

GAME DESIGN DOCUMENT

# Eternal Crusade Online

Oriental Studios · Roblox Jumpstart · Confidential 2025

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Version 1.0 – Pre-Prototype Design Document

This document defines the design intent, systems, and mechanics of Eternal Crusade Online. It is a living document and will be updated as each prototype phase produces signal.

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## 01 / GAME OVERVIEW

# What Is Eternal Crusade Online?

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## Elevator Pitch

Eternal Crusade Online is a persistent, open-world faction war game on Roblox in which two teams battle across a shared map over the course of several days or weeks. Players join an active campaign at any time, strengthen their faction through PvE and PvP, build defenses, and push toward the enemy Nexus.

## The War Never Stops

Unlike a MOBA or arena game, the campaign does not reset after a match. The war continues over time — new players join, friends reinforce either side, and the battlefield evolves based on player actions 24 hours a day. When a player logs off, AI units continue defending. When they return, the war has moved.

## Platform & Genre

- ◆ Platform: Roblox (Lua / Roblox Studio)
- ◆ Genre: Persistent Faction War · Action RPG · Tower Defense elements
- ◆ Campaign Length: 7–21 days per campaign
- ◆ Target Age: 13–24
- ◆ Server Architecture: Linked sector servers (30–60 players each)
- ◆ Domains: eternalcrusadeonline.com · eternalcrusade.online

## 02 / DESIGN PILLARS

# Core Design Pillars

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## Every Session Matters

A player's actions must visibly affect the war state within a single session. No session should feel like "setup." Territory moved, enemies killed, defenses built — all surfaced in the Session Resolution Screen.

## The War Lives Without You

The world evolves 24/7. AI units defend sectors, territory can shift while you sleep, and push notifications fire for critical war events. Returning feels like checking a living world.

## Social Is the Game

Faction identity, squad play, cross-faction Rivals, and real-time reinforcement invites are first-class features. The strongest virality mechanism is pulling a friend into an active war mid-session.

## Casual Entry, Deep Mastery

First combat within 60 seconds of joining. Onboarding via doing, not reading. The mastery ceiling — Warlord tactics, advanced builds, Rivals meta — takes weeks to reach.

## No Pay-to-Win, Ever

Monetization is cosmetic identity only. A free player and a paying player are equal on the battlefield. This is non-negotiable and enforced at every design review.

## 03 / SYSTEM MAP

# Gameplay Systems

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## Primary Systems

- ◆ Combat System — melee and ranged, ability slots, hitbox-based damage
- ◆ PvE System — AI enemy waves, captains, siege units; resource drops
- ◆ Territory Control — sector capture, fort nodes, Nexus push condition
- ◆ Building System — turrets, walls, forward bases (cosmetically customizable)
- ◆ Progression — session XP → gear tiers + ability slots; campaign rank
- ◆ Squad System — 4–6 player groups with Warlord role and bonuses
- ◆ Rivals System — cross-faction friend tracking with persistent stats
- ◆ Comeback Mechanics — asymmetric buffs for losing faction
- ◆ Session Resolution — after-action report on every log-off
- ◆ Notification System — war state push notifications for re-engagement

## Supporting Systems

- ◆ AI Fill System — faction soldiers fill server population gaps
- ◆ Campaign Management — start/end, Hall of Fame, reset sequence
- ◆ Monetization Layer — cosmetic store, battle pass, live-ops drops
- ◆ Analytics Layer — full event logging from Prototype phase

## 04 / CORE LOOP

# The Three Cycles

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## Session Cycle (30–90 minutes)

The session cycle is the core gameplay loop — what a player does in one play session. It must deliver satisfaction and visible impact within the session window.

- ◆ Enter World → join active campaign, auto-assigned to faction by population balance
- ◆ Orientation → faction map, frontline status, squad shown immediately on spawn
- ◆ PvE Grind → defeat AI enemies in contested zones for resources and XP
- ◆ Power Up → use resources to unlock gear tier, ability slots
- ◆ PvP / Push → fight enemy players, contest fort nodes, push toward Nexus
- ◆ Build → place turrets and walls in controlled sectors
- ◆ Log Off → Session Resolution Screen shows personal war impact

## Faction Cycle (hours to days)

- ◆ Territory shifts based on aggregate player + AI activity every 60s
- ◆ Forts flip when enough capture pressure is applied — shown live on map
- ◆ Return Hook: notification fires when your sector is attacked or milestone reached
- ◆ Session Resolution shows territory delta since last login

## Campaign Cycle (7–21 days)

- ◆ Win condition: destroy the enemy Nexus
- ◆ Nexus only vulnerable after sufficient adjacent forts captured
- ◆ Campaign ends on Nexus destruction or time limit (draw = reduced rewards)
- ◆ Hall of Fame enshrines top contributors in-game permanently
- ◆ Reset: map resets, factions re-balanced, new campaign begins after 24h intermission

## 05 / FACTION DESIGN

# Faction Identity

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## Two Launch Factions

Two opposing factions with distinct visual identity, lore, and minor asymmetry. Asymmetry is cosmetic and feel-based — not a balance variable.

