

ECHO OF CRASH

Game Overview

A peaceful family drive is interrupted by three sudden accidents. Avoid the impact with a timed response, or enter the frozen moment as a spirit. Explore the vehicles, uncover the evidence and bring people back before time runs out. Every rescue costs precious seconds. Every discovery changes how you read the scene. Your choices shape the family's mood and the rest of the journey, all the way home.

YIBO WANG / GAME, LEVEL & NARRATIVE DESIGN

Personal project · Unreal Engine 5.8.2 · Windows
3 connected encounters / 7 clues / 10 rescues / 4 emotional outcomes

PLAY FREE / hajimi9914.itch.io/echo-of-crash

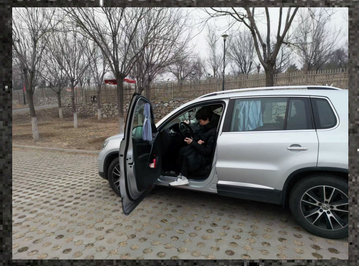
▷ GAMEPLAY VIDEO

Watch on YouTube / 1:54

Inspiration

Game Concept

The inspiration for this game comes from my own love of driving and my experiences on the road. Having obtained my driver’s license as soon as I was eligible, I’ve been driving for over three years and frequently encounter reckless drivers. This game explores the emotional consequences of such behavior. By giving the player the unique ability to pause time during accidents, it challenges them to investigate crashes, collect evidence, and make moral choices. Through this, I hope to encourage players to reflect on the impact of their actions and the importance of responsible driving.







Game Objective

As a driver with the ability to pause time, your goal is to investigate accidents, collect evidence, rescue people, and ensure justice is served. The game challenges you to balance collecting evidence and saving as many lives as possible, with your actions determining the emotional outcome of the family’s day.

Research

I researched road rage psychology, common traffic accident causes, and time manipulation mechanics to create an engaging, realistic gameplay experience. By studying interactive narrative structures and traffic safety, I aimed to design a game that encourages thoughtful reflection on the consequences of reckless driving.

Reference

For the development of this game, I drew inspiration from several sources that blend narrative-driven gameplay with decision-making mechanics. Key references include:

- "Quantum Break": The concept of time manipulation and the ability to freeze or slow time in the game influenced the time-pausing mechanic in my project.
- "Heavy Rain": The game’s interactive narrative and moral decision-making aspects provided valuable insight into how to structure meaningful choices that directly affect the outcome of the story.
- "Life is Strange": The time-rewind mechanic and its emotional storytelling served as a reference for creating a compelling narrative that involves personal stakes and consequences.
- Traffic Safety Studies: Research into real-world traffic accidents and the psychology behind road rage shaped the thematic and gameplay elements of the game, ensuring a realistic portrayal of emotional driving behavior.

These references guided both the gameplay design and the narrative elements, allowing me to create an experience that blends suspense, decision-making, and moral reflection.









A weekend interrupted. A moment to act.

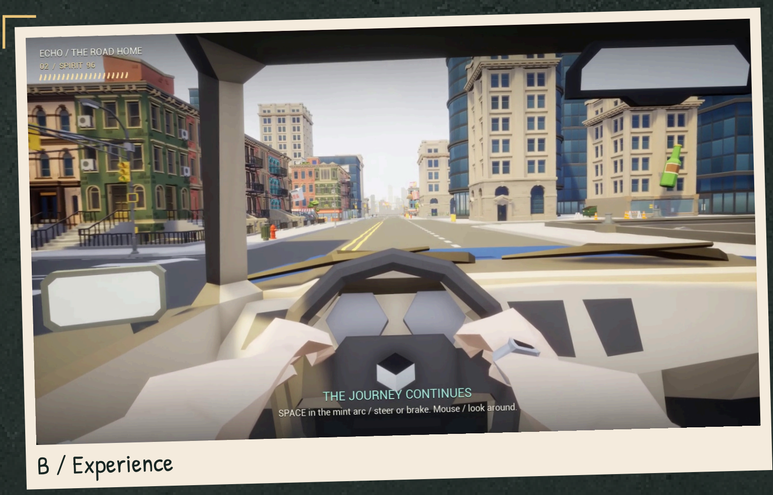
Echo of Crash turns a road accident into a small, readable world of choices: avoid the impact, or enter a suspended moment to recover evidence and bring people back.



