

# **Beastmaker Evolution: Paper prototype**

## **Group 6**

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## ***General Idea:***

The main points that a fighting game relies on are: rapid timing, prediction of enemy actions, different attacks and combos.

To test such a game on paper is not easy in general, but since our evolution phase is card based it makes sense to model the entire game as a card game.

The timing and prediction aspects are modeled by having to play action cards several turns in advance and in rapid succession. This captures the fact that in a real-time fighting game the human reaction speed plays a huge role and the player has very little time to decide on the next move.

Different attacks are represented by a variety of action cards that can be played at any time. Combos naturally follow from the fact that these cards are divided into tiers of increasingly powerful attacks that need to be executed in their proper order for full effect.

The concept of delay enables the differentiation between slow and fast attacks and allows players to interrupt enemy actions.

Note that this prototype only models the combat rounds of the game, not the evolution phases. We have introduced a number of extra cards that roughly translate to creature cards in various slots, but our first and foremost goal was to define and test the base fighting mechanics.

## ***Setup:***

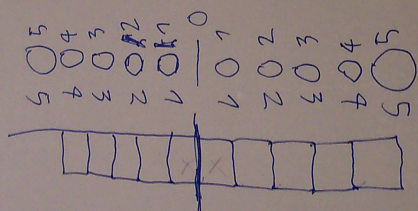
The prototype uses a piece of paper and several tokens (dice work well) to track different states throughout the game.

- Both players have a pool of lifepoints ranging from 0 to 20 (start at 20)
- A linear arrangement of 10 fields with 2 counters tracks the players' positions relative to each other (both players start on a field adjacent to the middle) \*
- A linear arrangement of 11 fields labelled -5 to 5 with a single counter tracks the delay of player actions relative to each other (starts on 0)
- The center of the playing field is where players play their action cards. It has three markers denoted I, II and III.
- Each player receives an identical set of 8 action cards (detailed below)

\* Note that while the game areas and character models will be displayed in 3D, the fight functionally takes place in 2D. Players can only move back and forth and distances are only relevant when considered relative to the enemy, therefore 2 dimensions are sufficient to model all actions.

See the pictures on the next page for an idea of how the game might look in practice.

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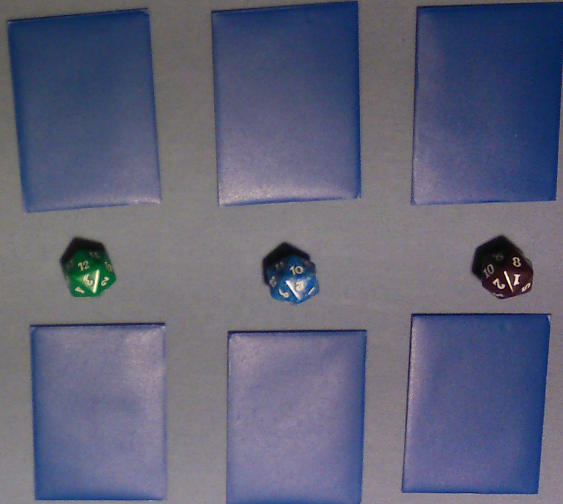


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## ***Gameplay:***

On the first round both players put one action card face down onto the playing field below each marker (I, II and III). A round counter is placed on I.

In each following round:

- The players simultaneously reveal their card at the marker with the round counter
- The revealed cards are resolved and player hit points, positions and the delay counter are updated accordingly.
- The cards are then removed. Action cards with no cooldown are taken back to a player's hand, otherwise the card is moved to the side and the cooldown tracked with a die. \*
- A new card is placed face down in the empty space.
- The round counter is advanced by one. If it passes the marker III then it resumes at I.

\* Note that cooldowns can also very easily be tracked by simply moving the card downwards a bit but leaving it on the field. Since all our cooldowns are multiples of 3, the cooldown only needs to be evaluated once the round counter reaches that marker again. For cooldowns greater than 3 progress can be tracked by rotating the card by 90° everytime this happens.

