

# Technomages

Real Time Card Game by Eneko Orio Abril

## 1. Game Overview

### 1.1 Genre Choice

The game is a Real-Time Collectible Card Game (CCG). It came to be this kind of game by the evolution of the initial idea of the game, which was a turn-based RPG where attacks were performed by rhythmic patterns. However, the game naturally went along the possibility of implementing a card system, which is a powerful tool for monetizing F2P games. Also, the similarities with real life card games, and the possibility of attracting such a loyal audience, ended defining the final game concept.

Along with this, I have lately spent quite some hours playing card games (Hearthstone and Gwent), and deepening my knowledge on how and why they have worked so well in recent years. It seems that the genre, the CCGs, have flourished in the digital media. I was intrigued whether how could I give a twist to CCGs, and so, I ended working on a Real-Time Spell Casting CCG. More to come in section 2.

#### 1.1.1 *Bidimensional Game*

The game is depicted in a 2D world. This is for 3 main reasons:

- a. **Card art.** The art in the cards is one of the most important things in a CCG. There is much need of beautiful hand drawn images that make each card unique and attractive.
- b. **Game Space.** Card game occurs in a 2d game space, there is no need for vertical axes.
- c. **Production.** Developing 2d games is, in principle, much faster than 3d games. Meaning that development time can be cut, which in turn lowers the total cost of the development of the game.

### 1.2 Context and Art Direction

The game occurs in a distant future, where magic and technology have merged into one. With this new age, mages and sorceress have evolved their skills, now they are called Techno Mages. They draw energy from digital mana and can cast their spells by concentrating kinetic energy with their hands.

In this world, meritocracy reigns, but war is forbidden. To avoid violent confrontation, Techno Mages solve their disputes in controlled matches, magic fights are now a sport. Organized groups (guilds) unite and fight together. Those ranked top rule over the country. Thus, there is a constant flux of duels and championships for the control of politics, economics and social favour.



### 1.3 Player Role

Player takes control of a freelance Technomage who wants to be the master of all on earth. For that, he/she must dive into the competition and beat all Technomage until he/she is number one. Along the way, the player can opt to join forces with other Technomage in guilds and rule supreme together.

### 1.4 Target Audience

The game is a Collectible Trading Card Game aimed for fans of this genre. It offers all the elements that make a CCG fun, deep and long-lasting:

- Lots of collectible cards with superb artwork.
- Expansions every 3 months. Meta game refreshed and/or new mechanics.
- Customizable strategies.
- Competitive scene.

However, it also offers a new twist by implementing a real time system, not often found in card games. Also, gameplay mechanics are ergonomically designed to fit mobile gaming needs (pattern swiping, see section 2). This makes for a more agile and visual experience, where player interacts more often, and he/she would potentially be on the verge of the seat on each of the matches. With skill there is always a slim chance to win, even if player's cards were not that good.

These features can be translated into 2 main prototypical profiles of potential players:

#### **Primary Audience – Monetizable players**

***Core players, economic patrons. Competitive Scene.***

Experienced players in CCGs

Love for Sci-Fi and Fantasy

17 – 23 age range

Eastern players with Oriental Themed Card expansions (China)

#### **Secondary Audience – Viralizable Player**

***Casual players. Non monetizable but good viralization/expansion ratio per user.***

Experienced casual mobile players

Players looking for other CCGs (Hearthstone) alternatives

23 - 30 age range

## 1.5 Key Selling Points

As for November 2018, Googles Play Stores top 3 CCGs are:

1. Hearthstone **+10M** downloads
2. Yu-Gi-Oh! Duel Links **+10M** downloads
3. Shadowverse CCG **+1M** downloads

One aside from commonalities shared by all CCGs (see section 1.4 Target Audience), the 3 focus on slow-paced turn-based approach. Players take turns to attack each other. This completely tilts the balance towards a more reflexive and non-skill-oriented gameplay.

Moreover, they also lack spatial mechanics. An exception could be *Yu-Gi-Oh!* Where players can position cards in 2 different states. However, it does no matter if placed left or right of the board.

This game proposal tries to embrace all the features that any good CCG must have but tries to differentiate from competitors by adding 2 gameplay twist. This positions the game as a distinct experience from what other CCGs are offering and eludes being diluted by the many clones (either mechanically or artistically) these 3 games have.

- **Dynamic** Real time game.
- Shared cards and board, *à la Texas Holdém*. Play with **hidden** and **known information**.
- **Space management**. Mana positioning benefits from placing the cards in on place or another. Also because of some power ups (See section 2) cards can move from tile to tile generating butterfly effects.

## 2. Game Systems

Both players **place cards** in the board to later use them to **draw patterns** that will **cast spells** against the opponent in **real time, no turns are taken**. Spells can hurt players or inflict ailments. Players must seek **strategical equilibrium** on the board, as the **cards** placed can **benefit both** player and rival. The first that depletes the Hp of the other wins. As an introduction:

- Players engage in battle in a **shared board**. Their goal is to **deplete** rivals **HP**
  - o Each with their custom decks
  - o Decks are composed of Mana Cards and Spell Cards.
- Players have **5 cards** in their **hand**
  - o Every time they use/consume one of them, player draws another card from the deck
- Players **Attack rival**
  - o Placing mana cards on the board, which are also usable by the rival.
  - o Drawing a pattern (swiping over the mana cards on the board) defined in a spell card held in hand.
  - o To cast spells a determined amount of energy is used. Energy is replenished automatically over time.
- Players **repel attacks**
  - o By reproducing spell pattern made by the rival player before spell is casted.

## 2.1 Game States

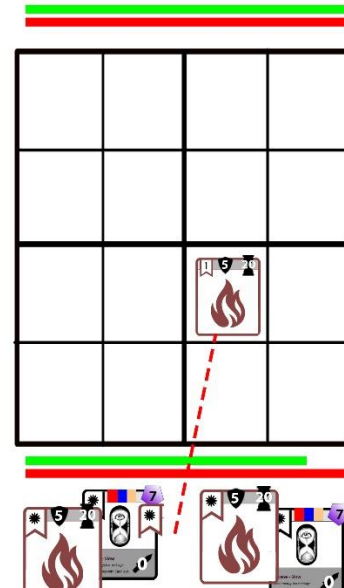
In depth explanation in point. The game focuses in macro states, Combat and Off-Combat:

### 2.1.1 Combat

This state is where action happens. Players engage and attack each other until one defeat the other by depleting its HP bar. During combat 4 micro states can be identified.

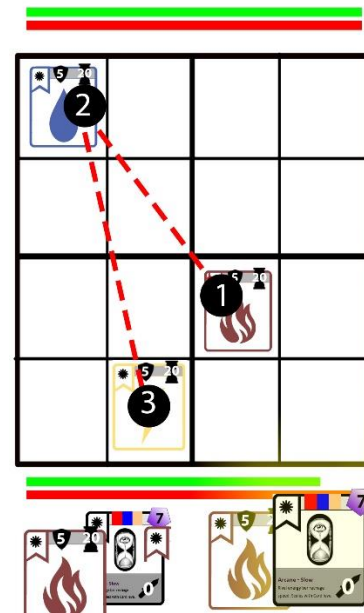
#### Mana Positioning State

Players drag and drop a mana card from their hand into the desired position at the game board. These cards are usable by the rival too. When a mana card is positioned, another random card from the deck is put in the hand, always having 5 on hand. Both players share the board and mana cards positioned on it.



#### Spell Casting State

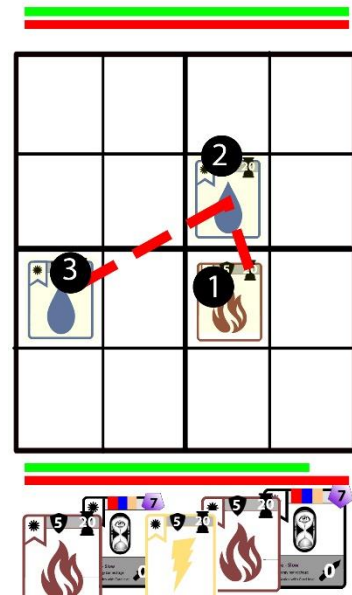
Players connect in a determined pattern the mana cards on the board. Pattern is defined in spell card (left-to-right) in the upper border of the spell card. When a spell is activated the corresponding card is discarded, then, another random card from the deck is put in the hand, always having 5 on hand.





### Spell Repelling State

While rival spell is being casted. Players can reproduce rival's just casted spell pattern to effectively cancel the rival spell. Used cards will glow sequentially.



### Get rewards State

After one of the players is defeated game present the combat result screen. Here players can see what resources they have earned and see how many experience points have earned (filling bar visual representation)

#### 2.1.2 Off-Combat

The macro state where preparations, navigation and resource management are done.

### Manage Cards

Players can upgrade cards (mana and spells) in various ways. They can also prepare the deck they will use in the combat phase by selecting cards (mana and spell).

### Manage currency

Players can generate resources by either exchanging them or using real money. They can also get the regular rewards here.

### Navigate

Players can move to locations and stages by using the map. All options are present in there.

## Match Making

Players can engage in competitive matches against real players. They can enter momentary championship and level up their ranks and/or duel players by betting resources and/or cards.

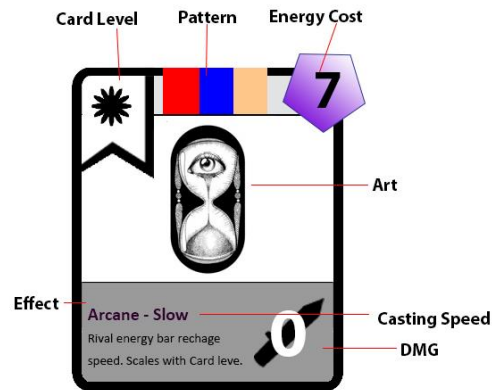


## 2.2 Game Entities

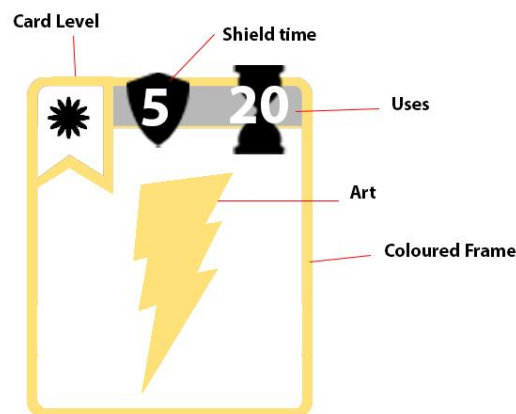
### 2.2.1 Entities

**Player Avatars:** They represent the avatar of each of the players in the contest as well as their current state. If killed the game ends in favour of the rival.

