

# Frightbound

Version 2.9



**Date:** 09/25/2024

**Developed by:** Carrot Trail Studios

**Team Members:** Enci Zheng, Jack Parent, Luna Stephenson,  
Samantha Thompson, Somesh H. Gopi Krishna

# **TABLE OF CONTENTS**

- 1. GAME OVERVIEW**
- 2. GAMEPLAY MECHANICS**
- 3. ENEMY DESIGN**
- 4. ENVIRONMENT & LEVEL DESIGN**
- 5. ART & SOUND DIRECTION**
- 6. PROJECT TIMELINE**
- 7. TEAM BIO – Carrot Trail Studios**
- 8. POST-MORTEM – Challenges & Learnings**

# 1. GAME OVERVIEW

**Genre:** Survival Horror / Puzzle Adventure

**Platform:** PC (Unity 3D)

**Target Audience:** Fans of suspenseful horror games like *Amnesia: The Dark Descent*, *Outlast*, and *Visage*.

**Two Sentence Pitch:**

Trapped in a haunted castle, players must navigate eerie halls, solve puzzles, and avoid a terrifying entity known as "HER." The only way out is to retrieve six hidden keys—before she finds you first.

**Two Minute Pitch:**

Frightbound is a first-person horror adventure that immerses players in an eerie castle where danger lurks in the shadows. Players must search for six scattered keys while managing light, sound, and stealth to evade the terrifying presence of "HER." The game emphasizes immersive horror with AI-driven enemy behavior, atmospheric level design, and dynamic soundscapes that react to player movement. Without combat abilities, survival relies on quick thinking, hiding, and clever use of the environment.

## 2. GAMEPLAY MECHANICS

### 2.1 Core Gameplay Loop

- Explore the haunted castle, searching for six keys to unlock the exit.
- Avoid "HER" by staying quiet, hiding, and using distractions.
- Use environmental cues (creaking floors, flickering lights, distant whispers) to anticipate danger.
- Balance risk and movement—running increases noise but may be necessary for survival.

### 2.2 Controls

Action	Key
Move	WASD
Sprint	Left Shift
Crouch	Left Ctrl

## 2.3 Stealth & Sound System

- Walking and running generate sound that "HER" can detect.
- Crouching reduces noise but slows movement.
- Players can knock over objects (vases, furniture) by accident, drawing unwanted attention.

## 2.4 Light & Visibility Mechanics

- Certain areas are safer in darkness, but too much time in complete darkness increases fear (distorted vision and breathing sounds).
- Light sources can be toggled but may attract "HER" if overused.

## 2.5 Key Collection System

- The six keys **always spawn on the floor** but are **randomized across 15 preset locations**.
- This ensures replayability while keeping balance and fairness for the player.

# 3. ENEMY DESIGN – "HER"

- **Unpredictable AI:** She doesn't follow a set patrol path; she roams dynamically based on sound and movement.
- **Sound-Based Hunting:** If she hears noise, she moves toward the source.

- **Vision Mechanics:** "HER" has limited sight but can sense movement in well-lit areas.
- **Phases of Aggression:**
  - **Passive:** Wanders the castle, occasionally whispering or knocking over objects.
  - **Suspicious:** Stops and listens if a noise is detected nearby.
  - **Hunting:** Moves quickly toward the source of the noise.

#### **Escape Strategies:**

- **Hide in Closets or Under Furniture** – But stay silent, as breathing too loudly may give you away.
- **Use Environmental Distractions** – Throw objects to lure her away.
- **Outmaneuver Her in the Maze-like Castle** – Memorize safe paths and hiding spots.

## **4. ENVIRONMENT & LEVEL DESIGN**

### **4.1 Setting: The Haunted Castle**

- **Single Level** consisting of multiple interconnected rooms with unique atmospheres.
- Each room has distinct visual and audio cues to aid navigation and build tension.
- Randomized key placement ensures each playthrough feels different.

### **4.2 Key Locations in the Castle**

- **The Grand Hall** – The main hub, filled with towering statues and a massive chandelier.
- **The Library** – Creaking wooden floors, dim candlelight, and hidden notes revealing the castle's past.
- **The Dungeon** – Tight corridors and flickering torches, where whispers grow louder.
- **The Attic** – Dusty and cluttered, a perfect place to hide—but also easy to get trapped.

### **4.3 Puzzle & Key Placement**

- **Keys are always on the floor** but randomized within 15 preset spawn locations.

- Some doors require solving environmental puzzles (aligning symbols, shifting bookshelves, etc.).

## 5. ART & SOUND DIRECTION

### 5.1 Visual Style

- Semi-realistic but stylized, inspired by gothic horror architecture.
- High contrast lighting with deep shadows and glowing candlelight.
- Subtle environmental animations (dust particles, flickering lights, slow-moving shadows).

### 5.2 Sound Design

- **3D Positional Audio:** Players hear "HER" before seeing her, using echoes and distance-based audio cues.
- **Environmental Cues:** Random creaks, whispers, and unsettling noises to keep players on edge.
- **Heartbeat & Breath Mechanics:** The closer "HER" gets, the louder the heartbeat and breath sounds.

## 6. PROJECT TIMELINE (7 WEEKS)

### Week 1-2: Pre-Production

- Define core mechanics and AI behavior.
- Outline level structure and visual style.

### Week 3-4: Prototype & Core Systems

- Implement movement, hiding mechanics, and AI pathfinding.
- Develop sound and light interaction.
- Test player-enemy interactions.

### Week 5-6: Level & Asset Creation

- Build the castle environment with key locations.

- Implement sound design and environmental storytelling.
- Playtest pacing and difficulty.

## **Week 7: Final Polish & Optimization**

- Balance AI difficulty and unpredictability.
- Optimize performance for smooth gameplay.
- Final playtesting and bug fixing.

## **7. TEAM BIO – Carrot Trail Studios**

### **Enci Zheng – Concept & Environment Artist**

- Designed gothic architecture and the eerie atmosphere of the castle.

### **Jack Parent – Game Designer & Narrative Designer**

- Developed the core gameplay loop and environmental storytelling.

### **Luna Stephenson – Programmer**

- Built AI behavior and environmental interaction systems.

### **Samantha Thompson – 3D Artist & Animator**

- Created 3D character models, animations, and haunting visual effects.

### **Somesh H. Gopi Krishna – Game Designer, UI/UX Designer & Programmer**

- Designed intuitive UI elements and optimized gameplay systems.

## 8. POST-MORTEM – CHALLENGES & LEARNINGS

### What Went Right?

- **Terrifying AI:** Playtesters praised the unpredictable behavior of "HER."
- **Atmosphere & Sound Design:** Players felt fully immersed in the horror setting.
- **Balanced Tension:** The mix of exploration, stealth, and environmental storytelling kept players engaged.

### Challenges Faced:

- **AI Pathfinding Issues:** Early versions had "HER" getting stuck or behaving too predictably.
- **Optimizing Randomization:** Ensuring keys spawned in fair but varied locations took fine-tuning.

### Final Takeaway:

Creating fear through design—rather than relying on jumpscares—was our proudest achievement.