LAST LIGHT — DEMO GAME DESIGN DOCUMENT (GDD)

Version: Demo 1.0
Scope: *Strictly the 10–15 minute vertical slice demo*
Studio: Kato.8 Studios

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1. HIGH CONCEPT (DEMO)

1.1 Summary

Last Light (Demo) is a **2D top-down survival shooter** where the player defends a fragile home base from zombie waves while gathering **wood, stone, and metal** to repair the base and **build turrets**. The central mechanic is a **shared ammo pool** between the player and all turrets, forcing the player to make strategic decisions about how to allocate their limited firepower.

1.2 Demo Goal

Deliver a **tight, polished 10–15 minute vertical slice** that demonstrates the core identity of Last Light:

- Fun, responsive combat

- Meaningful resource gathering

- Base defense under pressure

- Tension-driven wave survival

- A clear and readable art style

- Intuitive UI/UX

This demo forms the foundation for future publisher pitches and full-game funding discussions.

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2. DESIGN PILLARS (DEMO)

Pillar 1 — Every Bullet Matters

The shared ammo pool means firing your gun reduces turret output. Every choice carries weight.

Pillar 2 — Tension Over Panic

Waves escalate gradually. The player should always feel "barely surviving" without ever feeling hopeless or overwhelmed.

Pillar 3 — Your Base Tells Your Story

Repairs, scars, and turret placements reflect the player's growing mastery and resilience.

Pillar 4 — Immediate Readability

Every action—from harvesting to shooting—must be instantly understandable with strong visual clarity.

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3. TARGET PLATFORM & AUDIENCE

Platforms (Demo)

- PC (mouse + keyboard)

- Controller support optional, not required for demo

Audience

- Fans of survival shooters

- Players who enjoy extract-and-return loops

- Indie game showcase audiences (Steam festivals, publisher demos)

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4. GAME STRUCTURE — DEMO LOOP

The demo focuses on a single, tight loop:

Gather → Return → Build/Repair → Defend → Survive → Repeat

No long-term progression, no meta systems, no additional maps or characters.

4.1 Session Length

- **Ideal length:** 10–15 minutes

- Survival ends when:

    - Base HP reaches zero, or

    - Player dies

4.2 End Condition

- **Wave Count End:** Player reaches the final demo wave

- **Loss Condition:** Base destroyed or player death

- End screen: "Thank you for playing the Last Light demo!"

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5. PLAYER — DEMO SPEC

5.1 Movement & Controls

- WASD: move

- Mouse: aim

- Left click: fire gun

- Right click: melee attack

- E: interact (harvest, repair, build turret)

- R: reload (optional—depends on tuning)

- ESC: pause menu

5.2 Player Stats (Demo Values TBD)

- HP

- Move speed

- Gun damage

- Melee damage

- Attack speed

- Ammo capacity

5.3 Combat Actions

- **Gun:**

  - Consumes shared ammo

  - High range

  - High damage

- **Melee Weapon (Machete):**

  - No ammo

  - Close-range arc

  - Reliable when low on bullets

5.4 Feedback

- Muzzle flashes

- Hit VFX

- Small camera shake

- Hit-stop for major hits

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6. ENEMIES — DEMO SCOPE

6.1 Main Enemy: Zombie Walker

The demo only features **one enemy type** with tuned variants.

6.2 Behavior

- Wanders until player or base detected

- Moves directly toward target

- Melee attack when in range

- Damages either player or base

6.3 Stats (Tunable per Wave)

- HP

- Move speed

- Damage

- Attack interval

6.4 Wave Scaling

- More zombies

- Slight HP increases

- Slight speed increases

No special zombies, no ranged enemies—strictly simple walkers.

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7. BASE & STRUCTURES — DEMO

7.1 Base Core

- Central structure with HP

- If destroyed → demo ends

- Repairable with resources

7.2 Turrets — Demo Version

One turret type ONLY.
 Goal is to show core defense mechanics cleanly without over-complication.

Behavior:

- Automatically targets nearest zombie

- Consumes ammo from shared ammo pool

- Fire rate and damage tuned for balanced defense

- Cannot be moved once placed

7.3 Valid Turret Placement

- Small, fixed footprint around the base

- Cannot be placed in walk-blocking areas

7.4 Repair System

- Player spends wood/stone/metal to repair base HP

- Hold **E** to repair

- Costs increase based on missing HP

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8. RESOURCES & ECONOMY — DEMO

8.1 Resource Types

1. **Wood**

   - Used to repair base and craft turret base components

   - Found in trees near the base

2. **Stone**

   - Structural material for turret platforms

   - Found in rock nodes

3. **Metal**

   - Highest-value material

   - Required for turret construction

   - Found in scrap piles farther from base

8.2 Gathering Nodes

- Each node has HP or uses

- Player interacts with **E** to gather

- Node disappears after depletion

- Nodes respawn after waves or time

8.3 Crafting Costs (Example placeholder)

Basic Turret:

- 20 Wood

- 15 Stone

- 10 Metal

Base Repair:

- Varies by missing HP (scales upward per repair)

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9. SHARED AMMO SYSTEM — DEMO FEATURE

9.1 Core Concept

All bullets are stored in a single global **ammo pool**.