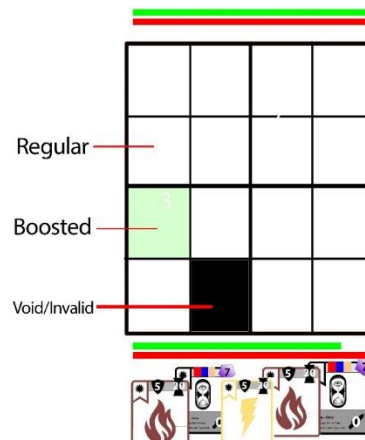
**Spell Card:** They represent the abilities players can use in combat. Mana in the determined pattern is needed to cast them.



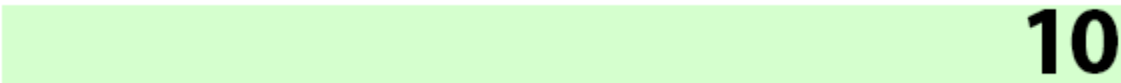
**Mana Card:** They power source for the spells. They are placed in board's tiles and linked by swiping over them in the pattern the spell determines (see Section 2.1.1 again). Adjacent mana cards of the same type sum their level (e.g.: if two fire lvl.1 mana cards are next to each other, both get promoted to lvl.2).



**Board Tile:** Position unit in the board. Can hold 1 Mana card. Can alter the mana card if boosted (more in section 3. Level design).



**Energy Bar:** Represent the numerical energy value. It is needed to position mana in the board and cast spells. Changes colour if suffering ailment.



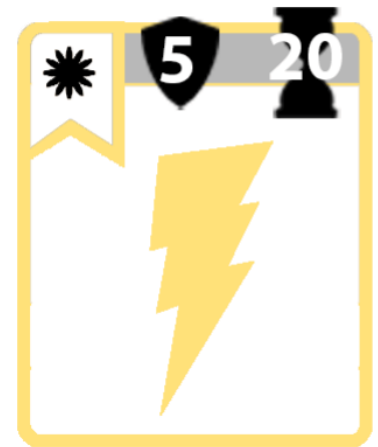
### Mana Card

**Level** of the card determines how the effect/dmg of the spell will scale. The higher the level the more DMG or success rate for effects. The level and the cost of placing the card is the same (e.g.: lv. 3 mana cards cost 3 points of energy to place)

**Type** of the mana cards is used to generate deep combinatory possibilities in terms of patters for spell casting. For purposes of clarity I will define 4 elements (**Fire, Water, Lighting, Earth**) plus a wildcard element, for a total of 5. This packed in patterns of 3 gives  $n^r$ ,  $5^3$ , permutations or in this case 125 patters.

**Durability** of the mana card. Mana cards have limited uses. Mana cards will disappear from the board once their lifespan is completed, but NOT BEFORE players ends casting his/her spell. This durability varies depending on the card (e.g.: After n uses, after t time passed, after both players used it, etc.)

**Shield** determines how many times and/or for how long is the mana card only available for the player who positioned it. This prevent from cards being immediately “robbed” by rival player and give enough time to its caster to use. Once the shield is depleted, which is represented as a Cooldown meter for the rival player, will be available for both players in the game.



### Spell Card

**Pattern:** Determines which mana cards and in what order are needed to be activated. As for the game proposal, patters are 3 mana cards length. Patterns can be any permutation of the 4 elements (plus wildcard). This pattern must be completed for the spell to be casted properly. If so, spell is casted.

**DMG:** Effective base damage of the spell. All spells inflict damage, albeit low. The additional damage is proportional to the level of the mana cards used to cast it.

**Energy:** Energy needed to cast the spell. The energy points are detracted from the energy bar when spell is casted. When a spell is available for use (enough energy and enough mana on board) the spell card will shine.



**Effect:** Ailment that can be inflicted upon the rival player. Effects have base effectiveness that can be scaled by using higher level mana cards when casting. Effects can target Rival/Player HP, Rival/Player Energy bar and on-board mana cards.

**Speed:** Time that takes for the spell to apply its payload after being casted, similar to a charging meter. After 100% of charge is reached the spell unleashes its magic (dmg, effect, etc.). During this charging period, the rival player can repel the spell by repeating the patten that casted it.

## Player

**Health Points:** Points of damage a player can take before dying and losing the match. Points are calculated when a player receives a spell, be it beneficial (healing, buff) or harming (dmg, ailment)

**Energy:** Max number of energy points for spell casting. These stats alter the energy bar, being directly proportional to it (10 energy = 10 max energy in Energy Bar).

**Ailment Def:** Resistance to ailments. The chance of defending from a spell's effect. The higher the value, the easier for players to evade ailments.

**Level:** Level defines status of a player, like the experience/skill of the player. It has no effect on gameplay. It is used to access higher ranked lobby's in competitive matchmaking.

## Board Tile

**Validity:** Whether is a valid tile to put a mana card on it. Tiles marked (with a visual representation) cannot be used to place a mana card.

**Buff:** Whether the tile alters the spell. Like so;

- The tile is marked by a visual representation (More damage, unlockable, half energy cost, etc.)
- Mana card is placed on the tile
- Player uses that mana card to cast a spell.

## Energy Bar

**Buff/Debuff:** Ailment that affects Max Energy and/or Recharge Ratio momentarily (e.g.: freeze, haste, curse, etc.)

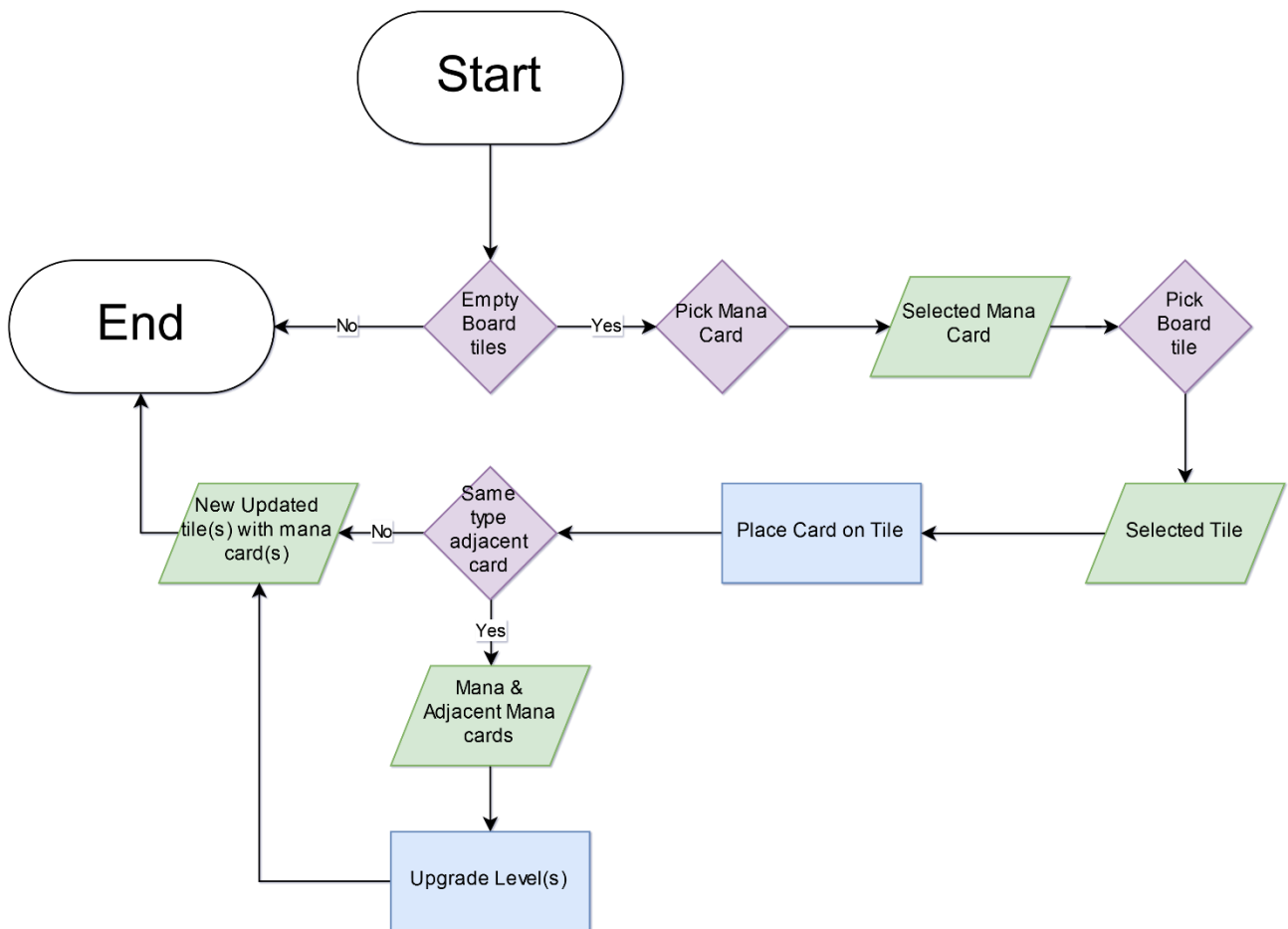
**Max Energy:** Max points of energy the bar can hold for spell casting. When used a spell points are deducted from bar. Max energy can be affected by ailments/buffs (e.g.: curse, half max energy for 5 seconds).

