Game Design Document (GDD)

Working Title: Guilty as Arrr!
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Engine: Unity
Networking: [Mirror](#)

1) Main Concept

A pirate-themed, multiplayer party game where each round is a chaotic shipboard courtroom. Players accuse, defend, and bribe; **mutiny** can overthrow the Captain (Judge); **hazards** (storm, fire, cat, parrot) disrupt trials; **punishments** send pirates overboard; **any eliminated player becomes a Ghost Saboteur** (no voting) who fuels chaos through indirect environmental shenanigans.

1-sentence pitch:
Ace Attorney meets Among Us on a rocking pirate ship where even the judge can be shot out of a cannon.

2) Player Fantasy & Pillars

- **No one is safe:** defendants, witnesses, prosecutors, even the captain can be ejected.

- **Chat of chaos:** objections, evidence, scummy tactics, bribery, and throwables.

- **Pirate flavor:** silly low-poly look, parrot repeats voice lines, goofy SFX and music.

- **Quick laughs:** short rounds, high replayability.

3) Target Audience & Session Size

- **Players:** 4–10 (sweet spot 5–8)

- **Session length:** 15–30 minutes

- **Round length:** 3–6 minutes (scales with player count)

4) Game Modes (single core ruleset that scales)

We ship **one mode** for scope safety, with automatic tweaks by player count.
 Elimination Policy (global): *Any punished player becomes a **Ghost Saboteur**—no voting, no direct comms to living players; ghosts only influence the environment.*

4.1 Small Lobby Rules (4 players) — auto-enabled

- **Two defendants** per round (keeps tension).

- **Ghost strength: HIGH** (keeps eliminated players engaged):

    - Each ghost has **2 abilities**, **short cooldowns**.

    - **Global cap: up to 3 ghost actions per round** (shared across all ghosts).

- **Faster pacing:** shorter timers, hazards ramp quickly.
- **Break Phase** allows roaming/sabotage/kills between court segments.
- **No whispers** to living players (ghost can hear each other).

4.2 Full Lobby Rules (5–10 players)

- **One or two defendants** based on count.

- **Mutiny** can replace the Captain.

- **Break Phase** allows roaming/sabotage/kills between court segments.

- **Ghost strength: LIGHT**:

    - Each ghost has **1 ability**, **longer cooldowns**.

    - **Global cap: 2 ghost actions per round** (shared).

    - **No whispers** to living players (ghosts can hear each other).

5) Roles

- **Captain (Judge):** moderates, calls order, can sway timers, may abuse power → risk of mutiny.

- **Defendant(s):** accused this round; must defend with arguments/evidence.

- **Prosecutor/Witness (lightweight):** any non-defendant can present evidence or testimony.

- **Crew/Jury:** all non-defendants vote **Guilty / Not Guilty**; can call **Mutiny**.

- **Ghost Saboteur (on death/punishment):** interacts with the **environment only** to create doubt/chaos; **no voting**, **no direct comms** to living players.

6) Core Loop (per round)

Case Setup

- Reveal **Case Card** (e.g., "Who poisoned the Captain's rum?").

- Select **1–2 defendants** (random, prior events, or card effects).

Court Phase (Debate & Theatrics)

- Players argue, use **Objection/Situation/Evidence** cards, throw props.

- Captain can **Bang Gavel** (silence 5s).

- Hazards may trigger (storm shake, cat, parrot, lightning causes fire, etc).

(Optional) Break Phase (30–60s)

- Free roam: hide/destroy evidence, steal coins, set tiny fires, *(design option)* attempt a kill.

- Ghosts may perform limited sabotage per mode rules.

Voting Phase

- Secret ballot UI: **Guilty / Not Guilty / Abstain**.

- **Mutiny Vote** can be called (see §7.2).

- Highest-voted defendant receives **Punishment**.

Punishment → Ghost Conversion

- **Plank, Cannon** (MVP) → punished player becomes **Ghost Saboteur**.

Resolution & Progress

- Update **Treasure/Morale/Chaos** meters (see §7.4).

- Next case begins.

7) Systems

7.1 Evidence & Card System (lightweight)

- **Card Types (MVP):**

  - **Objection!** (interrupt; skip someone's talk turn)

  - **Evidence** (apply suspicion to target; stackable)

  - **Situation** (brief rule change: "No talking 5s", "Reverse turn order")

  - **Bribe** (spend coins to add +1/−1 sway to meter or a player's suspicion)

- **Acquisition:** 1–2 random cards at round start; +1 on good participation

- **Play Limits:** Max **2 cards per player per round**.