## ***Rules:***

- If the text of a card contradicts a rule, the card is right.
- When 2 cards are revealed, the faster card is executed first. Only then is the slower card resolved, if it was not disrupted.
- The speed of a card is determined by adding the speed of the card to the delay, where smaller numbers are faster
- If 2 cards have the same speed, they are both executed.
- Attacks that hit and are faster (are executed first) always disrupt the enemy action, which then has no effect. Movement and blocking never disrupts the enemy.
- All standard attacks have a range of 1. In order to hit successfully, the enemy must be in an adjacent position.
- Attacks are classified into ascending tiers of power:  
**(very weak) < weak < medium < hard < (very hard)**  
Attack cards must always have a higher power than the one played in the previous round, otherwise they have no effect. Blocks, Movement and Specials are exempt from this rule. This is to prevent endless combos by forcing players to take some other action between attack patterns.

## ***Card info***

The game itself is quite simple, but of course it is important what is written on the cards themselves.

There are 4 types of cards:

**Attack:** Represents some form of attack. Disrupts enemy action on hit, can deal damage and delay.

**Block:** Blocks enemy attacks and reduces damage taken by a certain amount. A blocked attack does not cause any delay.

**Movement:** Movement changes the position of the character relative to the enemy.

**Special:** Special action. Can be any of the above or something else entirely. Usually very strong but has long cooldowns.

Cards will look something like this:

<b>Name:</b>	
<b>Card type:</b>	<b>Body part:</b>
<b>Initiative:</b>	<b>Disruption:</b>
<b>Text</b>	

**Name:** Name of the Card

**Card type:** One of the 4 card type mentioned above.

**Body part:** Which part of the body is used for the action (Arms, Legs, Body, Head, Tail, Wings, Skin...). This is important for the advanced cards only and will later roughly translate to the evolution slots.

**Initiative:** How fast the card is executed, the smaller the number the faster the card. (0-10)

**Disruption:** How much does it disrupt the enemy? (0 to 5) If nothing is stated it does NOT disrupt. Disruption is stated as a number inside a square.

**Text:** What does the card do, if not disrupted?

Basic Keywords:

**Deal X damage:** Decreases the opponents life counter by X.

**Block X damage:** Prevents X damage this turn.

**Disrupt X:** Disrupts the enemy's card (will not be executed) and delays next attack by X. (The Disruption counter will be placed on the number X). Disruption is always noted as a number in a square. Disruption does not happen, if the enemy blocks.

**Speedup X:** Speeds up your next Attack by X (move delay counter by X towards opponent), this is actually similar to disrupt, BUT it does not disrupt the enemy attack and also happens if the action is blocked.

Disruption and speedup can cancel each other out, so if several opposing effects happen just subtract the numbers from each other!

**Move :** Moves 1 position in the named position (the position counter will be moved in that direction if possible, no 2 counter can be on the same field and you cannot walk past the enemy).

**Low, Normal, High:** Where the attack hits/which attacks are blocked.

**(very Weak)/Weak/Medium/Hard/(very Hard):** How hard the attack hits (left combos into right).

**Range:** How far goes the attack (if nothing else is stated Range is 1).

**Evade X:** Evades attacks of the type X.

**Cooldown X:** This card cannot be played again for X turns (and then goes back into hand).

## ***The Cards***

### **Basic Cards**

Each player has a full set of the following 8 basic action cards (one each):

#### **Basic block:**

Block Body

Initiative: 1.5 Disruption: None

Blocks 2 damage from High and Normal attacks. Cooldown 3.

#### **Low block:**

Block Body

Initiative: 3.5 Disruption: None

Blocks 2 damage from Normal and Low attacks. Evades High attacks.

#### **Step Back:**

Movement Body

Initiative: 4.5 Disruption: None

Moves 1 Step away from enemy

#### **Run Forward:**

Movement Body

Initiative: 6.5 Disruption: None

Moves 2 Steps towards the enemy Speedup 1.

#### **Weak Punch:**

Attack Arms

Initiative: 4 Disruption: 3

Deals 1 damage to the enemy Normal, Weak attack.

#### **Medium Punch:**

Attack Arms

Initiative: 6 Disruption: 5

Deals 2 damage to the enemy Normal, Medium attack.