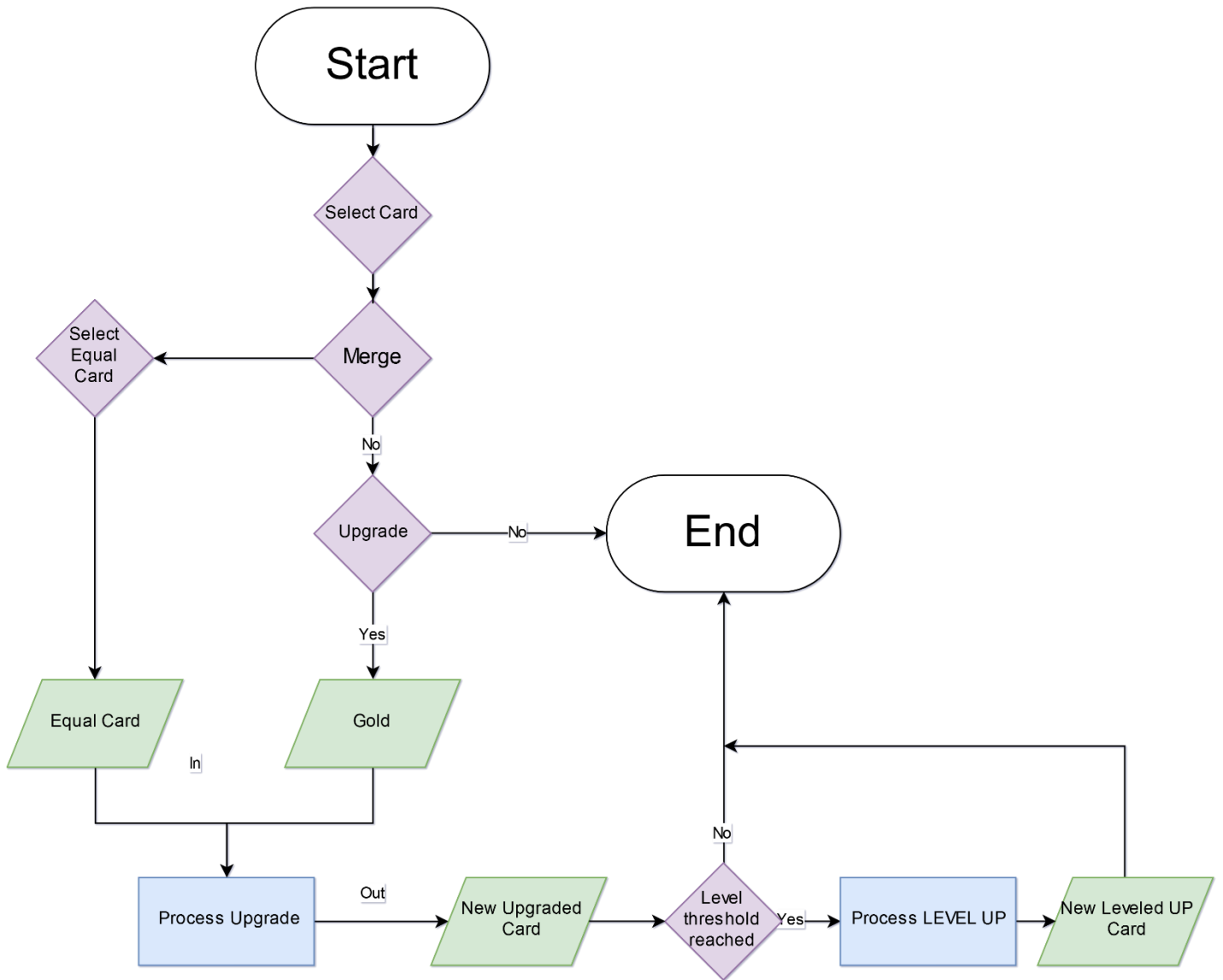
**Recharge Ratio:** Points per second recharged by the bar. Constantly happening. Recharge ratio can be affected by ailments/buffs (e.g.: haste, twice the recharging speed).

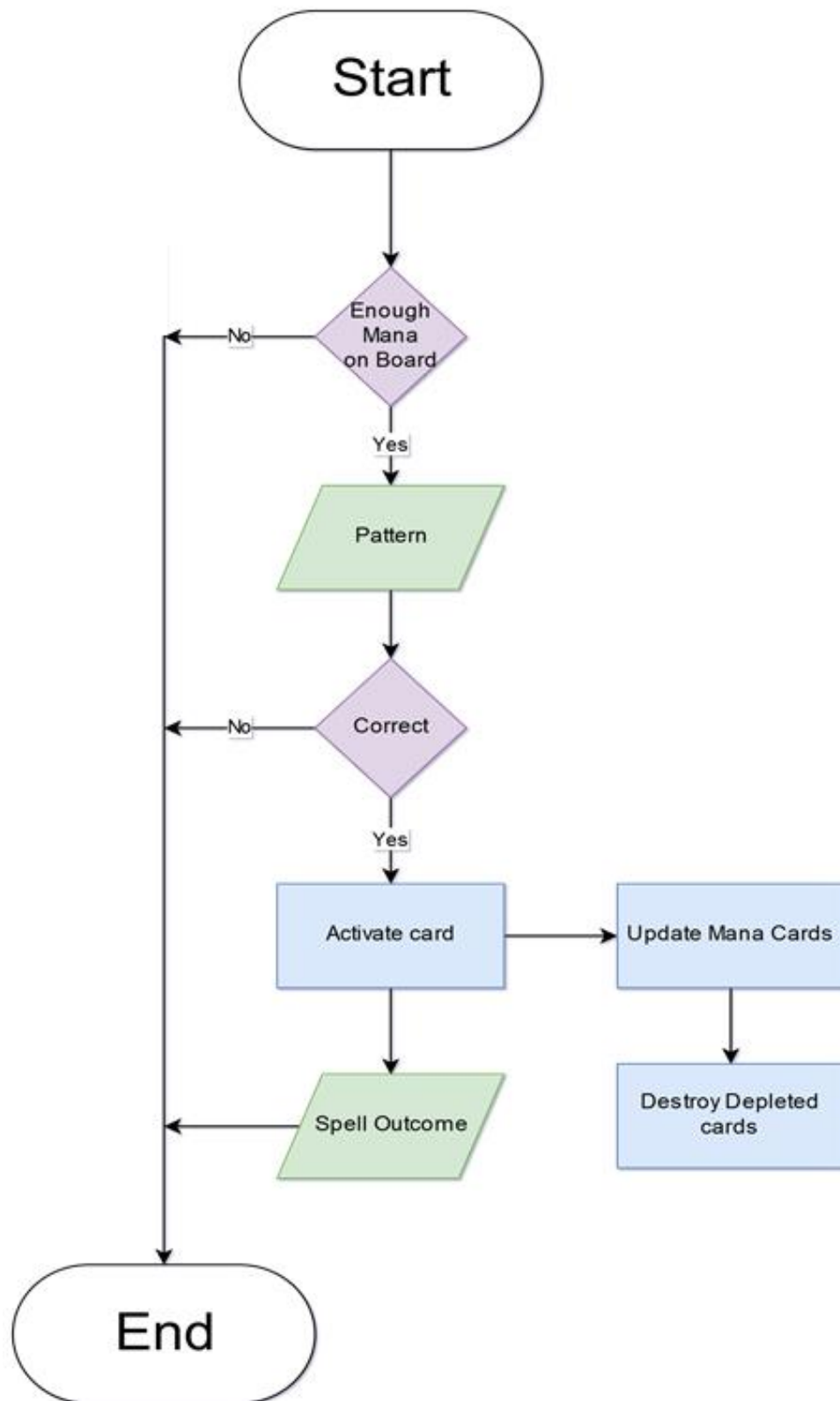
### 2.2.3 Behaviour

The flowcharts follow the test's recommended key. However, purple diamonds extend their usage not only to decisions, but to any conditional branch. Red circles represent combat events or external factors that can suddenly interfere the normal behaviour.

