

Bare-Knuckle

Abstract

Bare-Knuckle is a two-player card game of martial arts attacks, counters and strategy. Players take turns placing cards in the fight zone and must balance slower more damaging attacks with faster more surprising ones. Punch, Kick, Wrestle and Choke your way to victory inside the *Bare-Knuckle* octagon. But remember, a true *Bare-Knuckle* martial artist knows that every attack has a counter and that victory often lies in waiting for the right moment to strike.

Materials

- Two players
- Pre-constructed decks
- Four Dice: Two D8 and Two D10 Dice

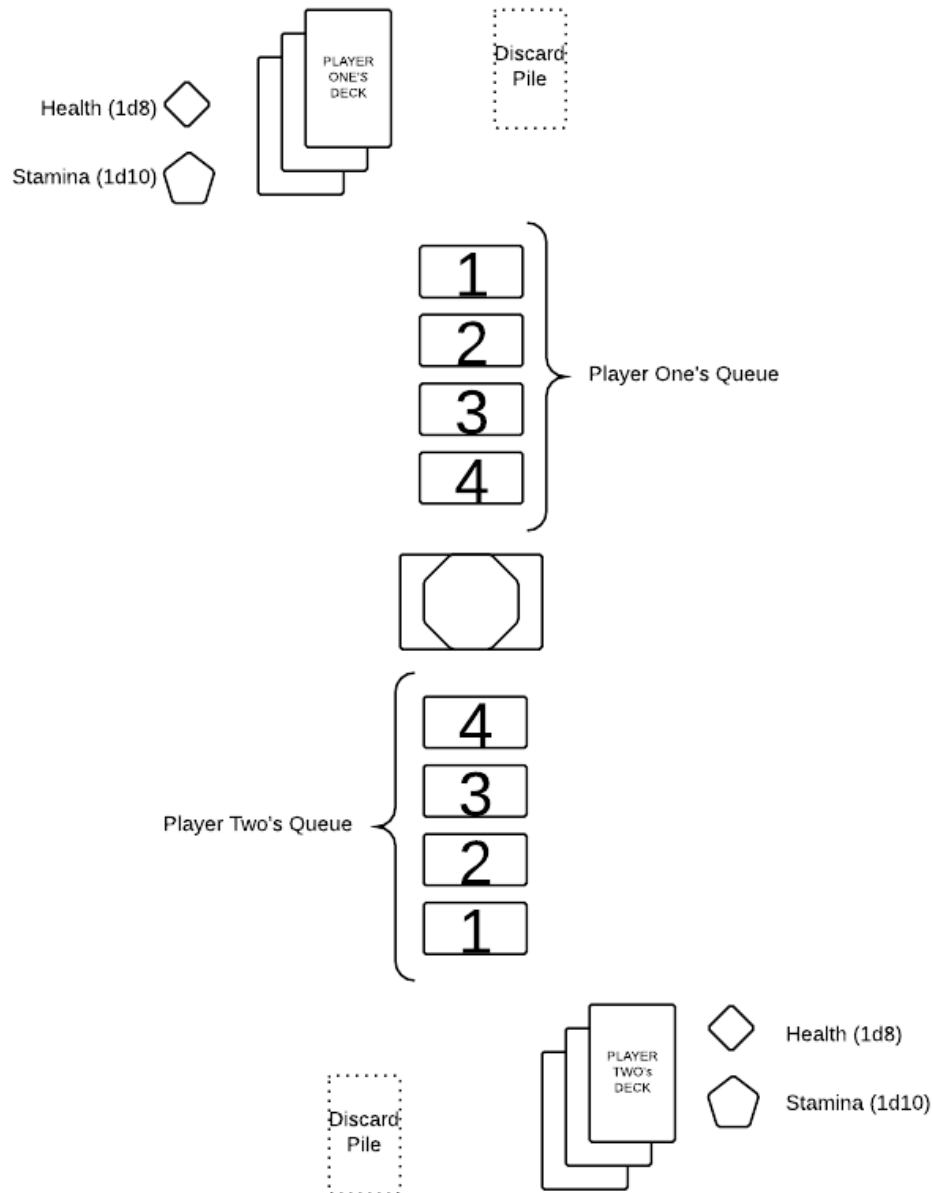
Rules

Overview and Set-Up

“Bare-Knuckle” is a turn-based, mixed-martial arts card game for two players. Each player is given a custom fighting deck of 20 **Fight Cards** and 2 dice, a 1d8 and a 1d10. The 1d8 represents the player’s **Health**, and the 1d10 represents the player’s **Stamina**.

To win the game, the player must reduce his opponent’s Health to 0.