7.2 Mutiny

- **Trigger:** Any **two players** spend **Mutiny Tokens** (each gets 1 per match).

- **Vote:** Secret simple majority of **living crew**.

- **Success:** Captain receives **punishment-lite** (humiliation) and role passes to **First Mate** (next in list).

- **Fail Cost:** Instigators lose next card draw (or 1 coin).

- **Cooldown:** 1 round between mutinies.

7.3 Ghost Toolkit (no voting, no direct comms to living)

Design intent: keep eliminated players engaged **without revealing information** or solving the case.

Ability Pool (select per match; mode caps apply):

- **Lantern Nudge** — small chance to ignite/blacken one evidence paper; can be extinguished within 3s or 1 evidence is lost.

- **Storm Shove** — brief ship wobble; momentary UI/voice interruption (~0.5–1s).

- **Parrot Mock** *(stretch)* — parrot repeats the last few words someone said (cosmetic).

- **Cat Herd** *(stretch)* — cat crosses the table; pushes one card/paper off the table.

- **Cold Spot** *(stretch)* — dims one lantern; targeted player appears subtly faded for 5s (cosmetic).

Mode Scaling (hard rules):

- **Small lobby (4):** each ghost **2 abilities**, **short cooldown**; **global cap 3** ghost actions/round (shared).

  - *(Optional, off by default)* **Templated cryptic whisper**: at most **1 per ghost per round** to a random living player (ambiguous system lines—no names/roles).

- **Full lobby (5–10):** each ghost **1 ability**, **long cooldown**; **global cap 1** ghost action/round (shared).

  - **No whispers** to living players.

Anti-grief / Anti-leak rails:

- Server enforces global caps and per-ghost cooldowns; cannot target the same living player twice in a row.

- If whispers are enabled (small lobbies), they are **pre-written ambiguous templates** only (no free text, no names/roles).

7.4 Progress & Win Conditions

- **Chaos Meter** (shared): + on wrong convictions, fire spread, mutiny success, kills.

- **Treasure/Morale Meter** (shared): + on correct convictions, extinguishing fires, cooperation events.

- **Endings (choose 1–2 for MVP):**

    - **Reach Shore:** survive **N** rounds without maxing Chaos (crew victory).

    - **Ship Sinks:** Chaos maxes (saboteur/chaos victory).

    - *(stretch)* **Last Pirate Standing** variant for large lobbies.

7.5 Hazards (environmental)

- **Storm Waves:** camera/ship sway; chance to drop/lose a random card/evidence.

- **Lightning/Fire:** sets a prop on fire; players can interact to extinguish (simple button).

- **Ship Cat:** random walk; knocks a card/evidence to floor (must be re-picked).

- **Parrot:** repeats snippets during a defense, potentially embarrassing timing.

7.6 Punishments

- **Plank Walk** (MVP): short animation → **ghost**.

- **Cannon Shot** (MVP): goofy launch → **ghost**.

- **Leave on island**

7.7 Throwables

- Cosmetic interruptions (coin, bread, mug). Tiny screen shake on hit; **no damage** (MVP).

- *(stretch)* Crowd meter sway ±1 on synchronized throws.

8) Content

8.1 Case Pack (MVP: 6–8 cases)

- Poisoned Rum

- Stolen Treasure Chest

- Shady Deal with Navy

- Sabotaged Powder Keg

- Sick Crew Outbreak

- Captain's Hat Prank
  (stretch: more with twists/sub-objectives)

Each case defines: short flavor text, default suspects logic (random or weighted), 1–2 unique **case cards**.

8.2 Evidence Examples

- **Suspicious Bottle** (attach to target: +2 suspicion)

- **Eyewitness: "Saw You Near the Hold"** (+1 suspect weight)

- **Clean Hands** (defense: remove 1 negative)

- **Forged Map** (fake: applies to anyone; 10% chance to be exposed)

9) UX / UI Flows

9.1 Lobby → Match

- Host selects **player cap**, enables **Break Phase** (on/off), selects **case pack**.

- Simple **ready** system; start when **≥4** players.

9.2 Round HUD

- **Top-center:** Case Title + short text.

- **Left:** Turn Order / **Talk Timer** (e.g., 10s per speaker).