#### **Low Kick:**

Attack Legs

Initiative: 4 Disruption: 1

Deals 1 damage to the enemy Low, Weak attack.

#### **High Kick:**

Attack Legs

Initiative: 8 Disruption: 5

Deals 3 damage to the enemy High, Hard attack.



## ***Advanced Cards:***

Advanced cards are used to simulate the evolution phase. A player can have 5 of these in addition to the basic cards, one for each slot.

We tested some of these (mainly from the 3 first creature cards Earth, Spikey, Miao) by assigning them at random or choosing them with specific “builds” in mind. But the main focus was testing the basic set of cards, so much more time and effort went into that.

### **Defensive**

#### **Hard shell (Earth):**

Block                                      Body

Initiative: 1.5                              Disruption: None

Blocks 4 damage from High, Normal and Low attacks Speedup -1 (slows you down!) Ignore all effects from attacks which did not damage you. Cooldown 6.

#### **Spikes (Spikey):**

Block                                      Body

Initiative: 1.5                              Disruption: 2 (if enemy attacked)

Blocks 1 damage from Normal attacks. If enemy attacks you deal 2 damage speedup 1.

Cooldown 6.

#### **Light Body (Miao):**

Movement                              Body

Initiative: 3.5                              Disruption: None

Moves 1 Step away from enemy. Speedup -1.

Cooldown 3.

#### **Fast Wings (Chimera):**

Movement                              Wings

Initiative: 2.5                              Disruption: 0

Evades Low and Normal attacks. In the next turn your attack is a high attack. Cooldown 6.

### **Special**

#### **Tremor (Earth):**

Attack                                      Tail

Initiative: 4                              Disruption: 5

Deals 2 damage to the enemy Low, Very Weak attack. If it gets successfully executed it counts as a Very Hard attack. Cooldown 3.

#### **Poison Tail (Spikey):**

Attack                                      Tail

Initiative: 9                              Disruption: 0

Deals 1 damage to the enemy Normal, Very Hard attack. If it successfully hits the opponent he or she takes 1 damage at the start of the next 3 turns. Cooldown 3.

### **Carnivore (Miau):**

Attack Head

Initiative: 8 Disruption: 0

Deals 2 damage to the enemy Normal, Very Hard attack heals you for the same amount.  
Cooldown 3.

### **Acid Saliva (Chimera):**

Attack Head

Initiative: 3.75 Disruption: 1

Normal, Very Weak attack. If you successfully attack the enemy the next turn add 2 more damage to the attack.  
Cooldown 3.

### **Temper**

#### **Stampede (Earth):**

Special (Temper)

Initiative: 8 Disruption: None

Reveal any number of leg cards from your hand you may play them in a combo (normal combo conditions). If the enemy blocks the damage of every attack gets blocked. Cooldown 9.

#### **Thorny Being (Spikey):**

Special (Temper)

Initiative: 2.5 Disruption: None

For this and the next 4 turns, whenever you are hit by an opponent Deal 1 damage to him or her.  
Cooldown 9.

#### **Rampage (Miau):**

Special (Temper)

Initiative: 8 Disruption: None

Reveal any number of arm cards from your hand you may play them in a combo (normal combo conditions). If the enemy blocks the damage of every attack gets blocked. Cooldown 9.

#### **Battle Screech (Chimera):**

Special (Temper)

Initiative: 1 Disruption: 4

Speedup -2 (makes you slower) if enemy blocks he does not get disrupted. Cooldown 12.

### **Arms:**

#### **Hammer Punch (Earth?):**

Attack Arm

Initiative: 7 Disruption: 5

Deals 3 damage to the enemy Normal, Medium attack.



**Spike Punch (Spikey):**

Attack Arm

Initiative: 5 Disruption: 3

Deals 2 damage to the enemy Normal, Weak attack.

**Swift Claws (Miau):**

Attack Arm

Initiative: 3.75 Disruption: 1

Deals 1 damage to the enemy Normal, Very weak attack.

**Secondary Arm (Chimera):**

Attack Arm

Initiative: 5 Disruption: 2

Deals 1 damage to the enemy Normal, Very Weak attack.

**Legs****Stamp (Earth):**

Attack Leg

Initiative: 7 Disruption: 5

Deals 2 damage to the enemy Low, Medium attack.