A / Context

Design pillars

Read the space. Choose under pressure. See the consequences.



B / Experience



C / Feedback

My role

Yibo Wang · Personal game project
Game, level and narrative design; interaction direction; encounter staging and iterative playtesting.

Current scope

Three connected encounters · Seven evidence entries · Ten rescue opportunities · Four emotional outcomes
Windows / Unreal Engine 5.8.2

The original concept and references are retained on the preceding two pages. The following pages document the evolved, playable design.

Safety is a success, too.

A missed input opens a different form of agency. It does not simply restart the drive.

Drive → One QTE → Avoid the crash → Return to the road

Avoid the crash → Investigate → Reconstruct



01 / Avoidance



02 / Investigation



03 / Equal reward

Avoid the impact

The wheel makes the driving action familiar. A gold marker crosses a separate mint timing arc: press SPACE once. Success visibly swerves or brakes, then continues the road.

Act inside the moment

Failure leads through impact and a white veil into investigation. Swim, examine clues, rescue people, reconstruct the cause, then return to reality.

Protect the meaning of avoidance

A safe encounter awards 1,000 journey points and a Spirit gain. Unneeded evidence and rescues are not counted as failures.

After either branch, the same pickup follows the authored roads to the next encounter. No unexplained jump to another crash.

A rescue is a commitment.

Evidence and people compete for the same limited time. Difficulty changes pressure, not the story or the set of clues.

01 Story
120 s investigation / +5 s rescue cost
70 starting Spirit / +10 safe avoidance
First idle guidance after 18 s

02 Journey
100 s investigation / +8 s rescue cost
60 starting Spirit / +8 safe avoidance
First idle guidance after 22 s

03 Tension
80 s investigation / +12 s rescue cost
50 starting Spirit / +6 safe avoidance
First idle guidance after 30 s

3 seconds to commit + preset rescue cost → *Less time left to search.*

What four rescues cost before any travel or search





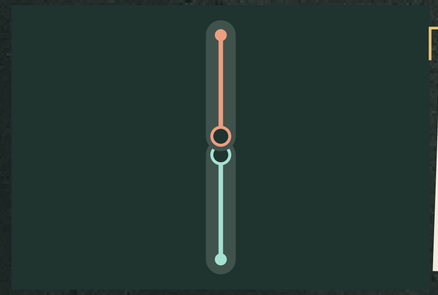
Preventing harm remains a full-value outcome.

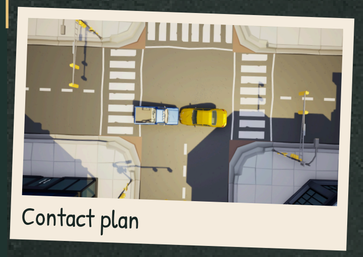
Every rescue also requires a real three-second hold. In chapter two, rescuing all four people consumes at least 32 / 44 / 60 seconds across the three presets, before travel or search.

Three incidents. Three spatial questions.

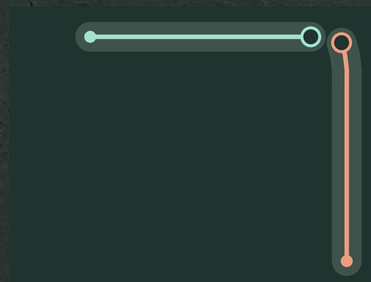
The authored route supplies continuity; each encounter changes how the player reads the road and the suspended tableau.

same journey / changing spatial pressure



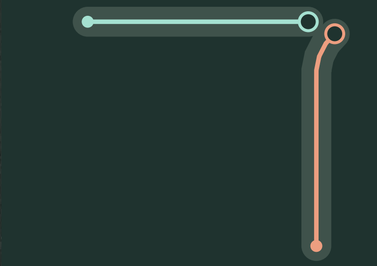


Contact plan





Contact plan





Contact plan

01 / Head-on threat

An oncoming sedan occupies the pickup's lane. The first case introduces an intimate two-object story and three people to save.

