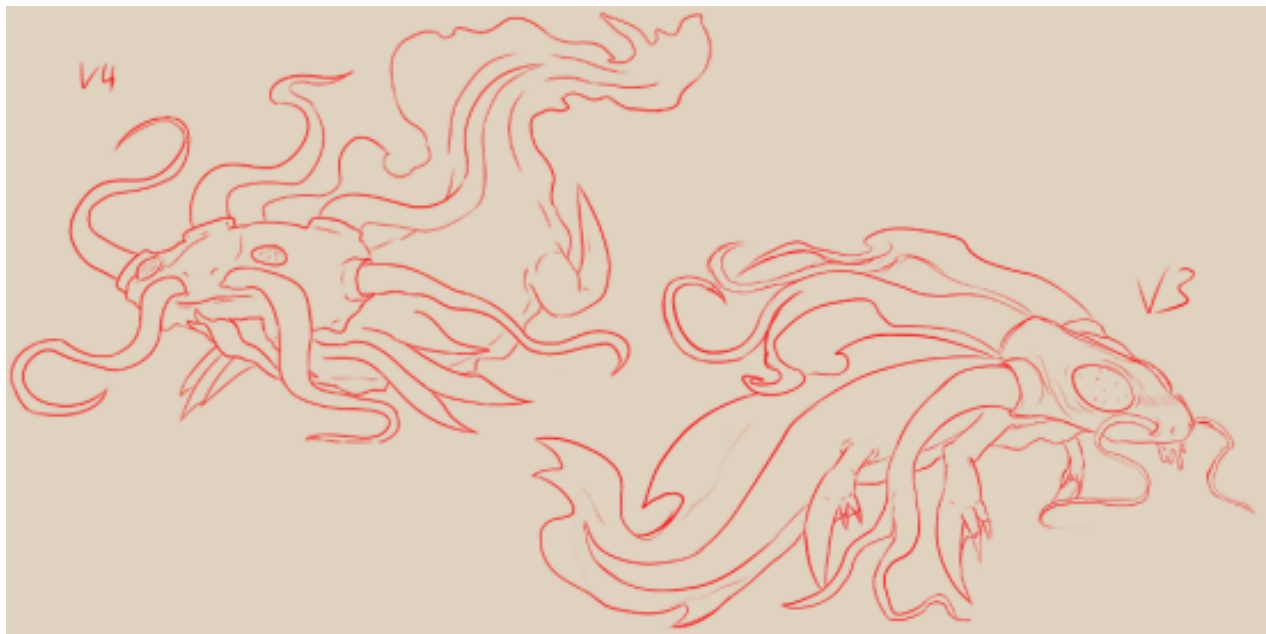# Horror Tension System

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1. Overview & Design Goal

The objective of this system is to create a **dynamic, adaptive fear escalation mechanic** that heightens player tension and engagement without relying on combat mechanics. The system continuously monitors **player behavior**, including noise levels, lighting conditions, movement patterns, and attentional focus, to adjust the environment and the Whisperling's behavior in real time.
