

Abstract

A cheat-prevention system for competitive games comprises a transparent Faraday-cage enclosure, a sealed tamper-evident game terminal, and a layered sensor suite including cameras, light-curtain, acoustic array, RF analyzer, and biometric presence detector. Sensor outputs are hash-chained in real time by a cryptographic module and published to a distributed ledger, creating an immutable record of enclosure integrity. Match lifecycle control logic automatically starts, pauses, voids, or completes play based on sensor state and ledger verification. A wager-escrow module releases or voids funds according to whether the telemetry chain remains unbroken and no tamper events occur. The system thereby integrates physical anti-cheat shielding, continuous player authentication, blockchain-backed auditability, and conditional escrow enforcement, enabling provably fair and regulator-auditable wagering in chess and other skill-based competitions.