Before the game begins, players shuffle their 20 **Fight Cards**, set up the **Fight Zone**, and set their Health and Stamina dice to their highest value. The set up is shown in the figure below.



The Fight Zone is created using 9 cards: two sets of 4 individual queue cards and 1 **Octagon** card. Queue Cards are numbered 1 through 4. Each number represents a Row where the players can place their Fight Cards. Players put cards into play by placing them into a **Queue Row**.

Players begin the game with their maximum amount of Health and Stamina: 8 Health and 10 Stamina. Players lose Health by taking **Health Damage** from Fight Cards. They cannot regain Health.

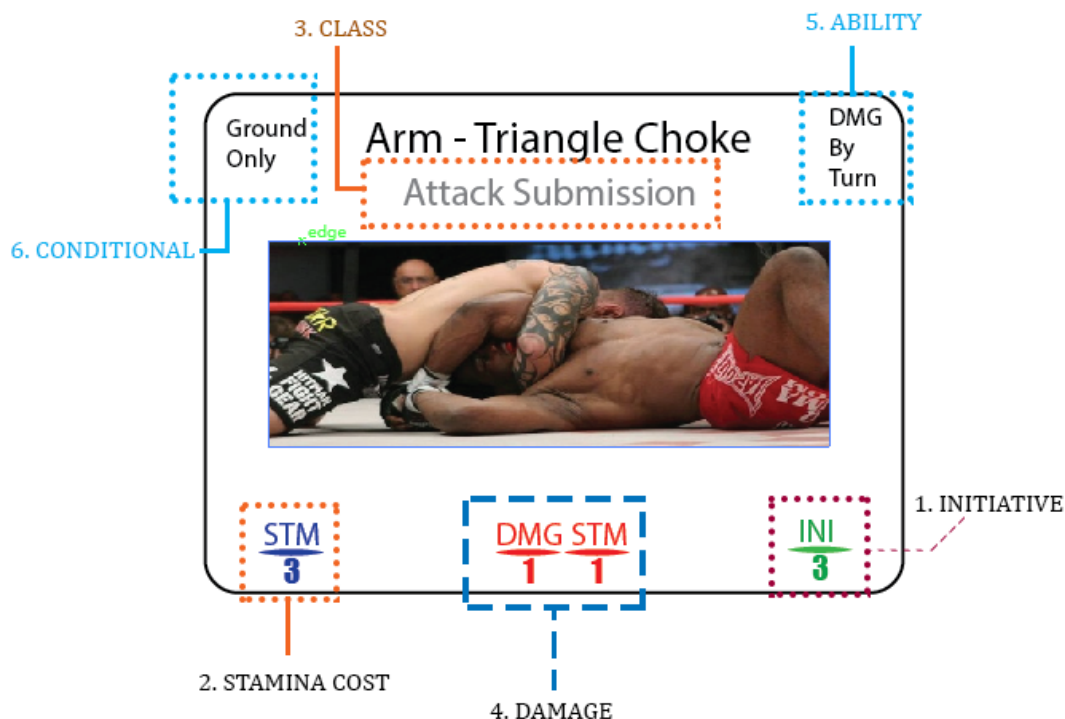
Players lose Stamina by playing Fight Cards or by taking **Stamina Damage** from fight cards, and they regain 3 Stamina at the beginning of their turn. Each player keeps track of their Health and Stamina with dice: 1d8 for Health, 1d10 for Stamina.