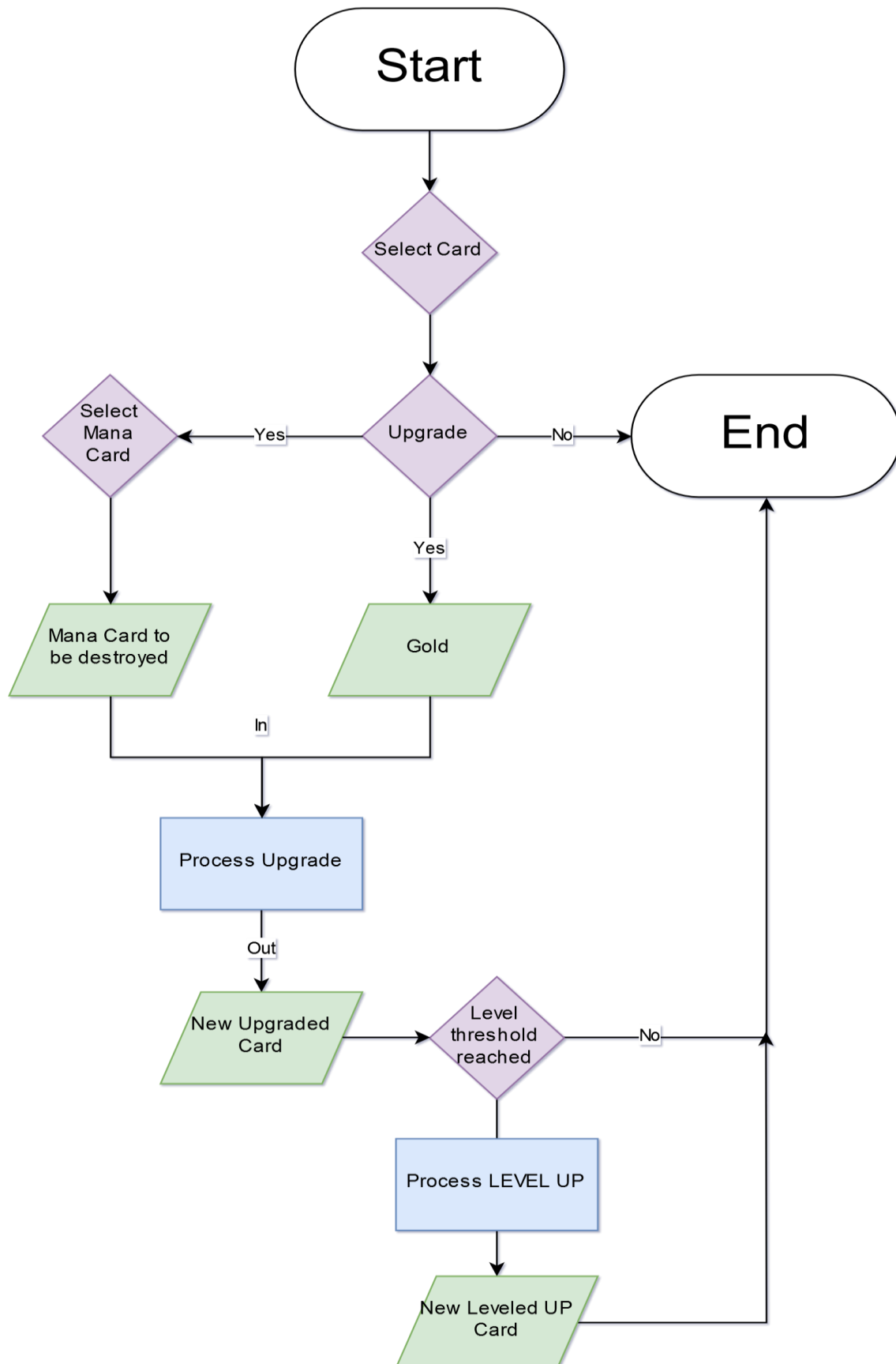
#### Mana Cards – Use Card



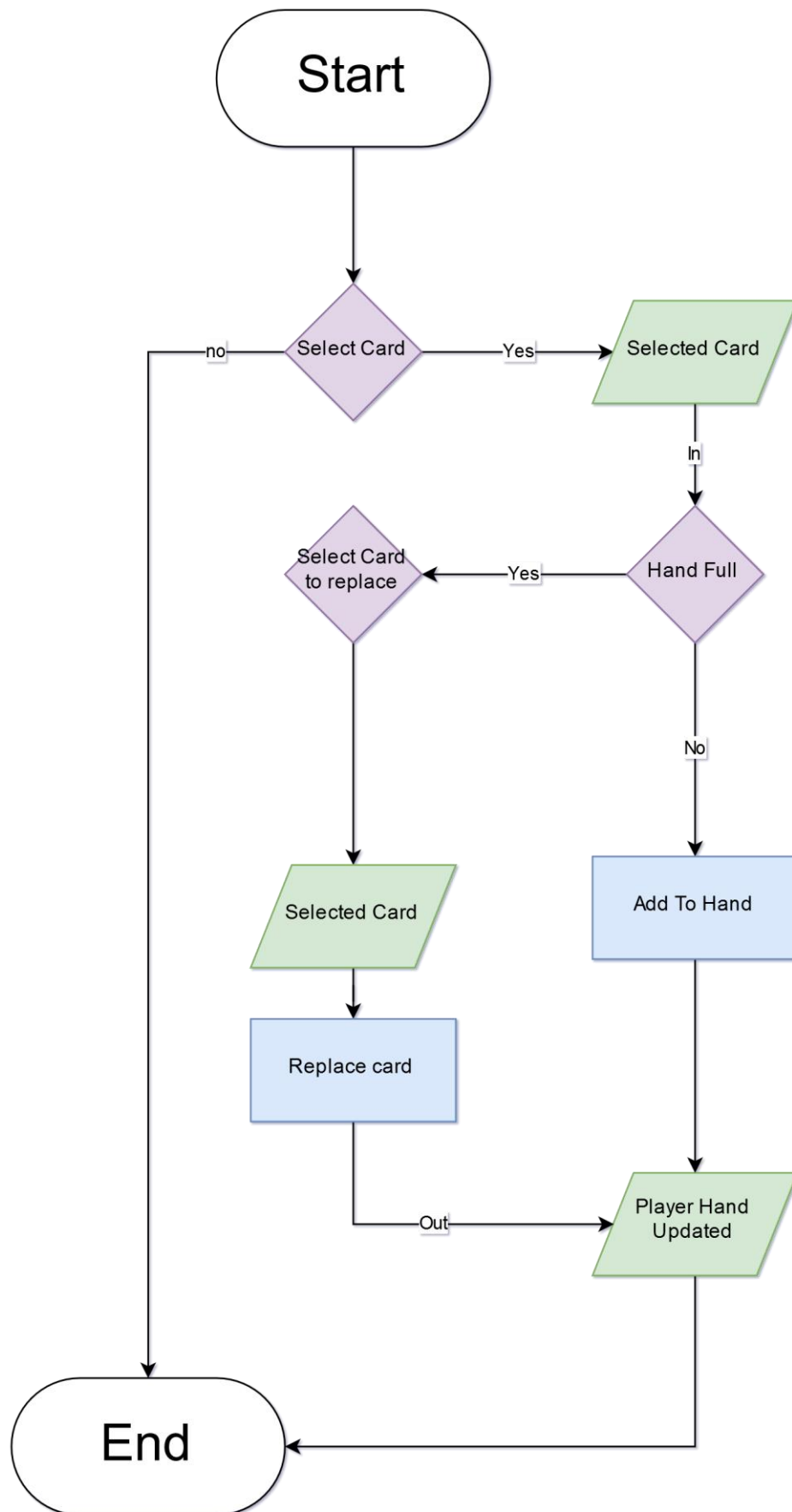


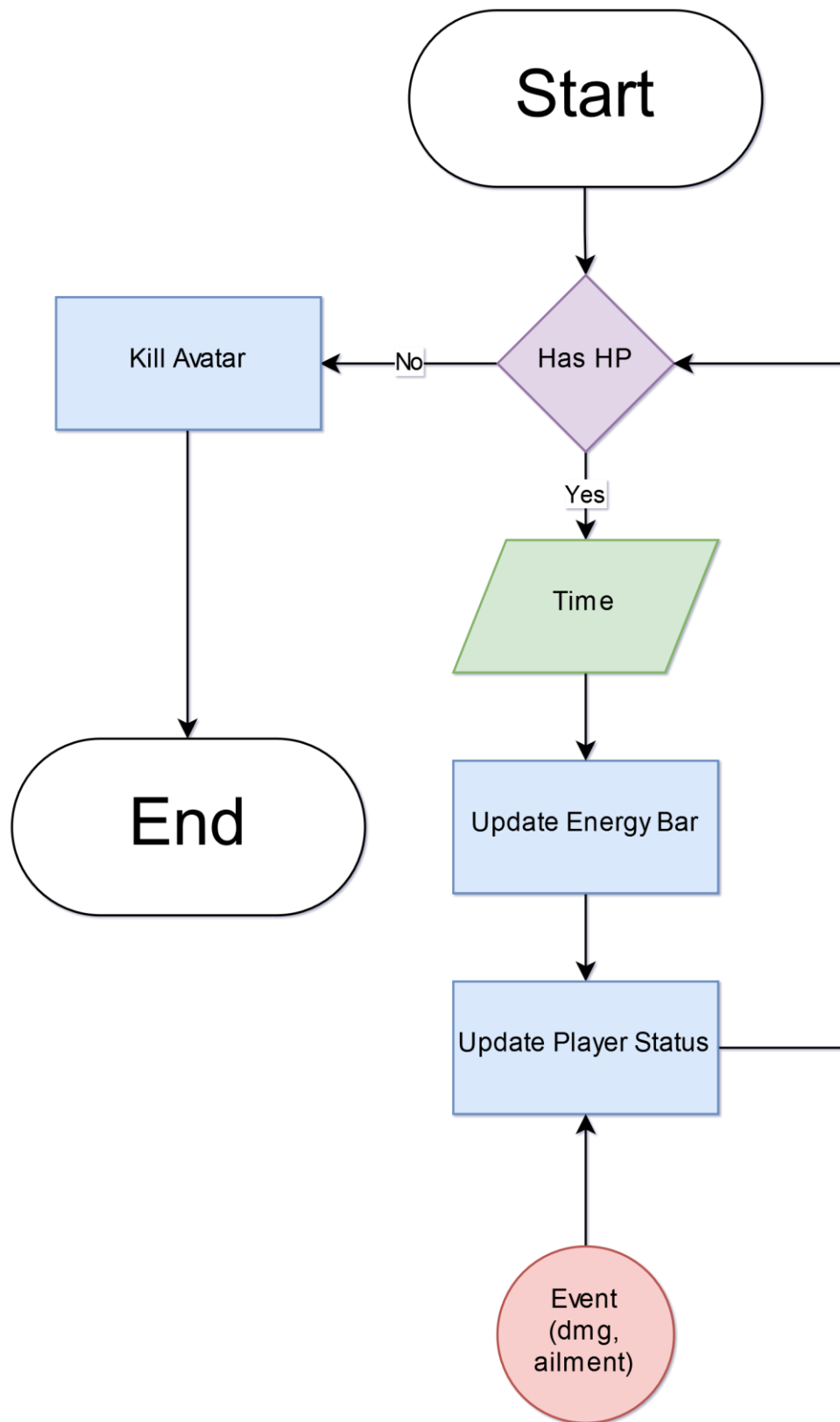


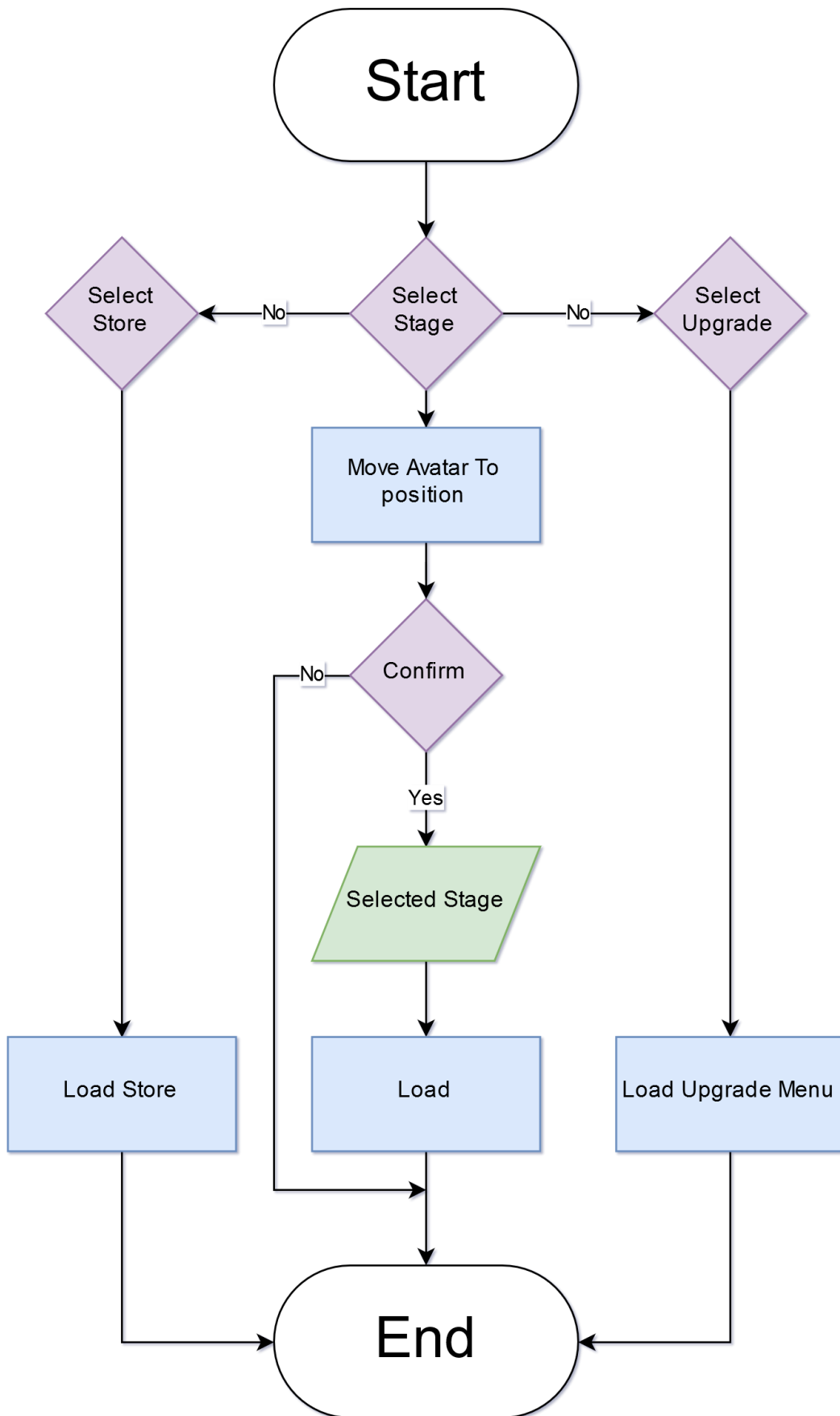


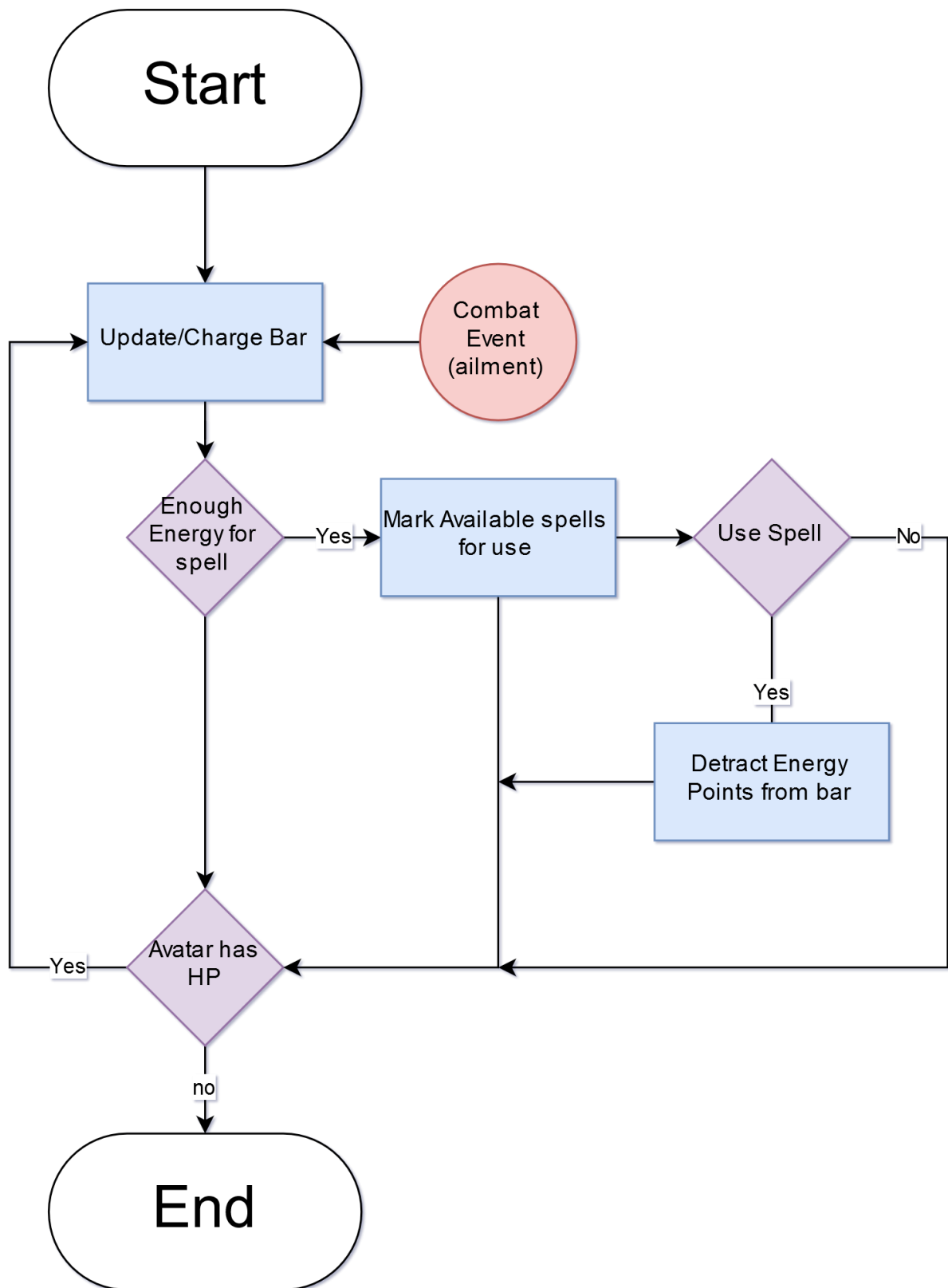


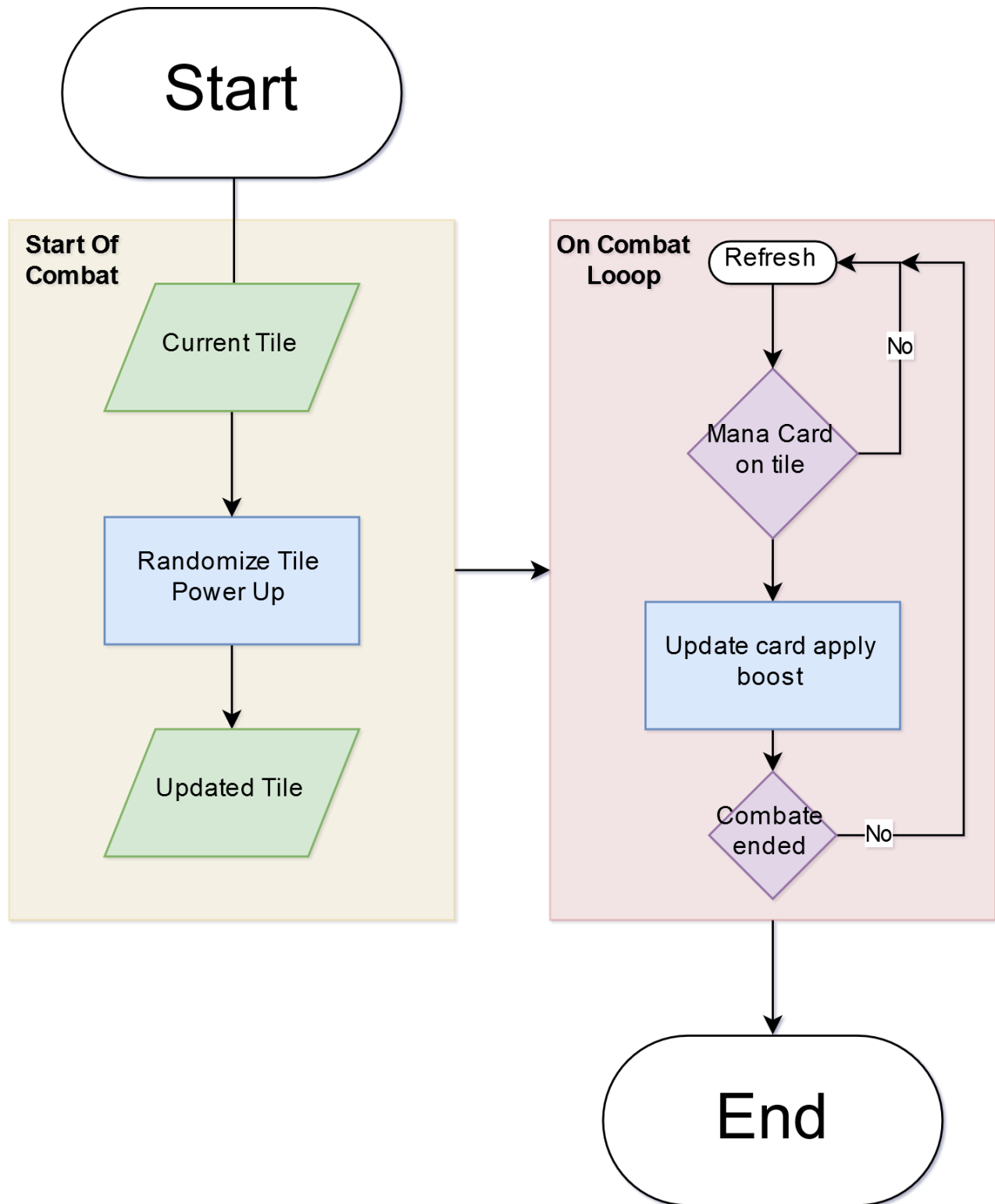
## Hand Card (deck building) selection











## 2.2.4 Entity Instances


### Mana Card

By combining the stats previously presented the scalability of the cards of rather high. Some examples and their utilities (nicknames are not the real names, just for sake of legibility):