- **Right: Hand (Cards)** with quick hotkeys.

- **Bottom: Chaos / Morale** meters (minimal bars).

- **Vote Panel** pops at phase end (radio buttons + confirm).

- **Mutiny Button** (greyed unless you have a token and a second caller).

9.3 Ghost HUD

- **Ghost Bar** (spectator-only): shows **global ghost actions remaining** this round and personal cooldown.

- **Whisper Panel** *(only if enabled in small lobbies)*: pick from **templated ambiguous lines** (no names/roles).

9.4 Accessibility

- Subtitles on by default; text size slider.

- Color-blind friendly meter colors.

- Optional "auto-advance talk turns" for shy players.

10) Art Direction

- **Style:** 3D low-poly, silly proportions, readable silhouettes.

- **Scene:** ship cargo-hold courtroom; warm lanterns + cool moonlight spill.

- **Props:** coins, mugs, bread, evidence papers, gavel.

- **Characters:** 4–8 pirate variants (hat/eyepatch/beard swaps).

- **Animation:** idle, talk loop, flinch (throwables), plank walk, cannon shot.

- **FX gags:** splash, smoke puff, lantern ember.
  (Use low-poly packs; customize with simple materials.)

11) Audio Direction

- **VO/Chat:** push-to-talk if time; otherwise text + emotes.

- **SFX:** gavel thud, creak, wave slap, cat meow, parrot squawk, coin clinks, whoosh.

- **Music:** light shanty loop; tempo up during voting/mutiny.

- **Mix:** sidechain duck SFX slightly under VO.

12) Technical Design (Unity)

12.1 Project Setup

- **Version control:** Git (main/dev/feature branches).

- **Folders:** `Art/`, `Audio/`, `Materials/`, `Prefabs/`, `Scenes/`, `Scripts/`, `UI/`, `Net/`.

- **Scenes:** `Boot` (singletons), `Lobby`, `Courtroom` (main).

12.2 Networking

- **Mirror** recommended for fast prototyping.

- Authoritative host.

- SyncVars for meters, role state, timers.

- RPCs for card plays, votes, mutiny calls, hazard triggers.

12.3 Key Prefabs & Scripts (MVP)

- **GameManager** (round state machine; ScriptableObject timers)

- **RoleManager** (assign Captain/Defendants/Jury)

- **CaseManager** (select case; seed suspects; load case text)

- **CardSystem** (draw/hand/play; limits)

- **VoteSystem** (UI; tally; anonymous; server resolves ties)

- **MutinySystem** (tokens; call; secret vote; resolve; cooldown)

- **HazardController** (storm tick; fire spawn; cat/parrot path)

- **GhostController** (abilities with mode-based caps/cooldowns)

- **PunishmentController** (play animation + convert to ghost)

- **UIController** (talk timer, meters, panels)

- **ThrowableController** (cosmetic hits; local feedback)

State Machine (suggested): `Setup → Court → (Break) → Voting → Punish → Resolve → Setup`

12.4 Data Structures (ScriptableObjects)

- `CaseSO { id, title, flavor, suspectMode, caseCards[] }`

- `CardSO { id, type(Objection/Evidence/Situation/Bribe), targetRules, effectParams }`

- `HazardSO { id, triggerType(timer/ghost), effectParams }`

12.5 Performance & Net Tips

- Keep messages small (avoid VO over net if possible).

- Avoid physics spam; prefer animations + simple triggers.

- Deterministic RNG seeded per round for harmless visuals.

13) Tuning & Balancing (starting values)

- **Talk turn:** 10s each; 2 cycles max.

- **Round target length:** 4 min (small) / 6 min (full).

- **Card hand:** start 1–2; max 2; play cap 2 per round.

- **Mutiny:** needs 2 callers + simple majority; 1-round cooldown.

- **Ghost scaling:**

  - **Small lobby (4):** ghosts have **2 abilities**; **~20s cooldown**; **global cap 3** actions/round; **whispers OFF by default** (if enabled: max 1 per ghost/round,

templated).

- ○ **Full lobby (5–10):** ghosts have **1 ability**; **~35s cooldown**; **global cap 1** action/round; **no whispers**.

- **Hazards:** 1 major event per round (Fire or Cat); storm sway every ~25s (~1s).

14) MVP vs. Stretch

MVP (must ship)

- Courtroom scene, 1 camera.