### The Ironveil Order

- ◆ Aesthetic: Heavy plate, dark iron, disciplined military order
- ◆ Feel: Defensive, structured, fortress-builders
- ◆ Palette: Charcoal, iron grey, crimson accents
- ◆ Lore: An ancient order defending the last bastion of civilization

### The Ashborn Tide

- ◆ Aesthetic: Scarred leather, fire motifs, tribal war-band energy
- ◆ Feel: Aggressive, mobile, fast-push specialists
- ◆ Palette: Burnt orange, ash white, ember red
- ◆ Lore: Dispossessed warriors reclaiming what was taken from them

## Faction Assignment

New players are auto-assigned by population balance. Locked to that faction for the campaign duration. Can choose faction for the next campaign. Friends on opposing factions power the Rivals system — this is a feature, not a problem.

## 06 / MAP & TERRITORY

# World Design

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## Map Structure

The map is divided into contested sectors arranged between the two Nexuses. Central sectors are the primary battlefield. Outer sectors hold resource nodes and PvE zones.

- ◆ Prototype: 1 test environment, 1 objective node
- ◆ MVP: 3-sector map (Left Flank / Center / Right Flank)
- ◆ Beta: 5-sector map with expanded flanks and rear resource zones
- ◆ Launch: 7+ sectors with distinct biome regions

## Territory Control

- ◆ Each sector has Fort Nodes — capturable control points
- ◆ Sector "controlled" when faction holds majority of its Fort Nodes
- ◆ Nexus vulnerable only when all adjacent sectors are attacker-controlled
- ◆ Fort Nodes respawn AI defenders when uncontested — never sit empty
- ◆ Players can place structures near Fort Nodes they control

## Resource Zones

Resource zones contain PvE enemies that drop Ore, Essence, and Shard — used for gear, abilities, and building. Respawn on a timer. Contested resource zones create natural PvP flashpoints.

## 07 / PvE SYSTEMS

# Enemy Design

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## Enemy Tiers

- ◆ Tier 1 — Grunts: Low HP, predictable AI. Solo-able from session start. Drop basic Ore.
- ◆ Tier 2 — Veterans: Moderate HP, charge/shield/burst abilities. Recommended 2+ players.
- ◆ Tier 3 — Captains: Named elites with patrol routes and area abilities. Drop rare resources.
- ◆ Tier 4 — Siege Units: Catapults, battering rams targeting structures. Require coordination.

## AI Faction Soldiers

Both factions always have AI soldiers active in every sector. These are faction-aligned units that patrol, defend Fort Nodes, and engage enemies. They scale by population imbalance (see §15). They ensure the war never feels dead on low-population servers.

08 / PvP & COMBAT

# Player vs Player

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## Combat Feel Target

Stylized, readable, high-energy. Hits feel impactful. Deaths are fast and clear. Respawn: 10–15 seconds. No permanent gear loss. Death = respawn at faction spawn point.

## Combat System

- ◆ 3 ability slots per loadout (unlocked via session XP)
- ◆ Basic attack: held left-click (auto-swing melee) or aim-to-fire ranged
- ◆ Dodge roll: standard defensive, stamina-gated
- ◆ Kill assists tracked for Session Resolution accuracy
- ◆ No friendly fire — factions are fixed per campaign

## Rivals System

Tracks cross-faction friendships as persistent named Rivalries. If opposing-faction friends interact (kill, assist, tag) repeatedly, they are flagged as Rivals. Stats tracked campaign-to-campaign. Dedicated cross-faction Rivals chat channel. Strongest social retention mechanic in the game.

## 09 / BUILDING &amp; DEFENSE

# Player-Built Structures

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## Structure Types

- ◆ Basic Turret — auto-attacks enemies in 30-stud range. Cost: Ore x10
- ◆ Sniper Turret — long range, slow fire, high damage. Cost: Ore x20 + Essence x5
- ◆ Wall Section — blocks movement and line of sight. Cost: Ore x5
- ◆ Gate — passable by friendly players only. Cost: Ore x8 + Shard x2
- ◆ Healer Beacon — regenerates nearby friendly HP. Cost: Essence x15
- ◆ Forward Base — temporary faction spawn point. Cost: Ore x30 + Shard x10

## Building Rules

- ◆ Structures placed only in sectors controlled by builder's faction
- ◆ Structures persist across sessions — remain when player logs off
- ◆ Structures decay when sector changes faction control
- ◆ Structure cosmetics purchasable — same stats, different skin
- ◆ Per-sector limits: 12 turrets, 30 wall segments, 1 Forward Base

**10 / PROGRESSION & POWER**

# Character Progression

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## Session Progression (Resets on Log-Off)

Within a session, players earn XP that unlocks gear tiers and ability slots. Resets on log-off. Keeps new and returning players on similar footing each session.