Nickname	Level 1-10	Durability	Shield	Type	Meta - Utility
<i>Anchor</i>	3	Permanent	No shield	Contextually relevant. No major advantage from being one or another out of combat context.	A not too powerful card that can be used by both players. Useful if a player has spells that heavily rely on a certain type of cards for spell casting, it's always there to use.
<i>Speedster</i>	5	3 uses	10 seconds		Players have long time before they shield depletes. As it has 3 uses players need to focus on getting at least 2 uses from the card. It enforces rapid spellcasting, rather than thorough planning.
<i>Landmark</i>	1	20 seconds	20 seconds		While the card is not powerful enough to boost attacks, its high shield allows players to fill the board and reduce available tiles for the rival, reducing its offensive capabilities.
<i>Ultimate</i>	8	1 Use	5 seconds		A powerful mana card that greatly boots spells due to high LVL. Of single use and very low shield. Players need to plan and have the board/energy bar prepared to use it. Player should cast fast as possible when the card is placed. Failing to plan can lead to the rival taking advantage of it.

### Spell Card

By combining mana cards, the game can generate as many patterns as needed. With just 3 mana long spells players get 125 different patterns. This varies in many ways. Spells that require distinct mana types may be easier to cast, other requiring specific type patterns (see fireball) will require more attention to deck building as well as board/game managing from the player. Apart from this, spells are ranked in a balanced risk-benefit ratio. Game context, player intentions/strategy as well as skill is what makes each of the spells effective. Hence, they are completely transversal, no spell is (without context) better than the other.

Name	Pattern	DMG 1-100	Energy 1-10	Speed	Effect	Meta - Utility
<i>Storm</i>		30	5	Medium	None	Strong attack with no additional effect. Its relatively high energy cost and medium speed makes it useful to inflict decisive DMG like a finishing blow. Also, by stacking it over an ailed enemy (burn), can cause it to be an interesting option as a second blow attack.



<b>Fireball</b>		10	2	Fast	<b>Burn.</b> Dot. Rival receives dmg each time he/she casts a spell. Duration, 20 seconds.	Rapid low-cost light attack. Good for players who constantly put pressure and try to distract for an upcoming stronger attack. Also, thanks to its low cost, players can cast it many times and get higher chances of inflicting Burn ailment. Pattern makes heavy use of fire mana. Player must have a fire mana focused deck to play this spell efficiently.
<b>Leech</b>		5	3	Slow	<b>Drain.</b> Dot. Player drains 5hp on 5 seconds interval for 20 seconds. Low chance.	Steal Hp from the enemy with a low success rate. Useful if casted using higher level mana cards. Board preparation is important, as said, having suitable high-level cards can turn the balance of the game. Also slow to use, rival player has time to reproduce the pattern and deflect the attack.
<b>Mud</b>		0	5	Fast	<b>Confuse.</b> Reduce rival spell effectiveness for 20 seconds	No damage fast attack. At a relatively high cost, players must first analyse if rival player can cast ailment inflicting spell, and if he/she has enough energy. Good for counter attacks and/or forcing rival player to change strategy in the middle of a game.
<b>Arcane</b>		0	7	Slow	<b>Slow.</b> Slows down rival energy bar recharging speed.	Slow Non-damaging spell. The high cost and slow casting speed asks for thorough preparation. If unleashed, rival player will be in clear disadvantage for 20 seconds. The spell has a very high risk-reward ratio.

## Player

Players can customize their playstyle, not only by using the deck, but by building a character around 3 stats. Some prototypical players would be:

Nickname	Health (1-100)	Energy (1-10)	Ailment Def. (1-10)	Meta - Utility
<b>Endurer</b>	70	5	7	Players who like to play long run matches. They focus on not too heavy attacks as they can resist easily most ailments and dmg. The lower max energy forces players to build low consumption spells deck and make use of ailments (indirect dmg) rather than consistent attacks.
<b>Bullet-sponge</b>	100	6	3	Similar to Endurer but focuses on High HP to survive ailments. Long run matches benefit him/her, but it must

				be cautious with rival effects by using more demanding spells him/herself.
<b>Wasp</b>	50	10	5	Players who can easily concatenate spells without the need of recharging the energy bar. Also, can cast high-energy-consuming spells more consistently. Short matches are best for this build, though he/she can moderately elude ailments.
<b>Balanced</b>	60	7	5	Versatile build that suits any playstyle. Good for novice players. Not specialising mean that the skill cap is much lower than other builds.

## Board Tile

More on section 3. Level Design

Name	Effect	Meta - Utility
<b>Void</b>	Mana cards cannot be manually placed in this tile, or if moved there during gameplay mana card is destroyed.	Generate differently shaped boards. Useful to prevent adjacency between mana cards. If used in conjunction with magnet could potentially serve as a card destroyer.
<b>Destroy</b>	Mana card destroyed after X seconds regardless its durability	Useful if player has a powerful-durable mana card and wants to ensure it will be destroyed quickly before rival player can use it. If used in conjunction with magnet could potentially serve as a card destroyer.
<b>Extend lifespan</b>	Extends a mana cards lifespan	Players with high dependencies to a certain type of mana can use the tile to ensure a spell casting stroke.
<b>Booster</b>	Boosts LVL card put on tile by X	Boosts mana card level one placed. A risky move as it will also be available for the rival. Strategy and thinking ahead is important as it can lead to a "shoot yourself in the foot"situation.
<b>Magnet</b>	Attracts closest mana card next to it (only in horizontal and vertical axes, no diagonals.)	Moves mana cards around the board. Can be used to generate interesting combos of adjacent cards a. Advanced feature that should not be available from the beginning.

## Energy Bar

Energy bar is a separate entity from the player. This is because cards can inflict effects to the player and/or energy bar indistinctly. However, there is a direct relation between the 2, as the max energy is defined in the player stats. Examples of different energy bars are.

Nickname	Health (1-100)	Energy (1-10)	Ailment Def. (1-10)	Meta - Utility
<i>Endurer</i>	70	5	7	Players who like to play long run matches. They focus on not too heavy attacks as they can resist easily most ailments and dmg. The lower max energy forces players to build low consumption spells deck and make use of ailments (indirect dmg) rather than consistent attacks.
<i>Bullet-sponge</i>	100	6	3	Similar to Endurer, but focuses on High hp to survive ailments. Long run matches benefit him/her, but it has to be cautious with rival effects by using more demanding spells him/herself.
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<i>Balanced</i>	60	7	5	Versatile build that suits any playstyle. Good for novice players. Not specialising mean that the skill cap is much lower than other builds.

## 2.3 Game Resources

Resources in the game can be divided in 2 parts. **Combat resources** are momentary. They cannot be stacked or brought out of combat state. **Off combat resources** on the other side can be stacked and spent whenever the player wishes to. They also divide 2 sub categories representing the in-game hard and soft currencies.

Off Combat		
	Spend	Generate
<b>Gold</b> is the soft currency of the game.	<ul style="list-style-type: none"> <li>- Upgrade Mana Cards.</li> <li>- Upgrade Spell Cards.</li> <li>- Buy card packs.</li> </ul>	<ul style="list-style-type: none"> <li>- Playing matches (winning give player more gold)</li> <li>- Exchanging Star Dust for gold.</li> <li>- Daily login prize</li> </ul>
<b>Star Dust</b> is the hard currency of the game	<ul style="list-style-type: none"> <li>- Accelerate Spell Card upgrade.</li> <li>- Give temporal boost to the player deck (increased stats)</li> <li>- Betting in duelling mode</li> </ul>	<ul style="list-style-type: none"> <li>- Buying it for real money.</li> <li>- Winning from duelling mode.</li> <li>- Winning matches in combat lobby.</li> <li>- By logging for 5 days in a row.</li> </ul>

Combat		
	Spend	Generate
<b>Mana cards</b> are needed to cast spells by swiping over them. The pattern in each spell dictates which mana cards must be used. Mana cards also have 2 inherent resources. These momentary resources, while quantifiable, cannot be explicitly generated nor spent. <ul style="list-style-type: none"> <li>- <b>Uses/Time</b>, how long or how many times a mana card can be used.</li> <li>- <b>Shield time</b>, for how long the rival player cannot use the mana card.</li> </ul>	<ul style="list-style-type: none"> <li>- Cast spells in combat.</li> <li>- Bet in duelling mode.</li> <li>- Merge and upgrade other mana cards.</li> <li>- Decompose and generate gold from them.</li> </ul>	<ul style="list-style-type: none"> <li>- Opening card packs.</li> <li>- Winning duels where star dust was bet.</li> <li>- By merging 2 other mana cards.</li> </ul>
<b>Energy</b> serves as a game pacing tool, dictating the tempo on how many attacks can each of the players perform. It is needed to cast spells.	<ul style="list-style-type: none"> <li>- Use to cast spells.</li> <li>- Use to position Mana cards</li> </ul>	<ul style="list-style-type: none"> <li>- Auto generates by passing time.</li> </ul>

**Experience**

Serves to level up players and mark their status in the competitive community.

- Access higher level lobbies to engage in combat with high level players.

- By playing matches
- Winners earn more
- Can be boosted using star dust.

## 2.4 Player Actions

### 2.4.1 Off Combat

#### Upgrading – Currency Management

##### Upgrade Mana Card

- Spend gold in upgrading cards.
- Merge identical Mana cards to greatly upgrade.

##### Upgrade Spell Card

- Spend soft currency gold to upgrade spells which takes time.
- Accelerate this time by spending hard currency Star Dust.

##### Prepare Hand

- Players can select 3 spell cards to be used in combat
- Players can select which Type of Mana cards will be drawn into the players hand in combat.