1) The Fight Deck: Card Values and Card Types

A player's **Fight Deck** consists of 20 Fight Cards. Fight Cards are made up of a number of real-life martial arts moves that players can use against their opponent. For example, the "Spinning Head Kick" or "Double Leg Takedown." These moves are divided into two types of cards, **Attack Cards** and **Counter Cards**. Counter Cards can be used to block or nullify an Attack Card's damage but not a Counter Card.

Each card consists of a **Name** and six other parts:

1. **Initiative**
2. **Stamina Cost**
3. **Class**
4. **Damage**
5. **Ability**
6. **Conditional**



- **INITIATIVE** indicates where the Fight Card can be placed on a player's queue. Players play a Fight Card from their hand by placing it face up next to a Queue Card that is less-than or equal to the Fight Card's Initiative value. If a Fight Card has an Initiative value of 3, it can be placed next to the Queue Card 1, 2, or 3.
- **STAMINA COST.** This value indicates how much a card costs to activate in the Octagon or how much the card costs to **Boost** the card.

- **CLASS.** *"Bare-Knuckle" has two types of Fight Cards—Attack Cards and Counter Cards, that unleash four different attacks or counterattacks:*

- 1) *Punch*
- 2) *Kick*
- 3) *Wrestling*
- 4) *Submission.*

An Attack Card can deal damage to an opponent by reducing his or her health, stamina or both.

The Counter Card can reduce or nullify the effects of an Attack Card if they are the same type. For example, "Dirty Boxing" is a Punch Attack that can be nullified by "Bob and Weave," a Punch Counter.

Some Counter Cards also deal damage to the opponent. For example, the Wrestling Counter, "Knee to the Face" deals 2-health damage if activated.

- **DAMAGE.** *This value indicates how much an opponent must reduce their Health or Stamina if Attacked. This is split into 2 categories: Health Damage and Stamina Damage.*
- **ABILITY** *indicates any special effects a successful attack may have on an opponent.*
- **CONDITIONAL.** *This indicates the condition for an attack or counter. For example, players must be **Standing** to successfully attack with a Wrestling move and on the **Ground** to attack with a Submission move.*

2) Standing and Ground Combat

There are two combat positions in "Bare-Knuckle," Standing position and Ground position. Players begin the game Standing.

While standing, players cannot attack with a Submission card. If a player (Player 1) attacks their opponent (Player 2) with a Wrestling Card or a Takedown Counter Card, both players enter Ground position. Both Players will remain on the Ground until one of the following happens:

1. Player 1 chooses to change back to Standing Position.
2. On his or her turn, Player 2 pays 3 Stamina to return to standing position
3. Player 2 activates a counter that returns players to Standing position

Neither player is forced to return to Standing position. While on the Ground, players can attack with a Submission Card but not with a Kick or Wrestling card.

3) Phases of a Turn

After the game is set up, players take turns drawing cards into their Hand and placing the cards into Queue Rows. There are three phases to each turn.

PHASE 1: Renewal Phase

PHASE 2: Placement Phase

PHASE 3: Advancement Phase

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PHASE 1: Renewal Phase

At the beginning of their turn, the player draws a card and adds it to their Hand. Then he or she replenishes 3 Stamina up to 10 by adding 3 to their Stamina Die. Players can spend 2 Stamina to draw another card. They can draw as many cards as they can pay for. To recap, the player does the following during their Renewal Phase:

1. Draws a Fight Card
2. Replenishes 3 Stamina
3. *Optional:* Spend 2 Stamina (per card) to draw additional Fight Cards

PHASE 2: Placement Phase

Players play a Fight Card from their hand by placing it face up next to a Queue Card that is less-than or equal to the Fight Card's Initiative value. For instance, the Fight Card, "Jab," has an Initiative value of 3, so it can be played next to the Queue Card 1, 2, or 3. Players can place as many Fight Cards as they want during this phase.

