Game Proposal: Beastmaker Evolution

1. Game Description

Beastmaker Evolution is a fighting game where two players compete against each other. The objective is to first combine aspects of various fantastical beings to create a powerful beast, and then to control this **avatar** to try and defeat the other player's.

The gameplay can be divided into two distinct phases:

An **evolution phase**, which takes the form of a card game, where both players create their avatars by making a series of tactical choices. In the first round, the players are dealt a hand of random **creature cards**. Each card depicts a fantastical creature with unique traits and abilities, and can be played in a number of different slots. The slots all modify the avatar's appearance and attributes in distinct ways, for example the defense slot can affect how much health it has or how much damage it resists. There are 5 such slots in total:

Defense, Offense, Movement, Secondary Action and **Special**.

The creature cards all have unique but mostly intuitive effects when played in the different slots. For example, playing an earth elemental in the defense slot will give the avatar tough, rock-like skin that absorbs damage from hits. Playing it in offense would grant strong but slow crushing attacks with huge stone arms to match. A shadow cat on the other hand is very agile and hard to target, so it would grant the ability to evade hits in defense and add lightning fast claw attacks in offense. See the concept art below for an example of how these cards might modify the avatar's appearance.

Each card features an image of the creature in question and a short description, but it does not include detailed information about what it does in each slot. We do this mainly because we want to invite experimentation and create a sense of discovery, to boost replay value of the game. It is part of the learning curve to figure out what each card does. This is especially important in the tactical aspect of the evolution phase detailed in the next paragraph.

The players take alternating turns at slotting one of the cards in their hand, thus allowing for a lot of strategic decisions. Once a card is played it becomes visible to the opponent, so with sufficient knowledge of the cards they can then react by playing their next card accordingly. The idea is not just to assemble the strongest possible creature, but to also outplay the enemy and gain an advantage for the following fight. The effects of each card are designed carefully for this purpose - there is no single best card for any slot, they all have different strengths and drawbacks. A card that may be extremely

effective against a certain combination may be only average or even weak against others. There is obviously also an element of luck involved by the random hand of cards dealt, but a skilled player should still stand a reasonable chance at winning when the draws are not ideal.

Once both players have filled all their slots the design is locked in and a visual representation of the creature is generated. The game then progresses to the **combat phase**, where the two avatars try to defeat each other. They each have a number of attacks and defensive moves at their disposal depending on the combination of cards they chose. The fight is planned to be real-time, but we may need to switch to a round-based approach should this prove too difficult to implement. A player loses the **round** when his creature is reduced to 0 hit points.

There is also a timeout after a few minutes, if none of the player achieves victory by that time the result is a **tie**. This is done so that fights do not drag on, to avoid player frustration or boredom when the avatars are too evenly matched.

There are multiple rounds of combat. Between each one there is another short evolution phase. These **intermediate evolution phases** are different from the initial one in that the players only get a single card to play that replaces the previous choice in one of the slots. The players select them from a set of 5 open, randomly drawn cards each round. The winner of the previous fight gets to pick first so has an obvious advantage, but the loser also gains the slight benefit of knowing the enemy's choice, thereby being able to react to and possibly counter it. This is to prevent the winning player from gaining more and more ground on the loser, making it impossible to catch up. Even if a player loses the first round of combat they should still be able to win the whole game.

In the event of a tie, both players receive a random card from the main deck and do not get to choose the slot it is played in. This is so that neither of them directly benefits from a tie while still forcing the creatures to evolve in some way in order to break the tie. It shouldn't be a general winning strategy to just tank up and survive until timeout, since losing your card in a random slot has the potential of being very harmful to both players.

The winner of the entire **match** is determined by the number of rounds each player wins. We chose this approach of multiple fighting rounds to extend the life span of the creatures and allow for iterative refinement of their designs. Players get to learn the specific weak points of their creation in each combat round and can compensate accordingly. This is also more in line with the theme of evolution, which is usually not a one-time event but takes place over extended periods.

1.1 Connection to project theme

Each creature card modifies the avatar in both capabilities and appearance, thereby evolving it. This is our central tie to this year's project theme of **evolution**. While the term is most often used in conjunction with Darwin's notion of inheritance, we were more interested in the general meaning of the word: **change**, development, growth. We wanted these changes to be firmly in the control of the player instead of using e.g. random mutations, because we feel games are more fun when the player can make meaningful choices. In our case, these choices not only affect the strength and looks of the avatar, but also the very playstyle of how the creature is controlled during the fight. This makes every round and match a unique experience. The random nature of evolution is still partly represented by drawing cards at random in the first evolution phase.

The alternating turns in which the cards are played also introduce a concept that is related to evolution, namely **adaption** to an ever-changing situation. The player needs to react to the choices made by the opponent and sometimes has to radically change strategies to keep up.

The fighting phase connects to the theme because in nature, the **superiority** of an evolved species is usually determined by conflict. The avatars fight to establish both the superior card choices and the skill of the controlling players.

1.2 A note on platforms and controls

While the evolution phase of the game can easily be adapted to a mouse and keyboard input, we feel that real-time fighting games are more suited to a controller. The card game nature of the first phase (opponents are not supposed to see each other's handcards until played) would naturally work best on separate screens, however this introduces significant complexity in terms of networking code. The combat phase itself can very easily be implemented as a single screen, fixed camera application, therefore we will most likely choose to implement the entire game in this manner. The players will be asked and trusted not to peek at each other's cards.

2. Technical Achievement

The main challenge of our game will be the visual representation of the evolved avatars. Each creature card modifies the appearance in a manner specific to it and the slot it is played in, but since there are 5 such slots the changes need to be blended with each other. This should be done as dynamically as possible since we obviously do not intend to create a separate model for every possible combination (n^5, where n is the number of available creature cards). We will utilise various morphing algorithms, procedurally

generated textures and animation blending. Because of these very specific requirements all our character assets will be created by the team.

3. "Big Idea" Bullseye

[WIP]

4. Development Schedule

Our layered task breakdown is as follows (each phase includes and expands the lower tier):

4.1 Functional Minimum

Fighting game with base creature, no evolution phase. Single round of combat. Single screen, fixed camera.

4.2 Low Target

Initial evolution phase, 3 slots, at least 3 creature cards.

4.3 Desired Target

Full 5 slots, at least 10 creature cards, multiple fighting rounds with intermediate evolution phases

4.4 High Target

At least 15 creature cards, advanced combat system (combos, charge-ups, cooldowns, more attack types, more diverse animations), special creature cards (affect gameplay, not avatar, e.g. copy or steal enemy cards), separate screens.

4.5 Extras

More creature cards (open ended), single-player mode, 2v2 mode, preconstructed decks, other rule variants (e.g. number of hand cards, etc)

[Schedule: coming soon]

5. Assessment

[WIP]