##### Buy Card Pack

- Players can buy card packs by spending the ingame soft currency, gold.

##### Get rewards

- By completing challenges players can unlock prizes in the form of star dust (e.g.: win 10 matches)

##### Buy Star Dust

- Players can buy star dust with real money.
- Players can exchange star dust for gold

##### Get Booster

- Temporary boost player/cards stats by exchanging it for star dust.

#### Navigation

From the main menu/map players can tap on the different options and locations to access the content.

##### Select Stage

- Players can tap on the stage they want to tackle on.

### Select Location

- Players can tap on the location they want to enter; card/deck manager, store, combat lobby.

### Match Making

Players can, aside from main game quests, enter a competitive lobby where they can engage combat with other players.

### Lobby Selection

- Players can enter a combat lobby. Improve their rankings and enter championships.

### Duelling

- Players can select an opponent and duel them.
- Players must bet: put card(s), gold or/and dust in a lot.

### 2.4.2 Combat

Combat state is where action happens. Players engage and attack each other until one defeats the other by depleting its HP bar. During combat 3 micro states can be identified. Players can position mana cards on the board and use them to cast spells by swiping over them. They can also repel rival spells.

### Position mana card

- Players cannot perform any other action until they release the screen hold.
  - On top of an empty tile (places mana card).
  - Elsewhere (cancels mana positioning).
  - Adjacent mana cards of same Type sum their levels and contribute to the final calculation of the spell (dmg, effect)

### Cast Spell

- Players connect in a determined pattern the mana cards in the board.



- If correct, the system activates the corresponding spell.
- Casting takes time, the longer the pattern the longer the time.
- Mana cards have limited uses.
- Mana cards will disappear from the board once their lifespan is completed
- Mana card cannot disappear BEFORE players ends casting his/her spell.

### **Repel Spell**

- While rival spell is being casted.
- Players can reproduce rival's pattern to effectively cancel the rival spell being casted.
  - Once rival spell casting is complete, players cannot repel it.

### **Get Rewards**

- Players can get the rewards after the combat has ended.
- Players always get gold. Winning players earn more.
- Players always get XP to improve their ranks in competitive mode.
- If in duel, winning players get the lot, whatever it is.

## 2.5 Game Loop

The game consists of 3 macro states/loops that conform the game loop. It's a common system used in F2P games. Combating (either in competitive or quest mode), generates rewards. These rewards can also be generated by appointment mechanics over time. The rewards are functional resources. These resources can be used to upgrade players deck (cards), getting temporal boosts or buying card packs.

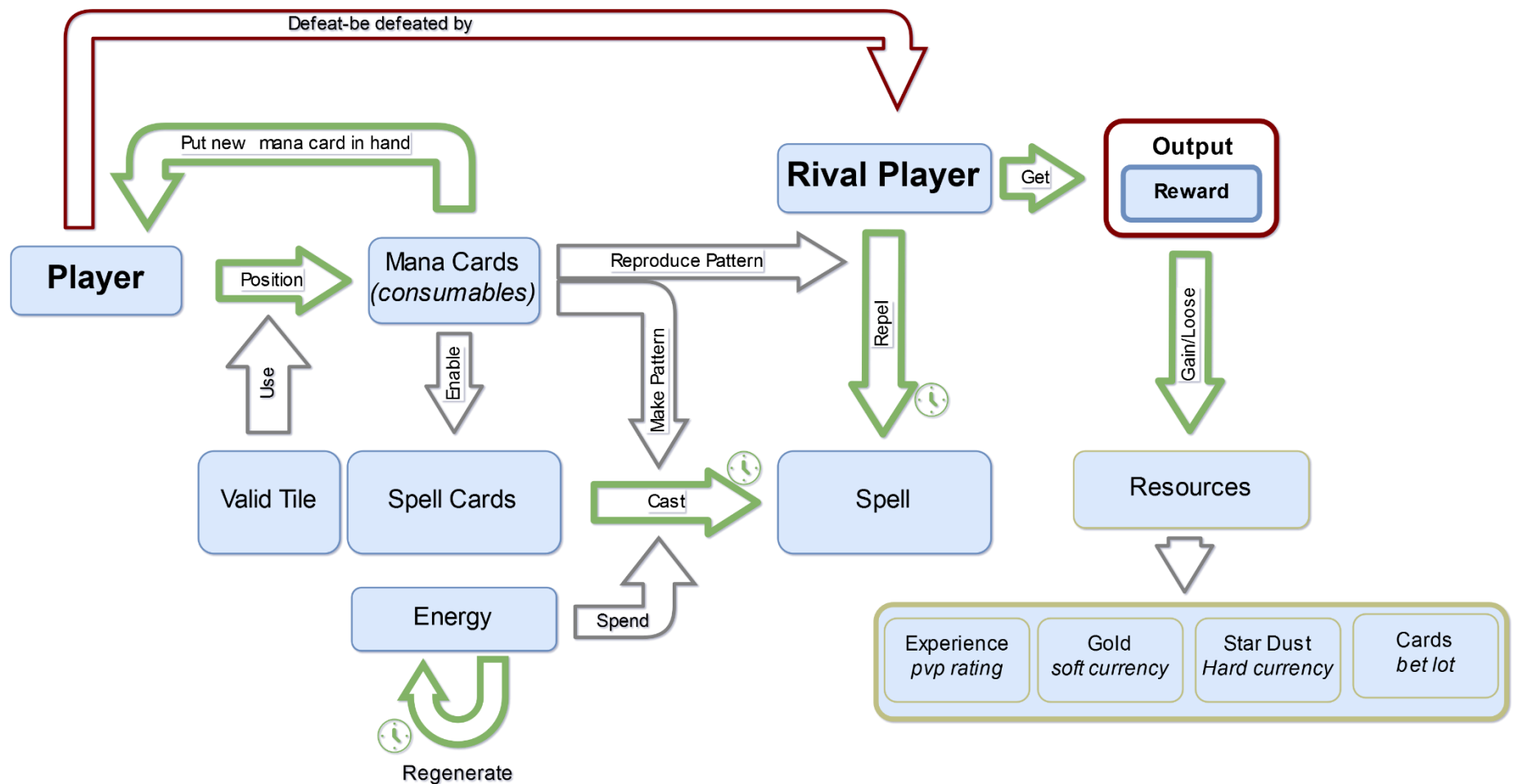


### 2.5.1 Combat Loop

For clarity, I have tried to reproduce the representation of the one from the test.

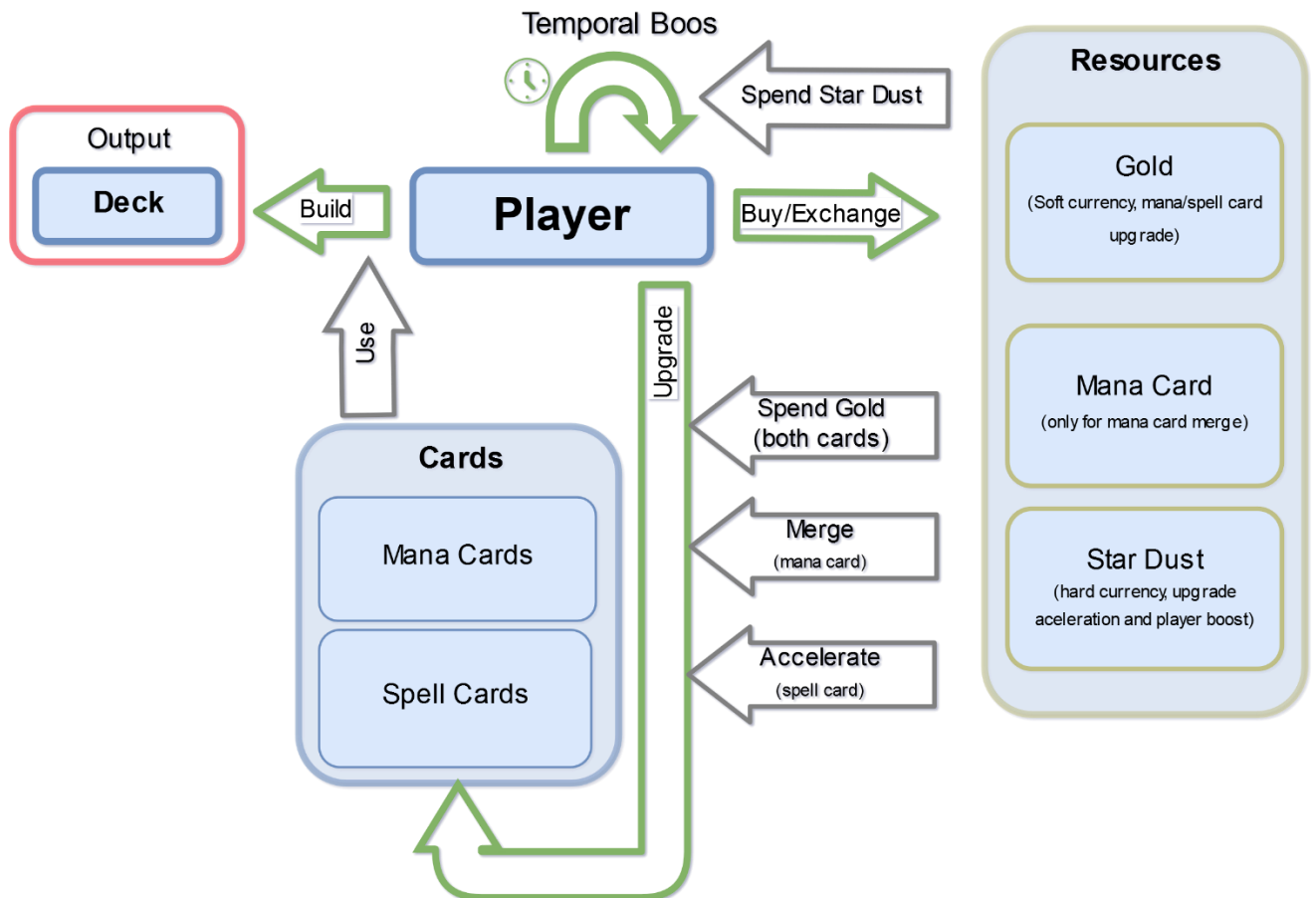
Red coloured arrows and boxes represent outputs and its triggers.