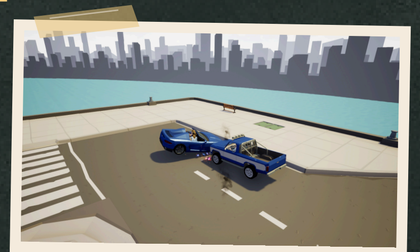


Frozen tableau

2 clues
3 rescues

02 / Crossing conflict

A sports car enters from the side street. Contact lands on its right-front side. Two concealed weapons challenge an apparently affectionate pose.



Frozen tableau

2 clues
4 rescues

03 / Restricted escape

A heavy truck turns across a narrow approach. Successful avoidance is a full stop, allowing the truck to clear; the investigation adds a third clue.



Frozen tableau

3 clues
3 rescues

Route diagrams use recorded in-game approach samples. Mint = pickup; coral = other vehicle. Right-hand traffic and the left-hand-drive cabin stay consistent.

Teach observation before judgment.

The bottle establishes impairment. The framed wedding photograph adds grief and personal context without excusing the dangerous driving.

Read the collision as a space to explore



01 / Impact geometry

Read

A direct head-on threat is easy to understand from the cabin. In the frozen moment, the sedan and pickup form a compact search space.

Discover

Two evidence entries: open bottle and wedding photograph. The photograph belongs beside the driver, rather than floating as an abstract collectible.

Decide

Three rescue opportunities: the grieving driver, your wife and your own body. Responsibility and the value of a life remain separate questions.

Two objects / three lives

The first investigation teaches a compact search around two cars.



02 / Close reading



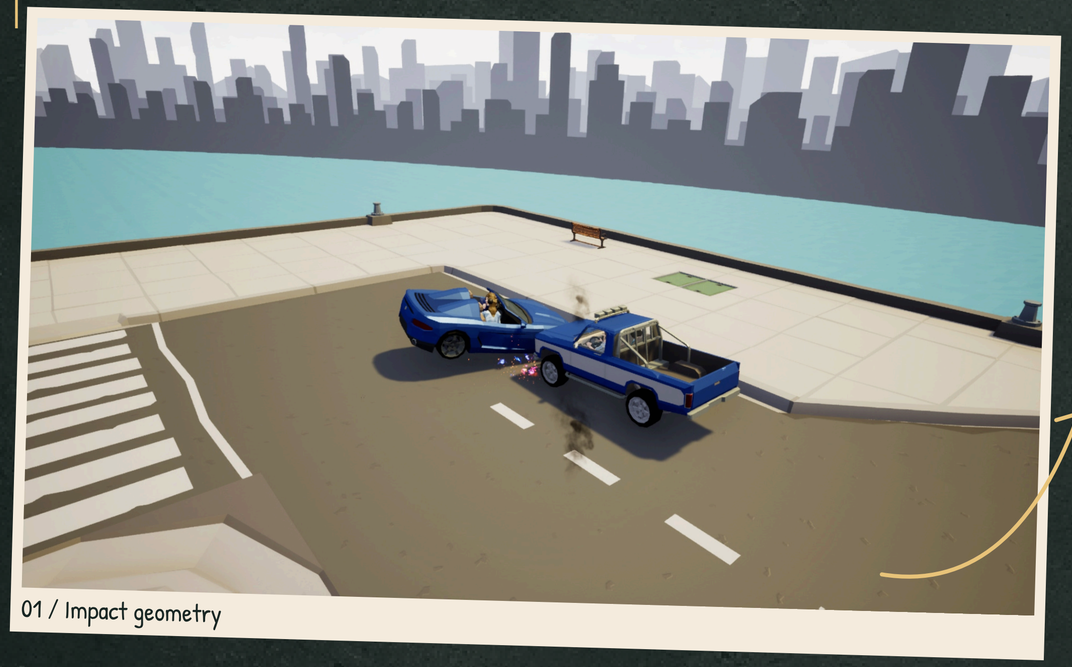
03 / Wedding photograph / V14 capture

Avoidance: a visible lateral manoeuvre. Investigation: both similarly sized vehicles lift in the suspended impact tableau.

Make the first reading incomplete.

An affectionate seated pose masks a confrontation. Players must move around the cabin and inspect the hands to challenge their first interpretation.

Read the collision as a space to explore



01 / Impact geometry

Spatial setup

The sports car approaches on an actual side road and turns into the collision. The pickup contacts its right-front side, rather than meeting it head-on.