- ◆ Tier 1 Gear: Default loadout on spawn
- ◆ Tier 2 Gear: 100 XP (~15–20 min play)
- ◆ Tier 3 Gear: 300 XP (~40–60 min play)
- ◆ Ability Slot 1: 50 XP
- ◆ Ability Slot 2: 200 XP
- ◆ Ability Slot 3: 500 XP (veteran session)

## Campaign Progression (Persists)

- ◆ Campaign Rank: visible title earned through total contribution score
- ◆ Contribution Score: territory captured + enemies killed + defenses built + squad actions
- ◆ Hall of Fame eligibility: top 10 per category per campaign
- ◆ Campaign cosmetic rewards unlocked at rank thresholds (free track)

## 11 / SOCIAL SYSTEMS

# Social & Community

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## Squad System

Squads are 4–6 player groups within the same faction. Warlord (leader) can place Forward Bases and issue rally commands. Squad bonuses activate when 3+ members share a sector.

## Mid-Campaign Reinforcement

A player can send Reinforcement Requests to up to 5 friends — inside or outside the game. Includes live war state context. Friends join immediately with no lobby wait.

## Cross-Faction Friends

Friends on opposing factions can see each other's Contribution Rank, receive Rival activity notifications, and share campaign results with a win/loss record across campaigns.

## Discord Integration

- ◆ Faction-specific War Room channels per campaign
- ◆ Bot posts territory updates every 4 hours
- ◆ Developer War Council streams during active campaigns
- ◆ Campaign Hall of Fame announced in Discord at campaign end

## 12 / ONBOARDING

# New Player Experience — First 90 Seconds

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## Target Flow

- ◆ 0:00 — Player joins. Faction assigned. No menu. War begins.
- ◆ 0:05 — 3-second faction banner cinematic. Immediately skippable.
- ◆ 0:08 — Spawn next to a Warlord (human or AI). "Follow me."
- ◆ 0:20 — First PvE enemy visible. "Attack it." First combat within 30 seconds.
- ◆ 0:35 — First kill. XP gained. Gear tier tooltip shown (dismissible).
- ◆ 0:50 — Warlord leads toward contested zone. First player interaction visible.
- ◆ 1:10 — Player has 2+ kills, earned resources, sees the frontline.
- ◆ 1:30 — Onboarding complete. Session Resolution includes tutorial bonus.

## Warlord Onboarding

New players always paired with an active Warlord. If no human available, AI Warlord fills the role with simple waypoint navigation. Human Warlords who onboard 3+ players per session receive a Mentor bonus to their Contribution Score.

## 13 / SESSION RESOLUTION

# The After-Action Report

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## Purpose

Shown on log-off. Makes individual contribution legible in a long campaign. Without it, players feel invisible in the war.

## Screen Content

- ◆ Territory Delta: sectors your faction gained/lost since you logged in
- ◆ Personal Score: enemies killed, assists, resources gathered, structures built
- ◆ Faction Rank Change: where your faction stands in the campaign
- ◆ Campaign Progress: % toward Nexus vulnerability threshold
- ◆ Your Contribution Rank: where you sit among all faction players today
- ◆ War State Prediction: what the map will look like when you return
- ◆ Return Prompt: "The war doesn't stop. [Faction] needs you back in [X hours]."

## 14 / CAMPAIGN STRUCTURE

# Campaign Arc Design

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## Campaign as a Season

Each campaign is a narrative arc: Opening, Escalation, Climax, Resolution. Live-ops events timed to each act. Feels like a story with a beginning, middle, and end.

## Campaign Acts

- ◆ Opening (Days 1–3): Factions establish frontlines. High PvE focus. Resource zones contested.
- ◆ Escalation (Days 4–10): Territory control stabilizes. Pitched PvP at sector boundaries.
- ◆ Climax (Days 11–17): Nexus becomes vulnerable. All-hands siege events. Highest tension.
- ◆ Resolution (Days 18–21): Final push or countdown. Hall of Fame vote opens.

## End-of-Campaign Events

- ◆ Nexus destruction: cinematic, server-wide notification, faction celebration
- ◆ Hall of Fame: top 10 per category enshrined on in-game monument
- ◆ Final rewards distributed: cosmetics, campaign titles, pass completion
- ◆ Reset: 24-hour intermission, then new campaign begins

## 15 / COMEBACK MECHANICS

# Anti-Snowball Design

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## The Problem

Persistent games snowball. Dominant faction gains ground, losing side stops logging in. If unchecked, both sides eventually quit — the winners have no one to fight.