Players may also **Boost** their Fight Cards during this phase. A **Boost** will advance a card by 1 Queue Row if the player pays the Fight Card's Stamina Cost. A player can advance a card this way as many times as he or she likes. Players can advance multiple cards

To Recap:

1. *Optional:* Place Fight Cards on Queue Row
2. *Optional:* Boost cards by paying their Stamina Cost

PHASE 3: Advancement Phase

At the end of the turn, both players advance their cards up 1 Queue Row. If cards advance past Queue Row 4, the card enters the **Octagon**. For example, if "Jab" is on Queue Row 4, it will now move to the Octagon during this step.

The Octagon:

- ***Paying Stamina Cost.*** When Fight Cards enter the Octagon, the player pays the Stamina Cost of all of his Cards by deducting the number from their Stamina die. If the player does not have enough Stamina, the player must reduce his or her Stamina to zero; all Fight Cards do not activate and are discarded. If the cost is met, cards activate.
- ***Turn Order in the Octagon.*** If both players have cards move into the Octagon, players take turn activating cards. The player whose turn it is goes first.

A Counter Card can be played upon an opponent's Attack Card or in response to a player's Attack Card.

For example, Player 1 has the Punch Attack "Jab," and Player 2 has the Punch Counter "Bob and Weave." If Player 1 attacks with "Jab" during their turn, then Player 2 can counter it with "Bob and Weave." Also, if Player 2 goes first, they can play "Bob and Weave" on "Jab" and nullify the Attack Damage.

If a player has a Counter Card that cannot be played on an Attack Card, the Counter has no effect.

- ***Discard.*** After players have activated their cards, cards go into each player's respective discard pile.

To Recap:

1. Both players pay the sum total of their Fight Cards' Stamina Cost in the Octagon. Player cannot activate their cards if the sum total cannot be paid and must reduce their Stamina to 0
2. Player whose turn it is activates a card first
3. Counters can be played on Attack Cards or in response to Attack Cards

After all the cards have played out, the players adjust their Health and Stamina, and the other player begins their turn.

Playing a Game

Who goes first?

Each fighter begins the game by shuffling his or her deck of Fight Cards and drawing the top 5 Fight Cards from his or her deck—this is the player's **Hand**. To determine who goes first, fighters roll their 1d8 die. The player with the highest roll begins the game. For demonstrative purposes, we will refer to the high roller as Player 1.

Opening Phase: Setting Up the First Cards

During the opening phase, players take turns placing Fight Cards facedown onto a Queue. A Fight Card may be placed in a Queue Row with a number less than or equal to the Fight Card's Initiative value.

Since Player 1 won the roll, he or she will place the first card facedown. Now Player 2 will also place a card facedown. Players can continue to place cards until they run out of cards. Placing all of one's hand in the Queue during the opening phase is not recommended for beginning players.

Whenever there are an equal number of cards placed in the Queue, a player may say, "Done" to end the opening phase. We recommend that Beginner's start by placing 1 or 2 cards each.

After ending the opening phase, players turn their placed Fight Cards face-up and each player draws from the top of their deck to refill to 5 cards.

Turn-Based Combat: Drawing Cards, Placing Cards, and Advancing Cards

Fighters will now begin combat. Since Player 1 won the roll, he or she will begin their turn by drawing a card and replenishing 3 Stamina. Since his or her Stamina is already at 10, this will not affect their Stamina this turn. During this turn, Player 1 can do any the following moves:

1. (Optional) Place a card from his/her hand into the Queue.
2. (Optional) Pay "n" STM to Boost a placed card up one Queue Row (where "n" is that card's STM cost).

Once these actions are finished, Player 1 now enters his or her advancement phase. In the advancement phase, both Player 1 and 2 move all of their cards in their Queue up one row. For example, if a player has two cards in Queue Row 2 and one card in Queue Row 3, they would move the cards in Queue Row 2 up to Queue Row 3 and the Queue Row 3 cards into Queue Row 4.