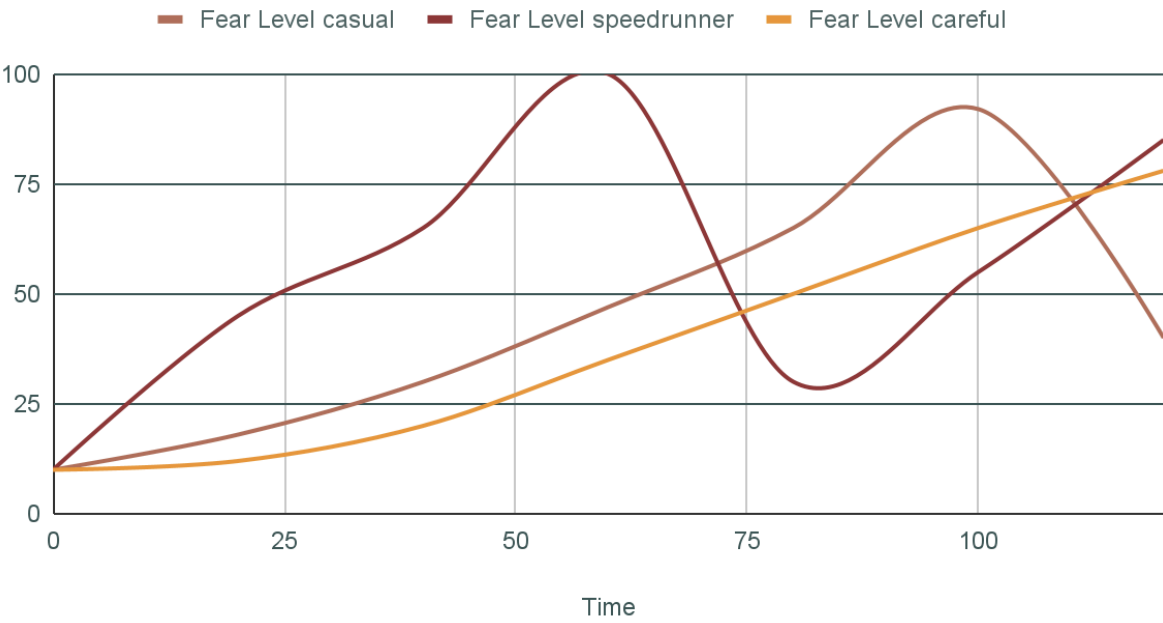
The **core concept** revolves around a **Fear Index = FI (0–100)**, a quantifiable metric representing the player's perceived threat level. As the index rises, the Monster evolves from a **harmless, distant presence** into a **fully threatening entity**, ensuring that fear is **psychologically driven** rather than combat-driven. This approach emphasizes suspense, environmental storytelling, and emergent horror scenarios.
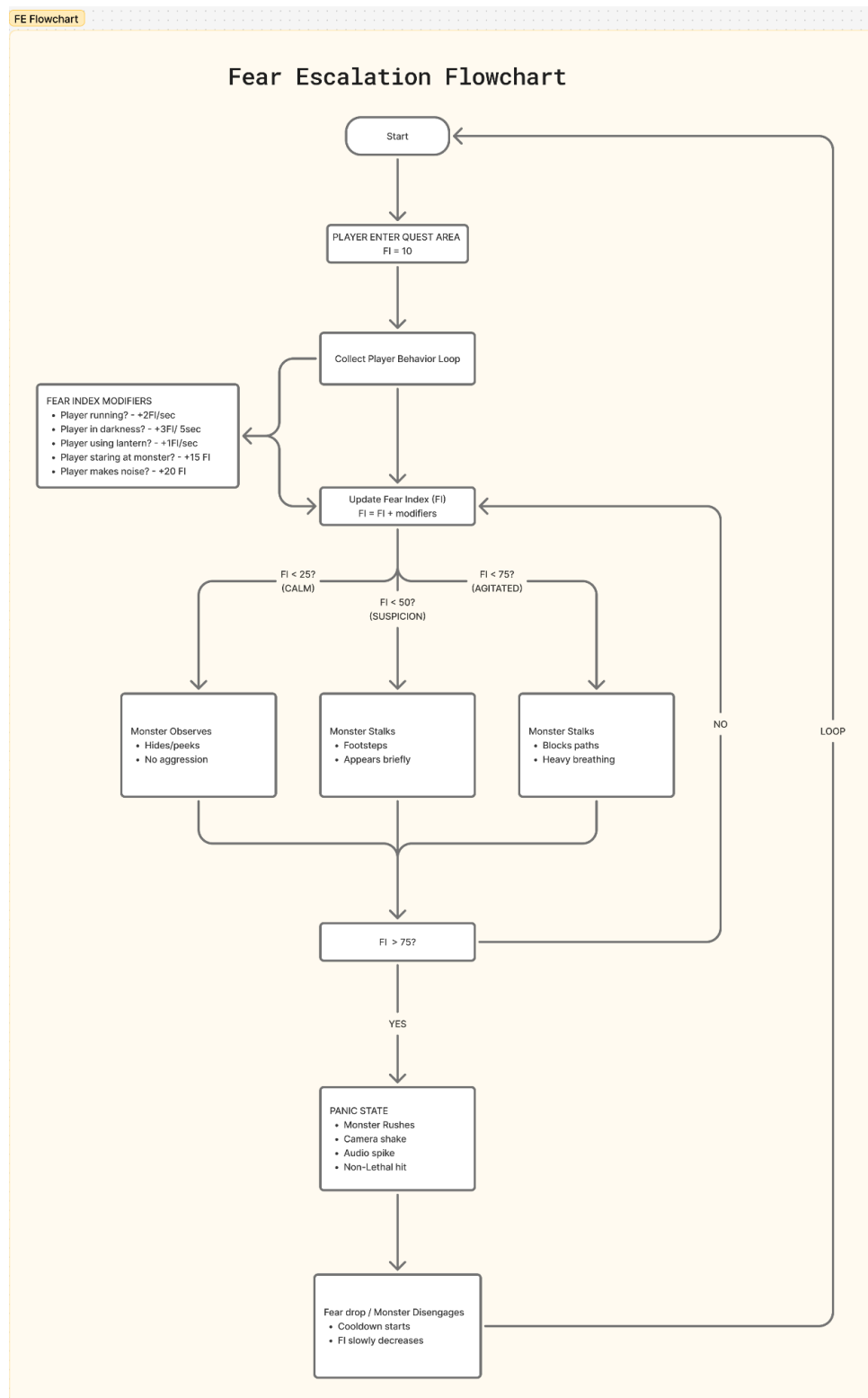
2. Fear Escalation Curve Overview

