

Battle 21 Whitepaper (v1.0 – 15 May 2025)

Abstract

Battle 21 is a player-vs-player card game using blackjack scoring with no house edge. The dealer button moves each hand, players wager one unit every round, and the house earns only a posted rake—typically 5%, capped at one unit—taken from dealer wins.

Where Classic 21 Falls Short

Casinos have gradually tightened blackjack rules, making the game harder and less rewarding for players:

- Blackjack payouts dropped from 3:2 to 6:5.
- Doubling and splitting rules got tighter.
- Continuous shuffling machines made card-counting impossible.
- Skilled players face betting limits, extra surveillance, or outright bans.

Online casinos copy these same restrictions. Poker solved the fairness problem decades ago by openly posting rake percentages. But poker is complicated, and many players still prefer blackjack's simple goal of hitting 21 without going over.

Battle 21 answers that gap.

Core Mechanics

1. Fixed One-Unit Bets

Every player bets one unit each hand. No bet spreading allowed. Typically, the most at risk per hand is two units, after doubling or splitting.

2. Rotating Dealer

The dealer button moves clockwise every hand. The dealer places no bet and plays automatically: hits on 16 or lower, stands on 17 or higher. Each player is dealer once per round.

3. Posted Rake

The house earns money from a clearly posted rake (usually 5%, capped at one unit) only when the dealer wins. If the dealer doesn't win, no rake is collected.

How a Hand Works

1. Bet

Everyone posts one unit.

2. Deal

Players get two cards face-up. Dealer gets one up-card and one hole card.

3. Act (clockwise)

Players choose one or more actions:

- **Hit** – take another card.
- **Stand** – keep your total; hand ends.
- **Fold** – quit the hand, lose half your bet; hand ends.
- **Double** – add one unit, draw one card; hand ends.
- **Split** – pairs only; add one unit, create two hands. One split per hand—no resplits, no doubling after splitting.

Any hand over 21 immediately busts.

4. Dealer

Dealer flips hole card, hits on 16 or less, stands on 17 or more.

5. Settle

Winning hands pay 1:1; natural blackjack pays 3:2.

If dealer wins, house takes rake. No rake if dealer loses or ties.

6. Rotate

Dealer button moves clockwise. Round ends after everyone has dealt once.

(See appendix for detailed rules.)

Fairness & Expected Value

Battle 21's rotating dealer setup eliminates the fixed house edge found in regular blackjack. Every player takes a turn as dealer each round, so everyone faces the same conditions.

Simulations from March 2025 (10 million hands, six-player tables, two-deck shoe, basic strategy with no card counting) showed players holding roughly a 0.08% advantage per

hand against the automatic dealer rules. Because every player deals once per round, no one starts with an edge before rake. The house makes money only from the posted rake—typically 5%, capped at one unit per hand.

Over time, your results depend on your decisions versus the other players at the table. Short-term swings can happen, but decision-making matters more the longer you play.

Future Plans & Development

Mobile App

We're building a free-to-play Battle 21 mobile app to make the game easy for anyone to pick up, practice, and enjoy. This app will introduce new players to Battle 21 and help grow our community.

Dedicated Online Platform

We'll launch a standalone Battle 21 gambling platform built entirely around our transparent rake model—no hidden house advantage.

Tournament Play (WSOP Style)

We'll create Battle 21 tournaments modeled after poker's World Series of Poker. These tournaments will highlight the competitive, skill-based aspects of Battle 21 and help build a dedicated tournament scene.

Casino Partnerships

We'll look to partner with both physical and online casinos to expand Battle 21's reach, attract new players, and firmly establish the game in regulated markets.

Legal, Ownership & Availability

- **Patent:** Provisional Patent 63/804650, filed 13 Mar 2025, covers Battle 21's rotating-dealer mechanic, fixed-unit structure, and rake-only revenue model.
- **Prior Art:** This document (SHA 256 stored on GitHub, 15 May 2025) publicly discloses all core mechanics, establishing clear prior-art timestamping.
- **Availability:** Full patent filing details and simulation data will be released separately.

- **Disclaimer:** This document is informational only and not an offer of gambling services.
- **Contact:** team@battle21.com