If a player has cards in Queue Row 4 before the advancement phase begins, then those cards move into the Octagon once the player enters the advancement phase. If any player has cards in the Octagon at the end of the advancement phase, then players engage in combat.

Players immediately pay the stamina cost of all of their cards in the Octagon. If a player cannot pay the cost of all the cards in the Octagon, then their cards are removed from the Octagon and their Stamina is reduced to 0.

The player whose turn it is attacks first. Players attack their opponent by selecting an attack or counter card that is in the Octagon and pay the Stamina cost of that card. If an Attack Card is played, then the defender is given a chance to reply with an attack or counter card. Otherwise, if a counter is played, then the player who plays the counter can select an opponent's attack and nullify it.

Once a card has been played, it is then removed from the octagon and placed in the discard pile. Players take turns going back and forth until there are no cards remaining in the octagon. Once there are no more cards remaining in the octagon, the player's turn ends, and the opposing player may begin their turn.

Design Process Statement

With *Bare-Knuckle*, we approached our process differently than in previous projects. To avoid falling into the endless cycle of theory-crafting game ideas, we all met up early on and spent time defining a core vision for what we wanted *Bare-Knuckle* to become. In our heads, *Bare-Knuckle* was a game that was a fight simulation between two mixed martial artists. In the game, players would be able to use one of three fight styles (striking, wrestling, submission) to finish their opponent. We not only wanted the players to feel like they were in a real fight, but also wanted the players to fight intelligently in a fashion similar to the game designs of *Magic: The Gathering* and *Netrunner*.

With the core vision found, we solely tasked Zeke with coming up with prototype rule set while Jonathan, Shervin and Nick would each create one deck based on the rule set that Zeke came up with. This allowed us to develop a draft rule set and a set of decks quickly so we could spend most of our time iterating over them.

With our decks and rule set created, we immediately began playtesting our game. It didn't take long for us to find that *Bare-Knuckle* wasn't enough of a simulation as we had hoped. We had found the decks didn't play differently enough for the game to feel like a MMA fight. This was due to two reasons: our rule set abstracted too much with regards to ground fighting and ground fighting decks (Wrestler and Sub. Specialist) played the same as the others. To fix this, we first changed the game's rule set by adding a "ground" state where players could wrestle their opponent to the ground and gain a positional advantage. Afterwards, we went back to our decks and created a set of cards that could bring the fight to the ground.

After spending some more time playtesting, we found that while our new version felt more like an MMA fight, the game's strategic possibility space felt small and because of this, decks would only have one optimal strategy to play and players would discover and execute that strategy easily. Our first idea was to increase the strategic possibility space by adding conditionals to some cards so that those cards may only be played in specific scenarios. We quickly found that this wasn't a good solution as it was very difficult to balance and only made the game feel artificially deep.

After speaking to professor Zimmerman, we realized that *Bare-Knuckle* lacked the strategic possibility because its attempt at being a simulation. With this in mind, we went back to the rule set and came up with the timeline feature. Instead of playing cards in a similar fashion to *Magic: The Gathering*, players now played their cards by placing them in their appropriate spot in the timeline and wait a certain number of turns for them to execute. This shifted *Bare-Knuckle* to be more about resource management and dramatically increased its strategic possibility space. By introducing the new timeline feature, we had to go back and rebalance all of the decks so that they fit well with this new version of the game.

Since we spend the majority of our time iterating over the game and addressing the issues that appeared during our playtests, we gained a lot of useful information with regards to our card design and were able to take that information into account when

redesigning them.

Despite some of the issues that are still present in *Bare-Knuckle* we are all very proud of what we were able to accomplish with the time given. We took a real-life sport and abstracted out its elements to turn it into a turn-based card game with plenty of strategic depth while keeping the feeling of playing the sport itself.