Range	Player Behavior Trigger	Monster Behavior	Environmental Effects	Audio Cues	Notes
0–25	Walking, normal light use	Observes from afar	Normal lighting	Soft ambience	Setup phase
25–50	Running, long darkness	Stalking begins	Slight flickers	Distant footsteps	Raises tension
50–75	Noise, loud actions	Closer stalking, blocking paths	Shadow movement	Whispering	Player feels hunted
75–100	Sprinting, staring directly at the monster	Rushes player (non-lethal)	Major flickers	Loud spike	Climax moment

Fear Index Table
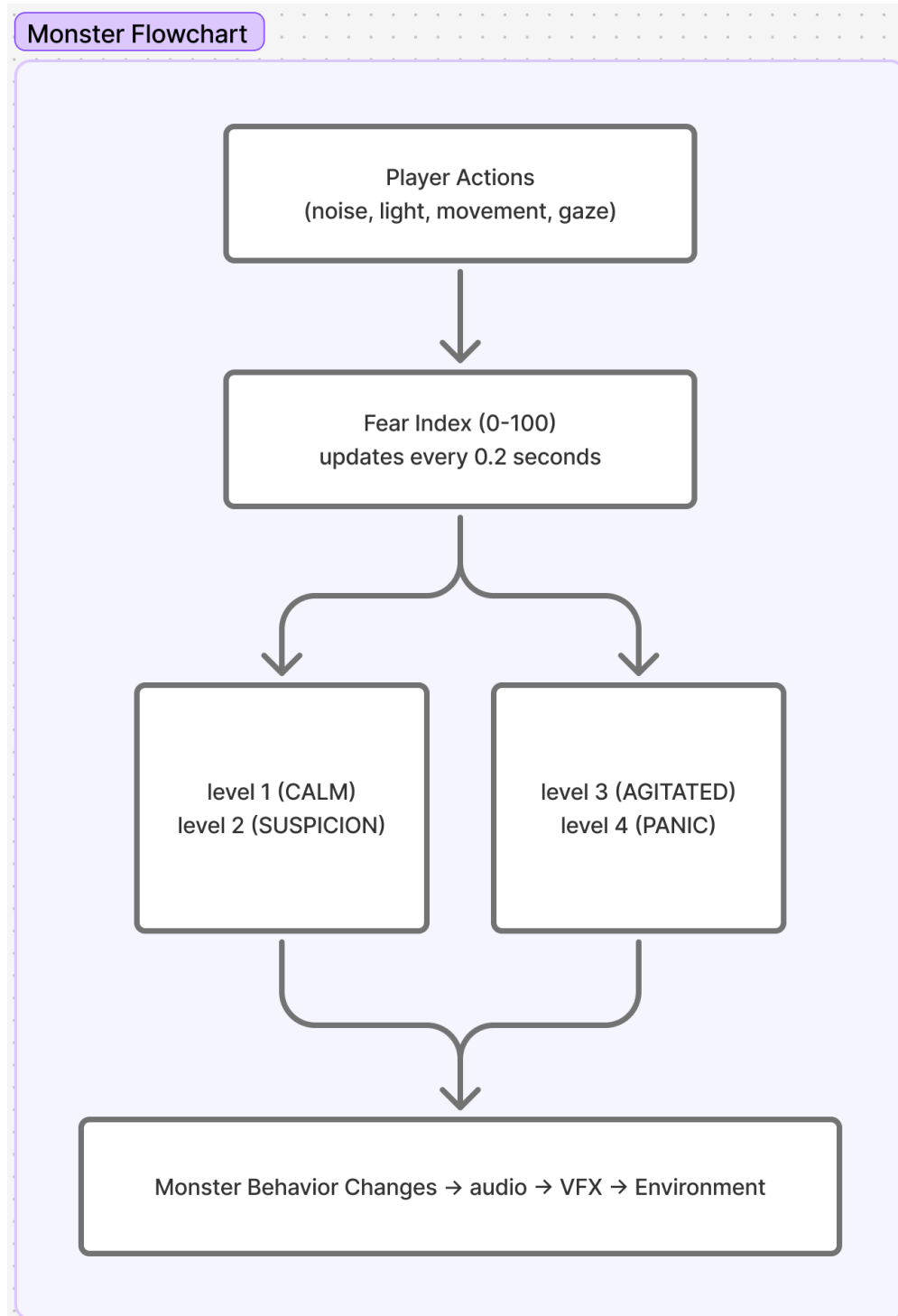
3. Player → System → Escalation Flow

