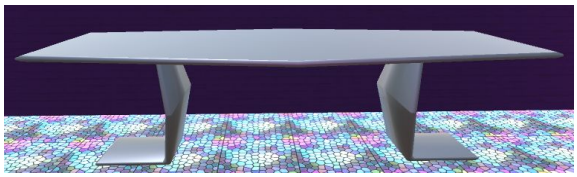
http://www.turbosquid.com/FullPreview/Index.cfm/ID/210332
Collectable item

http://www.turbosquid.com/3d-models/3d-sandbags-bag/877095
Collectable item

Level 3

- Kitchen with shelves, boxes, refrigerator, stoves,
- Small area due to timed aspect
- Boss level
- Brightly colored and clean
- Bright lighting

http://opengameart.org/content/household-appliances
Environment



http://opengameart.org/content/sci-fi-prop-set
Environment

User Interface

Start Menu

- Game objective
- Play button
- Exit game button

In Game

- Health bar
- Timer (Level 3)
- Items gathered

Pause Menu

- Resume game button
- Exit game button

Win Screen

- Picture of nice cupcakes
- Play again button
- Exit game button

Lose Screen

- Picture of burnt cake
- Try again button

- Exit button

Sound

Upbeat and eerie.

- https://www.youtube.com/watch?v=k9-TDHt7Tco
- https://www.youtube.com/watch?v=bKFixiZtKVU
- https://www.youtube.com/watch?v=sz9bD_Dmqwc

Tasks

Overall

- Add UI slider to track player health and provide visual feedback when registering damage. (Nicholas)
    - Add script to health slider that triggers on successful enemy attacks.
- Add UI text to track player progress towards objectives. (Nicholas)
- Add UI text that notifies player when level winning conditions have been met. (Myriah)
- Reset player's health to full after completing each level. (Nicholas)
- Add level transitions that transport the player to proceeding areas when tasks are complete. (Nicholas)
- Create pause menu prefab. (Myriah)
    - UI text, buttons, and images.
    - Scripts that disable player input.
    - Scripts that resume or exit application when corresponding buttons are pressed.
- Create win screen. (Myriah)
    - UI text, buttons, and images.
    - Scripts that disable player input.
    - Scripts that restart game or exit application when corresponding buttons are pressed.
- Create lose screen. (Myriah)
    - UI text, buttons, and images.
    - Scripts that disable player input.
    - Scripts that restart game or exit application when corresponding buttons are pressed.

Level 1

- Create walls, floor, and ceiling with planes and textures. (Myriah)
- Import models for scenery and obstacles. (Myriah and Nicholas)
- Apply texture and materials to model for environment. (Myriah and Nicholas)
- Create prefab for obstacle crates (mesh, material, texture, box collider). (Nicholas)
- Create prefab for collectible crates (mesh, material, texture, box collider trigger, point light). (Nicholas)
- Create prefab with standard asset FPSController to add incoming damage sphere collider, objective tracking, health tracking, and attack scripts. (Nicholas)
    - Create gun object to fire raycasts and register enemy hits with fire animation.
- Create a slime enemy prefab that moves along the ground towards the player and navigates obstacles (import model and texture, Nav Mesh Agent, attack range sphere collider, attack, health, and movement scripts). (Myriah)
- Create a vehicle obstacle using imported models for narrative purpose with box colliders, meshes, materials, and textures. (Nicholas)
- Construct a truck trailer to add explorable area and additional room to house collectables and enemies. (Myriah)
- Create basement door to use as exit trigger when all collectables are gathered. (Nicholas)
- Add dumpsters to add atmosphere and obstacle to the alley setting (imported mesh and texture, material, box collider). (Nicholas)
- Add doors to outside walls to further contribute to atmosphere and setting (plane, mesh, texture). (Nicholas)
- Add imported lamp models with point lights to add to atmosphere (imported model, texture, point light). (Nicholas)
- Place enemies in small groups of 4 around the level to hinder player from collecting objectives. (Nicholas)
    - Box collider triggers to change enemy slimes' speed of their Nav Mesh Agent from 0 to 5.5 and simulate aggro proximity.

Level 2

- Create a shelf prefab to be used as a maze component throughout the basement (import model, box collider, steel material). (Myriah)
- Create a pallet prefab (box collider, texture). (Nicholas)
- Create pallet stack from crate and pallet prefabs. (Nicholas)
- Create a slime enemy prefab that moves along the ground towards the player and navigates obstacles (import model and texture, Nav Mesh Agent, attack range sphere collider, attack, health, and movement scripts). (Myriah)
- Create spawn points at all corners of the basement that produce enemies at constant intervals (enemy manager, spawn point objects, spawn area scripts).
- Create a prefab for eggs collectible (import model, point light, mesh, textures, sphere trigger). (Myriah)
- Create a prefab for butter collectible (make model, point light, mesh, textures, sphere trigger). (Nicholas)
- Create a prefab for flour collectible (import model, point light, mesh, textures, sphere trigger). (Myriah)
- Create stairs to act as an entry and exit point for the player to the basement (36 box colliders, textures). (Nicholas)
- Place collectibles throughout the level so that the player must defeat enemies and navigate vertically and horizontally simultaneously. (Myriah)

Level 3

- Create table prefab obstacle (import model, steel material, and box collider). (Myriah)
- Place shelf prefabs along wall with stacks of crate prefabs to add vertical element to level movement. (Nicholas)
- Create stove object to act as objective area once the level boss is killed and objects are collected (import model, meshes, textures, and box colliders). (Myriah)
- Create gingerbread boss with increased size and strength compared to other enemies (import model, textures, Nav Mesh Agent, rigidbody, box collider for collision, box collider for frontal attack range, and boss health, movement, and attack scripts). (Myriah)
- Place many collectables across all surfaces to force player to traverse level and enemies. (Nicholas)
- Add timer element to UI canvas to add additional challenge to the final level. (Nicholas)

Challenges

- Animations for the prefabs of the collectable items.
- Getting the buttons on the pause menu to work.
- Layering canvas elements.
- Importing models.
- Occasionally glitch through wall.

Playtesting

Features:

- **Like:**
    - Several ways to traverse the levels
    - Background music
    - Vertical movement
- **Dislike:**
    - Weapon inaccuracy
    - Glitching through objects and walls
    - Enemies can get under player
    - Gingerbread man movement

Details that Enhance Gameplay Experience:

- Lighting
- Music
- Sound effects
- Placement of collectable items so player cannot just run through game

Details that Detract from Gameplay Experience:

- Ghost appearance
- Inability to shoot through shelves

Ideas for Future Iterations:

- Better shooting
- Better AI
- Bigger levels
- More in-depth objective
- More detailed story line
- Better Models