- Core loop (Setup → Court → Voting → Punish → Resolve).

- Roles: Captain, Defendants, Jury.

- Evidence/Objection/Situation/Bribe (small set).

- Voting UI (secret), basic Mutiny.

- **2 punishments** (Plank, Cannon).

- **1–2 hazards** (Storm + Fire or Cat).

- **Ghosts** with **environmental sabotage only** (pick 2–3 abilities total; no voting/comm to living).

- **6–8 case cards.**

Stretch (only if time remains)

- Break Phase free-roam & stealth kill.

- Parrot mimic, more cat behaviors.

- More punishments & crowd reactions.

- Proximity voice chat.

- Cosmetic unlocks (hats, eyepatches).

- Additional case packs.

15) 8-Week Milestones (2 months)

Week 1 – Foundations

- Lock engine + net stack; repo + folders.

- Greybox courtroom scene.

- State machine skeleton + server/host loop.

Week 2 – Roles & Vote

- Role assignment, talk timer.

- Secret ballot voting (server resolve).

- Simple end-of-round → next round.

Week 3 – Cards & Punishments

- Card draw/hand/play (2–3 cards).

- Implement Plank & Cannon + ghost conversion.

Week 4 – Ghost & Hazard MVP

- Ghost abilities (2 total for MVP).

- Storm sway + 1 more hazard (Fire **or** Cat).

- 6 case cards content pass.

Week 5 – Mutiny & Polish

- Mutiny tokens, vote, role transfer.

- UI polish (meters, prompts), SFX pass.

Week 6 – Balance & Content

- Add 2 more cases (total 8).

- Tune timers, card rates, hazard frequency.

- Playtests (small & full lobbies).

Week 7 – Stretch or Stability

- If stable: add Parrot or Break Phase prototype.

- If not: bugfix/QOL, net resilience.

Week 8 – Ship

- Final balance + perf pass.

- Record demo video + instructions.

- Build & submit (Itch/Steam demo if needed).

16) QA Test Plan (light)

- **Functional:** round transitions; vote edge cases (ties, AFK); mutiny handoff.

- **Sync:** meters; card effects; punishment timing; ghost ability limits/caps.

- **Exploit checks:** card spam; mutiny spam; grief with throwables (cap them).

- **Balance:** time-to-decision; wrong-conviction frequency; chaos too high/low.

- **UX:** can a new player understand what to do in 60s? (add tips).

17) Risks & Mitigations

- **Networking bugs** → use Mirror; keep packets simple; authoritative host; early playtests.

- **Scope creep** → stick to MVP; park stretch in a separate list.

- **Voice chat complexity** → defer; use text/emotes; add VO only if time remains.

- **Player count variance** → auto small-lobby tweaks (two defendants, faster timers, stronger ghosts).

18) Team Workflow

- Weekly standups (15 min).

- Trello/Jira with MVP vs. Stretch swimlanes.

- **Code owner** (net/state machine); **content owner** (cases/cards); **art owner** (scene/props); **QA owner** (playtests & checklists).

19) Glossary (quick refs)

- **Case Card:** scenario setup per round.

- **Defendant:** accused player(s).

- **Mutiny Token:** resource to initiate Captain vote.

- **Ghost:** eliminated player with **environmental** powers; **no voting/comm** to living.

- **Hazard:** environmental chaos (storm/fire/cat/parrot).

- **Punishment:** plank/cannon/etc. → converts to ghost.

Appendices

A) Starter Case Cards (snippets)

- *Poisoned Rum* — Someone tainted the Captain's stash.

- *Navy in the Hold* — Someone sent signals to the Crown.

- *Treasure Shortfall* — Chest lighter than yesterday.

- *Powder Wet* — Someone flooded the magazine.

- *Sick Berths* — Illness spreading after port visit.

- *Missing Map* — The route to Tortuga vanished.

B) Starter Card Set (8–10 total)

- Objection! ×2

- Eyewitness Testimony ×2

- Suspicious Bottle ×1

- Clean Hands ×1

- Situation: "Silence 5s" ×1

- Bribe (+1 sway) ×2

- (optional) Fake Map (10% expose) ×1

C) Ghost Abilities (MVP choose 2–3 total)

- Lantern Nudge (burn/blacken 1 evidence on table if not extinguished)

- Storm Shove (1s wobble)

- *(stretch)* Parrot Mock, Cat Herd, Cold Spot