FE Flowchart

Fear Escalation Flowchart

Start

PLAYER ENTER QUEST AREA
FI = 10

Collect Player Behavior Loop

FEAR INDEX MODIFIERS
- Player running? – +2FI/sec
- Player in darkness? – +3FI/ 5sec
- Player using lantern? – +1FI/sec
- Player staring at monster? – +15 FI
- Player makes noise? – +20 FI

Update Fear Index (FI)
FI = FI + modifiers

FI < 25?
(CALM)

FI < 50?
(SUSPICION)

FI < 75?
(AGITATED)

Monster Observes
- Hides/peeks
- No aggression

Monster Stalks
- Footsteps
- Appears briefly

Monster Stalks
- Blocks paths
- Heavy breathing

FI > 75?

NO

LOOP

YES

PANIC STATE
- Monster Rushes
- Camera shake
- Audio spike
- Non-Lethal hit

Fear drop / Monster Disengages
- Cooldown starts
- FI slowly decreases

Player Action Fear Values

Player Action	Fear Added	Duration	Notes
Walk	0	Continuous	Safe movement
Run	2/sec	While running	Makes tension rise
Uses a light source	1/sec	While shining	Attracts monster interest
Stay in dark	3 every 5 sec	Timer-based	Fear of unknown
Look at monster	15 every 3 sec	Timer-based	Very effective
Make loud noise	20	One-time	Jump in escalation

Inspiration: Alien Isolation tracked detection risk

4. Monster Behavior Design

Monster Flowchart

```
        Player Actions
   (noise, light, movement, gaze)
                |
                v
        Fear Index (0-100)
      updates every 0.2 seconds
                |
        +-------+-------+
        v               v
  level 1 (CALM)   level 3 (AGITATED)
  level 2          level 4 (PANIC)
  (SUSPICION)
        |               |
        +-------+-------+
                v
  Monster Behavior Changes → audio → VFX → Environment
```

Monster Behavior

State	FI Level	Behavior Details
Calm	0−25	Hides in shadows, observes from afar, and subtle environmental disturbances.
Suspicion	25−50	Brief appearances, audible footsteps or whispers, partially visible in peripheral vision.
Agitated	50−75	Actively blocks paths, glowing eyes indicate imminent danger, unpredictable movement patterns.
Panic	75−100	Executes high-intensity rush scare sequences, retreats strategically after interaction to maintain tension.