Evidence placement

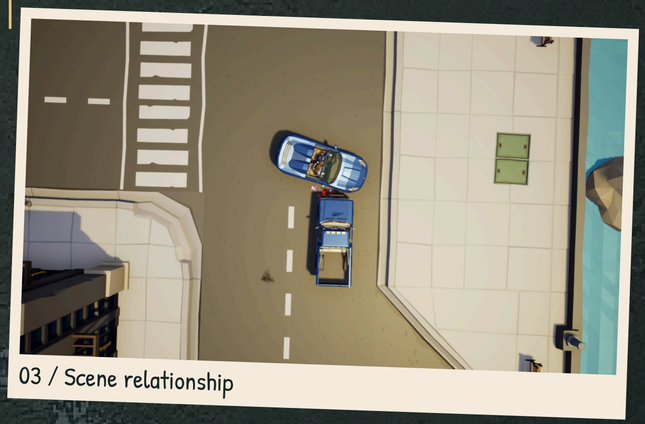
A rounded stone is held by the boy; a knife is held by the girl. Both clues are present on every difficulty. Their positions tie intention to character.

Look behind the pose

Hand placement makes the hidden intentions physically discoverable.



02 / Hidden hands



03 / Scene relationship

Pressure change

Four people replace chapter one's three. The same rescue rule now demands more time, even before the player considers the two hidden objects.

Impact readability: the lighter sports car lifts, with the contact side lower and the far side higher. The pickup stays level.

A glance away becomes a chain of evidence.

The final encounter connects a readable driving hazard to a close inspection of the truck cabin: a meal voucher, two burgers and spilled cola.

Read the collision as a space to explore



01 / Impact geometry

Approach and avoidance

The pickup follows the restored eastbound route in the right lane. At the narrow turn, stopping is legible and credible; swerving through the truck is not.

Physical storytelling

The heavy truck stays grounded while the pickup lifts. The voucher faces the driver's eyes. Food and frozen liquid sit on actual cabin surfaces.

Same event, three views

The approach, impact and cabin evidence must describe one coherent accident.



02 / Close reading



03 / Scene relationship

Causal reading

The intended cause is reading the voucher while driving. The burgers and spill support distraction; the game does not substitute catching the cup as the cause.

Three evidence entries and three rescues. The complete set supports the deduction; a half-finished search cannot claim the full explanation.

Change the scale, not the sense of place.

The first-person cabin becomes a third-person swimming space. A tiny glowing figure makes the car interior feel large enough to explore.



A / Context

Embodied movement

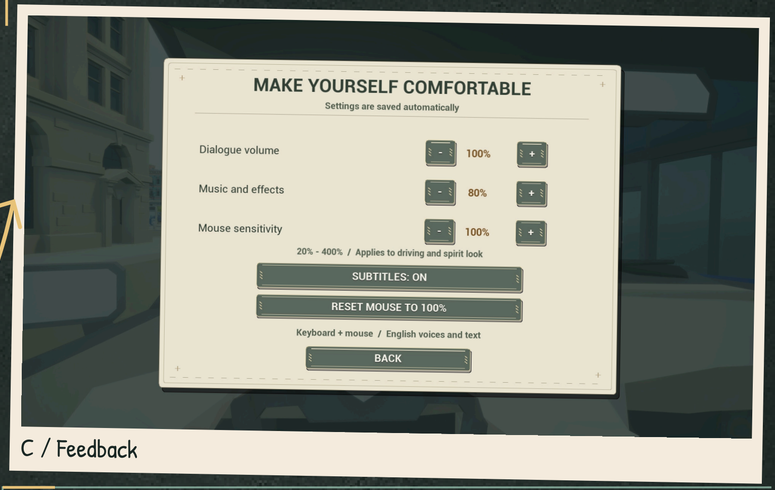
WASD swims; SPACE rises; CTRL descends; SHIFT accelerates. Inertia gives floating weight, while responsive mouse look keeps observation comfortable.

A bounded otherworld

Fog is specific to the frozen accident. Invisible limits keep the search near the crash, supported by boundary guidance rather than an endless empty city.



B / Experience



C / Feedback

Close reach

Evidence requires 14 cm and rescue 24 cm from the spirit's upper-body contact point. A nearby prompt can ask the player to move closer before interaction works.