**Stingy Leg (Spikey):**

Attack Leg

Initiative: 7 Disruption: 5

Deals 2 damage to the enemy Normal, Medium attack. This attack has Initiative 2 if you have Disruption 5.

**Swift Leg (Miau):**

Attack Leg

Initiative: 9 Disruption: 0

Deals 3 damage to the enemy Normal, Hard attack Speedup 4.

**Tentacle (Chimera):**

Attack Leg

Initiative: 6 Disruption: 5

Deals 1 damage to the enemy Normal, Medium attack. Range 2.

## ***Design Adjustments:***

During playtesting we made several adjustments to the numeric values of the action cards where we felt the balance required it. The most notable change here is the cooldown 3 on the basic block.

We noticed that long combos could always be disrupted by the enemy with this card (maximum delay is 5, plus the speed of basic block =  $6.5 < 8$  which is the initiative of most hard attacks). Even when playing 3 cards in advance the opponent can effectively avoid the last hit by playing a block whenever the first weak attack hits him. In order to allow successfully executing combos longer than 3 cards, we added the cooldown to the basic block. This introduces a bit more of a tactical element to the game, since proactive blocking can now be dangerous as it causes the player to become vulnerable to heavy-hitting attacks in the 3 following rounds. The player still has the secondary low block at his disposal, but it is noticeably slower than the basic block and therefore less effective. Note that this change is mostly only noticeable when playing with the advanced cards, which add very weak and very hard attacks to the mix.

Also for longer combos to be viable, we made the very weak cards slightly faster than the weak ones and we increased the disruption of some cards which felt too weak. In the initial design these cards were bad combo starters and there was almost no reason to use them.

In general the timings and delays were very carefully designed to allow the occasional very strong combo, but also allowing the victim some means to react or even disrupt the combo. On one hand it's no fun if the enemy blocks all your attacks all the time, on the other hand it's very annoying if the enemy can stunlock you for extended periods.

Being 3 turns ahead works quite well for attacking and blocking, but for movement it sometimes leads to situations where both players are away from each other and none of them wants to move first. Basically the problem is that movement is much faster than most attacks, so you can actually walk into a High Kick with no way to defend against it. We feel movement needs a bit more direct reaction to the enemy than the 3 turn delay offers and cannot be modeled with our prototype very well. We briefly experimented with different gameplay variants, e.g. ditching the I, II, III markers and revealing each card immediately after playing it. But this broke the other combat mechanics, so we didn't pursue the matter further.

The addition of ranged attacks in the advanced cards made movement much more useful beyond simply evading an enemy's attack. It became an actual strategy to employ hit-and-run tactics.

## ***Difficulties***

The most difficult thing during playtesting was to decide when a feature was actually imbalanced, and when the player was simply not using it correctly. We noticed early on that the game takes a lot of skill and concentration to play well, and sometimes our players were simply not evenly matched. When testing the advanced cards we decided to play each match twice and swapped the hand cards between the two fights.

This of course made testing take a long time, so we reduced the life total from 20 to 12 so we could test things in rapid succession. The number was chosen rather arbitrarily, but turned out to be a sweet spot between fast matches and being able to survive the occasional mistake or lucky hit.

The advanced cards could unfortunately not be tested in great detail due to time constraints and do not map so well to the creature cards as we could have hoped. The paper prototype does not model the full range of possibilities such as passive effects, charge attacks or other special features very well. Also a set of 12 handcards when using the advanced cards is sometimes overwhelming and may not map well to the game controls later. We will test these things again in a new prototype once the first playable demo implements the base combat mechanics.

## What We Learned

The prototype proves that the basic combat mechanics work and are actually fun to play. There is a slight element of luck involved because cards are played 3 turns in advance, but usually games are won by skill. Players gain an advantage by making smart predictions and choosing the right action.

Even with the basic set of cards, different playstyles and strategies emerged, such as playing defensively, going all-out attack or employing hit-and-run tactics. The advanced cards played well into these strategies or even opened up brand new ones, so even in their unfinished state we have proof that our evolution phases can add a lot of depth to the gameplay.

