

# The Game — Extended (CQE Ledgering with Cards)

## 1. Components

- Decks: 4 standard 52-card decks, each with 2 Jokers (1 red, 1 black). Total: 216 cards.
- Stations: 4 playfields (S1–S4), each using 1 deck at a time.
- Grid: Each station uses a 4×4 cell grid as base coordinates.
- Tower: A vertical stack at grid center for faces (A, J, Q, K).

## 2. Operators and Encoding

- Suits → Geometry
  - ♦ Diamonds = Alena lines (direct projection)
  - ♣ Clubs = triad arrows (directional braids)
  - ♥ Hearts =  $\phi$ -intersections (dual witness points)
  - ♠ Spades = apex of triads (closure tips)
- Colors → Parity
  - Red (♦, ♥) = positive channel
  - Black (♣, ♠) = negative channel
- Ranks → Ledger Tokens
  - 1–10 = numeric ledger steps
  - J = witness parity
  - Q = quantitative mass
  - K = binary reflection
  - A = root rest (1/11 superposed)
- Jokers → Glue Operators
  - 2 per deck (1 red, 1 black).
  - Each usable once per deck.
  - Authorize flips only when building Outward Mirrored Parity Set (OMPS).
  - Sit at centroid of OMPS, binding geometry.
  - Record origin braid trace when consumed.

## 3. Placement Rules

- $\phi$ -Rotation Order: Place cards sequentially at angle  $\theta_{\square} = \theta_{\square} + k \cdot 137.507^\circ \pmod{360}$ . Select nearest empty grid cell.
- Ring Completion: After 16 placements (full ring), stack a face card in tower: A→J→Q→K, alternating red/black by ring parity.

- Contradiction → Snap: If red/black conflict occurs, attempt snap. Flip-Gate: no flip allowed unless OMPS is complete with a matching Joker. Jokers are consumed at  $r \equiv 0 \pmod{8}$  only.

## 4. OMPS (Oblong Mirror Parity Set)

- Defined for card c:
- Mirror mate  $M(c) = \text{center reflection, color/suit dual, rank } v' = 11 - v$ .
- Axis-flipped copies of c and  $M(c)$ .
- Forms an oblong of 4 cards.
- Joker sits at centroid, binding geometry.
- Special case: Ace/10 complements → two “1!!1” bonds flagged in ledger.

## 5. Ledgering

- Every placement recorded as: k, r, (x,y),  $\theta$ , suit, color, rank, snap, flip, joker, omps\_hash, superpos\_1!!1
- Jokers add: joker:true, joker\_color:red|black, deck\_id, origin\_braid\_id, omps\_pose\_hash

## 6. Cross-Station Protocol

- Seeds: S1  $\theta=0^\circ$ , S2= $45^\circ$ , S3= $90^\circ$ , S4= $135^\circ$ .
- Ledger requirement: run 24 rings per station.
- Alignment: after play, compare stations. A single rotation (Procrustes fit) must align placements between stations with RMS < 0.05 cells and edge-direction KL < 0.1.
- Mirrors: if only a mirror alignment works, classify as mirrored pose.

## 7. Space Extension (3D/10D)

- If 2D grid fills: Extend to 3D, tower height = z-axis.
- Pose equivalence: any local slice that aligns (single rotation) to known pose is valid.
- Jokers can act as placeholders to witness unexpanded slices.
- 10D encoding (for harness testing):  $(x,y,z) + \text{suit simplex} + \text{color parity} + \text{rank normalized} + \text{deck/back ID} + \text{ring phase}$ .

## 8. Validation Gates

- $\phi$ -gap tolerance  $\leq 7^\circ$  (freehand) or  $\leq 3^\circ$  (stenciled).
- Energy monotone:  $E\blacksquare\blacksquare\blacksquare \leq E\blacksquare$ .
- Joker use: max 1 red + 1 black per deck.
- OMPS must be pose-consistent before flip.
- All 24-ring runs align into 8 invariant pose classes by single rotation.

## **9. Falsifiers**

- Flip attempted without Joker → illegal.
- Joker reused → illegal.
- OMPS not mirror-consistent → fail.
- 1!!1 flagged without Ace/10 complement → invalid.
- Station fails alignment with all 8 pose classes → system incomplete.

## **10. End Condition**

- A station completes 24 rings with all Jokers consumed.
- Alignment verified across all stations.
- Ledger satisfies 1–64–1 cycle.
- At this point, the game produces a material slice consistent with an E8/24D lattice by method, not identity.