The awakening conversation locks movement and the clock. The player receives the objective before being asked to spend investigation time.

Collecting is only the first reading.



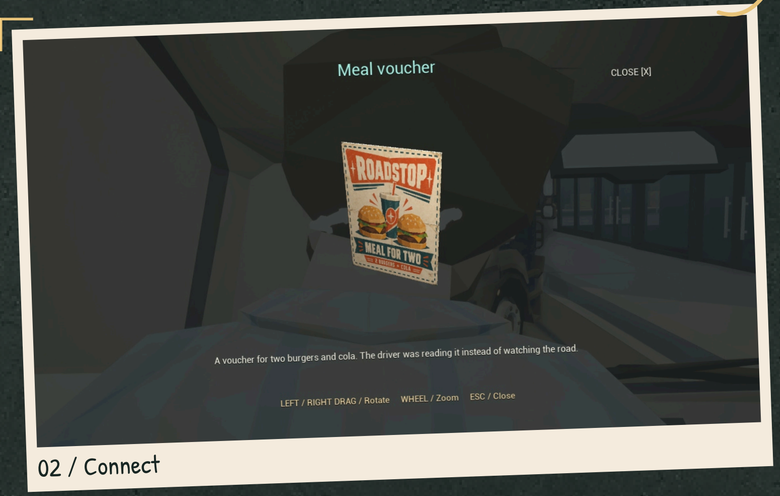
01 / Notice

1 / Encounter it in the world

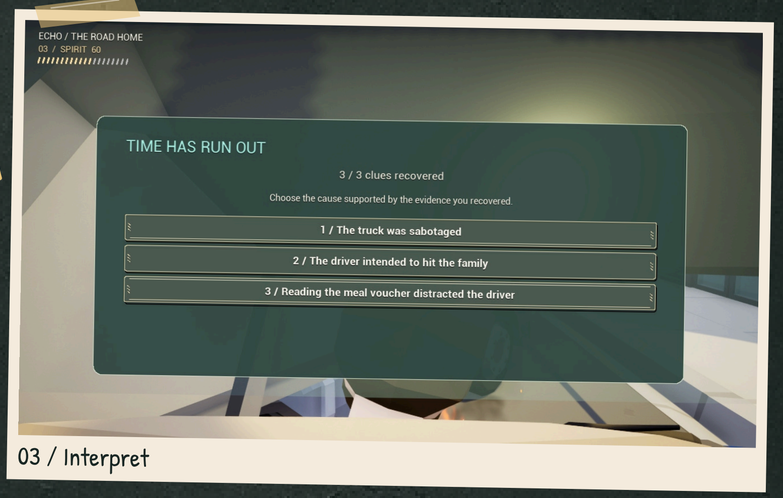
Props belong to a person and a place: a grip, a passenger seat, a cabin surface. Close inspection connects the object to the situation.

2 / Revisit it without pressure

Evidence moves into the journal. Number keys or TAB reopen it; drag rotates, the wheel zooms. Inspection pauses the countdown and adds an English description.



02 / Connect



03 / Interpret

3 / Support a conclusion

A complete set unlocks three interpretations. Missing evidence leads to an explicit unresolved return at timeout, rather than credit for an unsupported guess.

Collected evidence and rescued bodies dissolve gradually, leaving a legible record of what the player has already done.

Let the player notice first.

Guidance changes with the player's situation. The Echo gives context before revealing a location.



A / Context

Arrival / orientation

The first spoken line waits 2.3 seconds through emergence. Initial dialogue explains the unfamiliar state, the search and the possibility of rescuing people.

Proximity / context

Approaching a vehicle or an interactable prompts relevant observations. The prompt distinguishes noticing an object from being close enough to reach it.



B / Experience



C / Feedback

Delay / assistance

After inactivity, an indirect clue suggests where to look. Q requests one remaining target's direction for 50 points; repeated requests reveal different remaining targets.

The journal pauses time. Paid hints reduce the final score, not the underlying Spirit reward calculation. Assistance is an explicit choice.

Carry the day forward.

Spirit connects the episodes. It records how the day feels, while score records how much the player recovered.



The day begins with a promise.



The destination stays; its emotional tone changes.