Behavior is adaptive and context-aware, meaning the Monster can dynamically choose strategies based on player actions, increasing replayability and emergent fear scenarios.
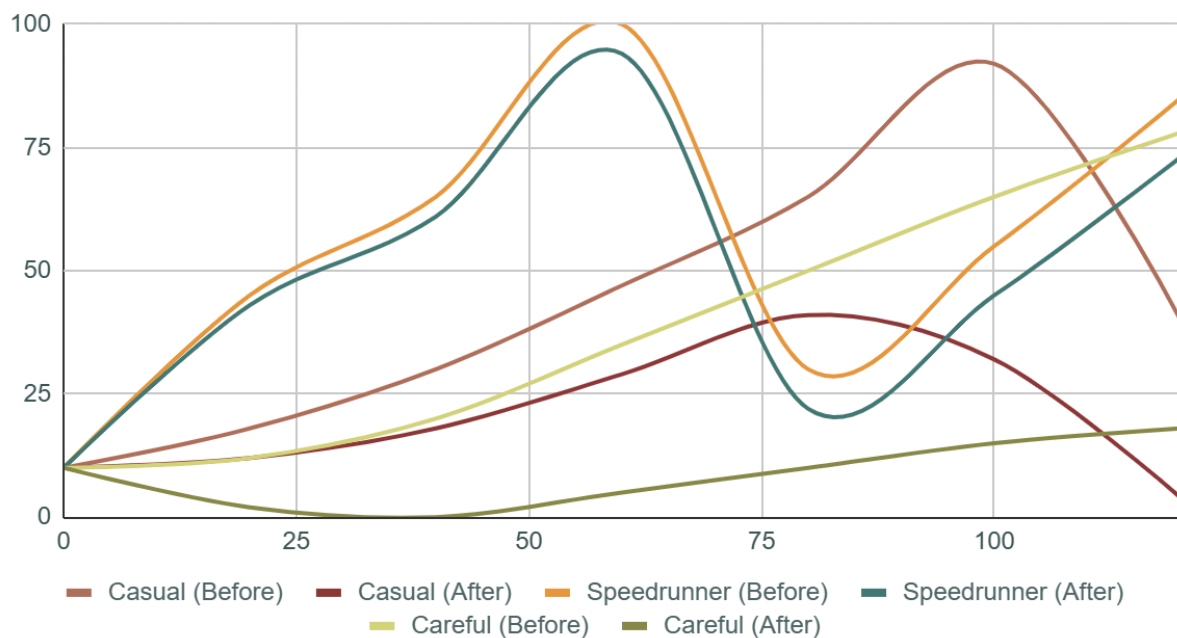
5. Scenario Example:

Player runs in darkness → Fear rises to 60 → Monster blocks the corridor → Player hides in a crate → Fear drops → Monster retreats

6. Fear Index Recovery

Player Action / Condition	FI Change	Type	Notes
Safe light (bright area)	−1/sec	Passive	Only if walking or standing still
Hiding successfully	−15	Conditional	Reset mechanic
Staying silent	−5 every 10 sec	Conditional	No running, no noise
Safe zone	−3/sec	Environmental	Monster cannot enter

Fear Index Table (Before vs After Recovery System)

Legend: Casual (Before), Casual (After), Speedrunner (Before), Speedrunner (After), Careful (Before), Careful (After)

The system becomes less linear and more dynamic

Before recovery, Fear only increased, producing predictable, linear curves.
After adding recovery, each player profile experiences **peaks and valleys**, making tension more organic and harder to anticipate.

This is good because:

- Horror becomes less scripted
- Encounters feel more reactive to the player
- The system gains unpredictability without randomness

Casual players now experience the most "rollercoaster" pattern

Casual players show the largest **contrasts** between Before/After:

- They no longer follow a steady rising slope
- They get mid-intensity spikes and drops
- They naturally hover around 30–70 FI

This makes their experience **emotionally varied**, which is ideal for general players.

Careful players now experience meaningful tension

Originally, careful players almost never reached dangerous levels.
 With recovery + escalation combined, their curve now:

- Starts low
- Dips when they play safely
- *Still climbs over time*
- Ends with moderate fear

This creates **slow-burn tension** for cautious players, instead of them bypassing the horror entirely.

Conclusion

This system turns fear into a living mechanic. By combining escalation with recovery, the Fear Index creates natural peaks and dips that keep players tense without overwhelming them.

Each playstyle produces its own curve, making the Monster feel adaptive and alive. Instead of linear pacing, the game now breathes, building suspense, releasing pressure, and tightening again. This foundation sets the stage for reactive horror encounters that stay engaging from start to finish.