## The Solution: Asymmetric Escalation

- ◆ Balance Score calculated every 4 hours. If one faction controls >60% of territory: escalation begins.
- ◆ AI Reinforcement: losing faction gets 25% more AI soldiers per sector (stacks to 75%).
- ◆ Resource Surge: losing faction nodes yield 30% more Ore for 4 hours.
- ◆ Emergency Siege Tools: losing faction unlocks 2 unique siege abilities in contested sectors.
- ◆ Comeback Notification: losing faction players receive push ping to return.
- ◆ Resilience Buffer: losing faction sectors require 40% more capture progress to flip.

## Balance Philosophy

Goal is not to guarantee a comeback — it is to guarantee the game stays interesting. A comeback should feel earned, not handed. These mechanics make it possible, not inevitable.

16 / MONETIZATION

# Revenue Design

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## Core Principle

All monetization is cosmetic identity. No item, currency, or pass provides a gameplay advantage. Non-negotiable. Enforced at every design review.

## Phase 1 — Cosmetics Store

- ◆ Character armor skins — faction-themed and cross-faction variants
- ◆ Weapon visual effects — particle trails, hit effects, idle animations
- ◆ Emotes and victory animations
- ◆ Structure cosmetics — custom turret skins, wall variants
- ◆ Faction banners and emblems displayed on captured Fort Nodes
- ◆ Title and name flair visible in-world and in Session Resolution

## Phase 2 — Campaign Battle Pass

- ◆ Duration: fixed to campaign length (7, 14, or 21 days)
- ◆ Free Track: functional rewards available to all players
- ◆ Premium Track: exclusive cosmetics, lore items, campaign title
- ◆ No content gating — premium = finish faster, not access differently
- ◆ Faction-specific premium variant per campaign
- ◆ Robux price target: 200–400 Robux (~\$2.50–\$5.00 USD)

## Phase 3 — Live-Ops Drops

- ◆ Limited event cosmetics: available during campaign climax only
- ◆ Hall of Fame recognition items: awarded, not purchasable
- ◆ Community milestone unlocks: faction-wide goals unlock cosmetics for all
- ◆ Seasonal prestige cosmetics: available once, never returns

17 / PLATFORM CONSTRAINTS

# Roblox Technical Design

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## Server Limits

Roblox servers cap at ~700 concurrent but practical performance limits for physics-heavy games are 50–100 players. ECO targets 30–60 players per server instance.

## Cross-Server Persistence

Territory control persists across multiple server instances via `MessagingService` and `DataStore`. Territory state syncs every 60 seconds. Player contribution scores persist via `DataStore`.

- ◆ `MessagingService`: push notifications, war state events, cross-server faction alerts
- ◆ `DataStore`: territory state, contribution scores, structure positions
- ◆ `MemoryStoreService`: leaderboard data, real-time faction balance score
- ◆ Rate limit: `DataStore` writes batched — no per-player-per-second writes

## Performance Budget

- ◆ Combat: hitbox-based (no per-frame raycasting), ability effects capped at 10 simultaneous particles
- ◆ Structures: streamed in/out by proximity — beyond 200 studs = not rendered
- ◆ AI Units: simple waypoint AI, max 20 active AI per sector per server
- ◆ Map: streaming enabled, 5-second chunk load radius

## 18 / SUCCESS METRICS

# Phase Gates & Key Metrics

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## Prototype Gate (Week 8)

- ◆ Average session length > 12 minutes in internal testing (n ≥ 20 sessions)
- ◆ Time-to-first-kill < 60 seconds for new players
- ◆ Combat feel rating ≥ 4/5 from internal testers

## MVP Gate (Week 20)

- ◆ D1 retention > 35% (closed alpha)
- ◆ D7 retention > 20% (closed alpha)
- ◆ Average return interval < 24 hours after notification ping
- ◆ Player-reported "I care about the war state" ≥ 70% in exit survey

## Beta Gate (Week 32)

- ◆ K-factor invite conversion > 0.4
- ◆ Average group size > 2.5 players
- ◆ Faction balance ratio < 45/55 without comeback mechanics triggering
- ◆ Time in PvP > 33% of total session time
- ◆ New player onboarding: < 90 seconds to first combat action

## Launch Targets

- ◆ Campaign completion rate > 60% (Day 1 players still active on final day)
- ◆ Battle pass conversion rate > 8% of active campaign players
- ◆ Player NPS > 40
- ◆ Campaign-to-campaign return rate > 70%