Spirit travels with you

Score measures recovery. Spirit connects the personal consequences across all three episodes.

0 → 100

0 / Return home

The trip ends early. The couple returns home sadly instead of reaching the planned destination.

1–34 / A difficult arrival

They still go together, but the accumulated strain changes the performance and mood.

35–74 / A quiet evening

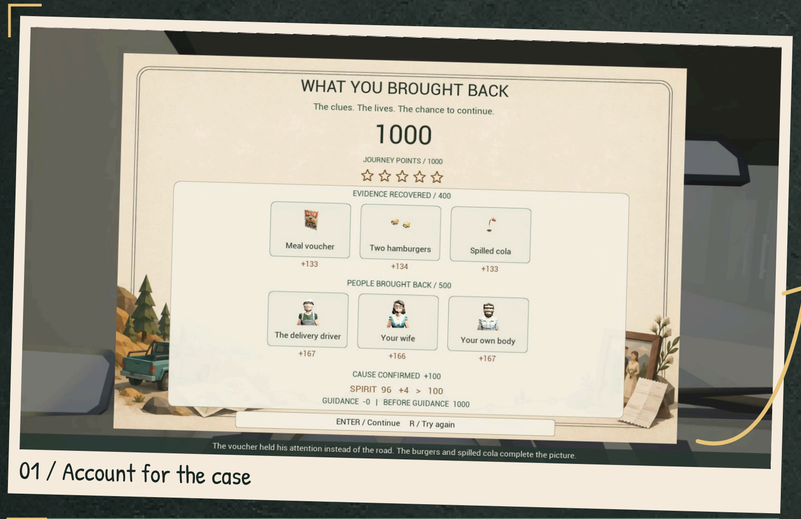
A calm arrival acknowledges an imperfect day that can still continue.

75–100 / A joyful arrival

The couple arrives with the energy and warmth of the weekend they hoped for.

Standard Spirit change is round((raw case score − 650) / 20). Empty cases use a larger preset loss; Story softens ordinary losses and Tension increases them. Safe avoidance adds 10 / 8 / 6.

Resolve the case in layers.



01 / Account for the case

Account for the actions

Evidence cards stamp in, then rescued portraits, then the total. Per case: evidence 400 points, rescues 500, supported correct deduction 100. Hints deduct 50 each.

Return to believable time

The airborne instant becomes a grounded accident scene. Police arrive only when the cause is supported and the responsible participant has been rescued.



02 / Grounded aftermath



03 / Emotional consequence

Close the emotional beat

Police arrival, conversation, cuffing, escort and departure precede the protagonist's reaction. The cleared road resumes the journey; accumulated Spirit shapes the couple's final arrival.

Star thresholds: 2 at 350, 3 at 600, 4 at 800, 5 at 950. A perfect investigation and safe avoidance both reach 1,000; three encounters total up to 3,000.

Put the next action in the right place.



01 / Before play

Before the journey

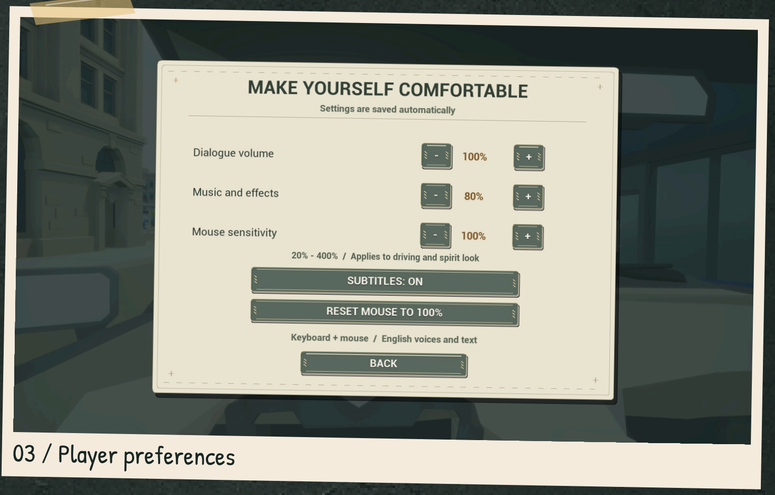
Title, new/continue journey, difficulty selection, field guide and a skippable opening introduce the premise and controls before play.