9.2 Ammo Usage

- Player gun consumes ammo

- Turrets also consume ammo for every shot

- When ammo = 0:

  - Player gun cannot fire

  - Turrets shut down

9.3 Ammo Sources

For the demo:

- Scattered ammo pickups (rare)

- Occasional drops from zombies

- Optional: small crafting recipe (metal → ammo)

9.4 Design Purpose

This mechanic drives strategy:

- Turrets too strong? Player loses personal firepower.

- Player firing constantly? Turrets become underpowered.

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10. WAVE SYSTEM — DEMO

10.1 Structure

- Fixed number of waves (3–5 depending on tuning)

- Each wave:

  - Spawns set number of zombies

  - Slightly increases difficulty

  - Ends when all zombies die

10.2 Intermission

Between waves:

- Player can harvest

- Craft/build turrets

- Repair base

- Restock ammo if found

10.3 Wave UI

- "Wave 2 Incoming" banner

- Optional timer or countdown

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11. LEVEL DESIGN — DEMO MAP

11.1 Layout

- Single open map

- Base at center

- Resource nodes positioned at progressive distances

- Open paths for zombie approach

- Small obstacles to create lanes

11.2 Zones

- **Safe Zone:** directly around the base

- **Resource Band:** predictable nodes (trees/rocks)

- **Danger Zone:** farther scrap piles with higher zombie presence

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12. ART DIRECTION — DEMO

12.1 Style

- Pixel or hand-painted style (final style already selected)

- High readability, moody atmosphere

12.2 Required Assets

- Player (idle, walk, melee, shoot, hurt)

- Zombie walker (idle, walk, attack, hurt, death)

- Resource nodes: tree, rock, scrap

- Turret (idle, firing animation)

- Base (idle, damaged states optional)

- Tileset + props

- VFX: hit flash, muzzle flash, harvest FX

- UI icons

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13. AUDIO — DEMO

13.1 Music

- One ambient loop

- One slightly intensified layer for waves

13.2 Sound Effects

- Gunshot

- Machete swing + hit

- Zombie attack + death

- Resource harvesting

- UI interactions

- Base damage

- Turret firing

13.3 Audio Goals

- Support tension, not chaos

- Punchy combat, clear feedback

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14. UI/UX — DEMO

14.1 HUD Elements

- Player health

- Ammo counter

- Resource counters

- Wave indicator

- Interact prompts

14.2 Menus

- Pause: Resume, Settings, Quit

- End screen

14.3 Onboarding Prompts

- "Move with WASD"

- "Aim with mouse, click to shoot"

- "Press E to harvest resources"

- "Press E near the base to repair"

- "Press E to build turret"

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15. TECHNICAL — DEMO

15.1 Engine

Unity (2D URP)

15.2 Systems Required

- Player controller

- AI state machine

- Wave spawner

- Damage & health system

- Inventory & resources

- Crafting

- Turret behavior

- Shared ammo controller

- Save/load (light, only if desired for demo)

- UI event messaging

15.3 Performance Targets

- 60 FPS on mid-range PCs

- Efficient zombie spawning

- Object pooling for bullets and FX

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16. OUT-OF-SCOPE (DEMO)

These things **will NOT** be included in the demo:

❌ Additional zombie types
❌ Additional turret types
❌ Day/night cycle
❌ Weather
❌ Multiple maps
❌ Story, quests, or cutscenes
❌ Deep crafting tree
❌ Long-term progression
❌ Skill upgrades or leveling
❌ NPCs
❌ Bosses
❌ Inventory equipment
❌ Meta-progression

The demo is a **pure vertical slice**, not a partial full game.

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17. DEMO SUCCESS CRITERIA

17.1 Player Experience Goals

- Controls feel responsive and fun

- Turrets feel powerful but costly

- Resource gathering is quick and easy

- Shared ammo decisions feel meaningful

- Each wave increases tension

- 10–15 minute experience feels complete

17.2 Technical Goals

- Stable build

- Smooth framerate

- No major bugs impacting combat or building

17.3 Presentation Goals

- Clean art direction

- Usable trailer footage

- Strong screenshot moments