During investigation

People occupy the left HUD, evidence the right, time the top. Dialogue sits in a lower gradient veil; interaction prompts reserve its full area instead of overlapping it.



02 / During investigation



03 / Player preferences

Player control

Pause, separate dialogue and music/effects levels, and shared mouse sensitivity support comfort. Sensitivity ranges from 20% to 400%, applies immediately and persists.

Mint, warm gold and cream carry over from the game. A steady floating continuation marker replaces flashing; measured text layout protects captions and line spacing.

Make the state change audible.

Audio carries information and emotional continuity: road danger, a suspended heartbeat, a small action, then a return to ordinary space.



A / Context

Road → impact

Different engine characters distinguish sedan, sports car, pickup and truck. QTE tension, tyre/brake cues and a muffled impact tail mark escalation and resolution.

Spirit → action

Swimming sound follows movement speed. Material-specific handling, a completion chord and rescue charge/release cues distinguish progress, success and interruption.



B / Experience



C / Feedback

Echo → aftermath

An intelligible reverberant guide contrasts with grounded character voices. Music ducks under speech; footsteps, hinges and cuffs follow visible action.

World sound pauses with play; menu feedback remains active. Visual white fades preserve the impact tail, and delayed awakening speech prevents the first line being swallowed.

The strongest changes came from friction.

The project developed through repeated creator-led playthroughs, visual review and targeted runtime checks. These are documented revisions, not claims from a large external user study.



Revision 01

The road felt discontinuous

Jumping between accidents weakened the idea of one outing. Restore the original road sequence, keep right-hand traffic and carry the same pickup through the transitions.



Revision 02

The search gave away too much

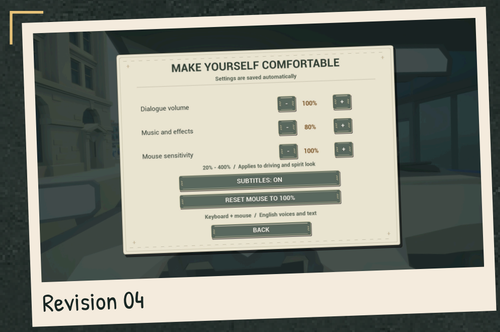
Remote pickups and obvious target labels reduced observation. Tighten reach, use proximity dialogue, delay indirect guidance and make directional help a paid choice.



Revision 03

The scene broke its own logic

Police could not enter a frozen instant. Separate the suspended impact from the grounded aftermath; stage an unobstructed escort and departure before celebration.



Revision 04

Looking around became work

Very slow mouse look fought exploration. Read raw device movement, share sensitivity between views and expose an immediate, persistent adjustment.

Observe the friction → *Change one design rule* → *Replay the consequence*

Verification includes recorded geometry/UI checks and cooked controls at 30 / 60 / 120 FPS caps for the input hotfix. Passing those checks does not establish universal bug freedom.

A case study that can be played.

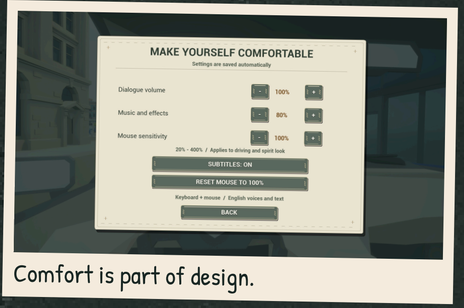
The design goal is not simply to make accidents spectacular. It is to turn a short interruption into a readable choice between safety, care and understanding.



A playable answer to the original design question.



Observe → revise → replay



Comfort is part of design.

What I would test next

Observe first-time players without prompting: time to first discovery, which clue they miss, when they request help, and whether rescue cost feels fair. Use those observations to tune placement and pacing.

Scope and credits

Design and development: Yibo Wang. Project and licensed environment assets; Mixamo animation sources; AI-assisted illustration and synthetic English voices; original procedural and selected CC0 audio.

Play the current build

Free Windows release · 0.19.1
hajimi9914.itch.io/echo-of-crash
The game is the primary evidence; this document explains its design decisions.

>> PLAY THE GAME

Media: current project captures and release screenshots. Clean analytical views hide fog/HUD only for presentation. Earlier revision material is explicitly labelled when used.