Whether the player is in quest or competitive mode, the combat loop remains the same. All resources, efforts of the player are focused-on spell casting from an offensive perspective. On the other side, players have the chance to repel rival spells too. The Loop generates an output, in the form of a reward. This output is then broken into resources that can be fed into the upgrade loop.



### 2.5.2 Upgrade Loop

The loop feeds from resources. Players can use them to upgrade different aspects of their build (cards and stats) by spending currency and other cards. Not every upgradable element feed with the same resource. The loop produces an output, a playable deck, that can be fed into the combat loop again.



### 3. Level Design

#### 3.1 Key

The following icons represent tiles and their (provisional) visual representation on the game board. Not all are used\*



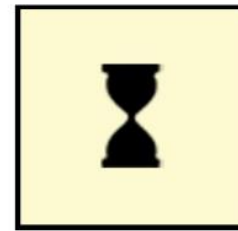
**Regular Tile:** Does not affect positioned mana, nor spell.



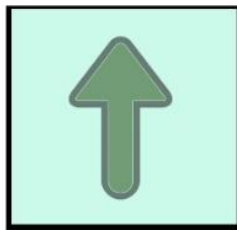
**Void Tile:** Mana card cannot be positioned here. If mana card moved to void tile, mana card is destroyed.



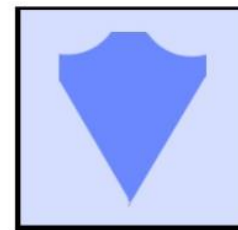
**Magnet Tile:** Attracts closest mana card when player positions mana card in the tile.



**Durability Tile:** Rises mana cards durability.



**Boost Tile:** Boost mana card's level.



**Shield Tile:** Rises mana cards shield.



**Root Tile:** Makes mana card permanent.

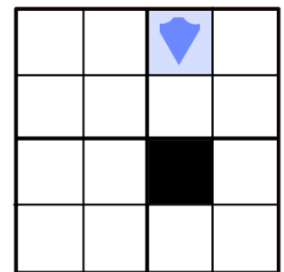
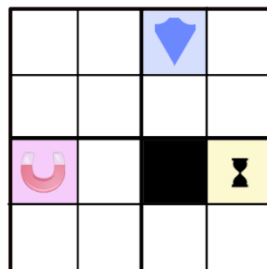
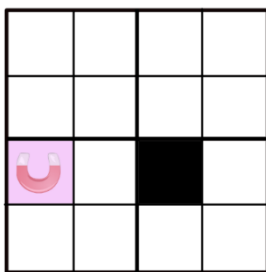
### 3.2 Level Schematic

The game is played in a board. This board is either 4x3 or 4x4. The game alternates between the 2 board types in quest mode, and it can be set by players in competitive mode.

As is, the game lacks static level design. Instead, each of the stages of the quest mode presents the same board at the start of the game but evolves as players interact with it. The system reads player interactions and board state. Then, an algorithm decides where and when to put the next Special tile.

As explained, special tiles apply their effect after a mana card is positioned on them. Once the mana card is destroyed, tile return to a regular tile, without any boost. These boosts are presented to the player along stages of the quest mode.

The following 3 schematics show a glimpse and basics on the general idea, section 3.3 deepens in the possibilities and emergent gameplay.



### 3.3 Interest Points

The following presents the 3 states of the board above, and how players might interpret them.

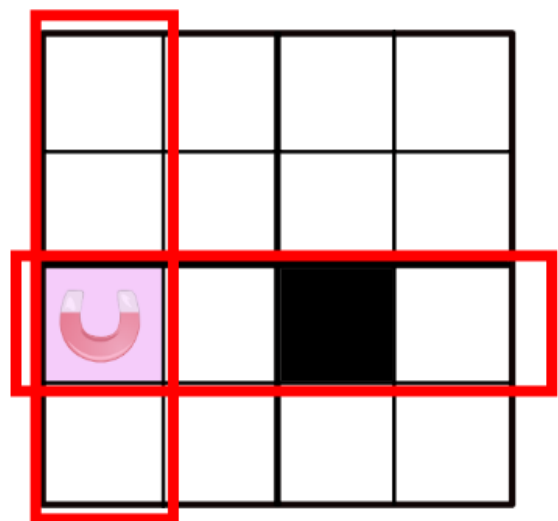
#### *Board State A*

There are 2 points of interest in the board at the start of the game. They both generate expectations and a more reflexive approach towards them:

**Magnet** compromises the horizontal and vertical space.

Playing a mana card directly in the magnet would have no effect while there are no other cards in the area represented in red.

Players need to analyse and think ahead, how the magnet can be of use later, and, before the rival uses it.



- e.g.: Pull a mana card towards the magnet
- e.g.: Pull a mana card towards the void
- e.g.: Pull a mana card off a special tile

**Void:** Players cannot position mana cards on it. *Void* tiles limit the adjacency of surrounding tiles. In conjunction with a *magnet*, players can potentially destroy mana cards by pulling them towards the void.

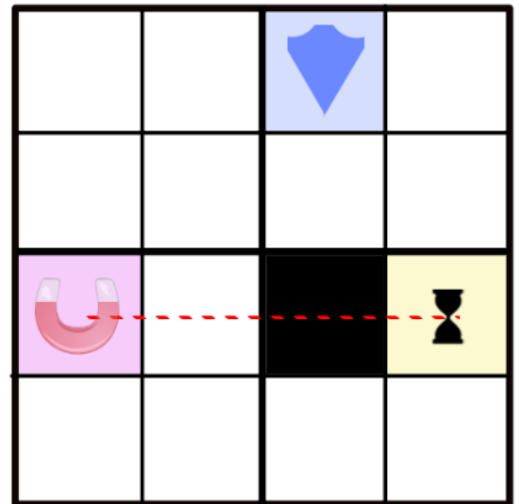
### Board State B

Board presents a more complex situation with intertwined points of interest:

**Durability boost** is aligned with the *void* and magnet. This creates an indirect relation between the 3.

Players want to use the durability boost, but don't want the rival player to use the magnet, and as a result, see their mana card destroyed by the void.

**Shield** seems the obvious and safest boost to take. It is so for both players, the fastest will get the boost. Rapid reflexes are rewarded.



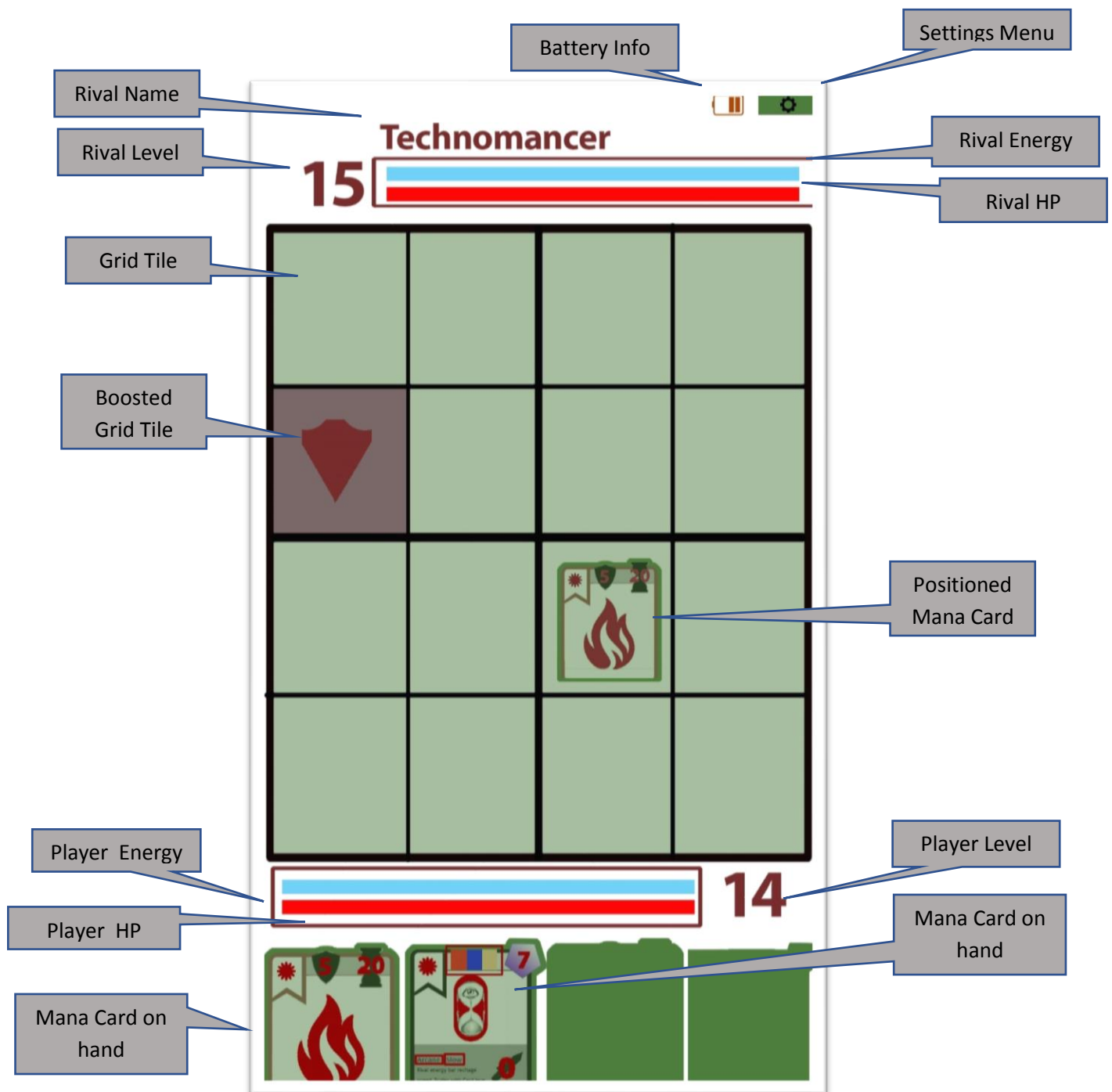


## 4. Game Navigation Structure

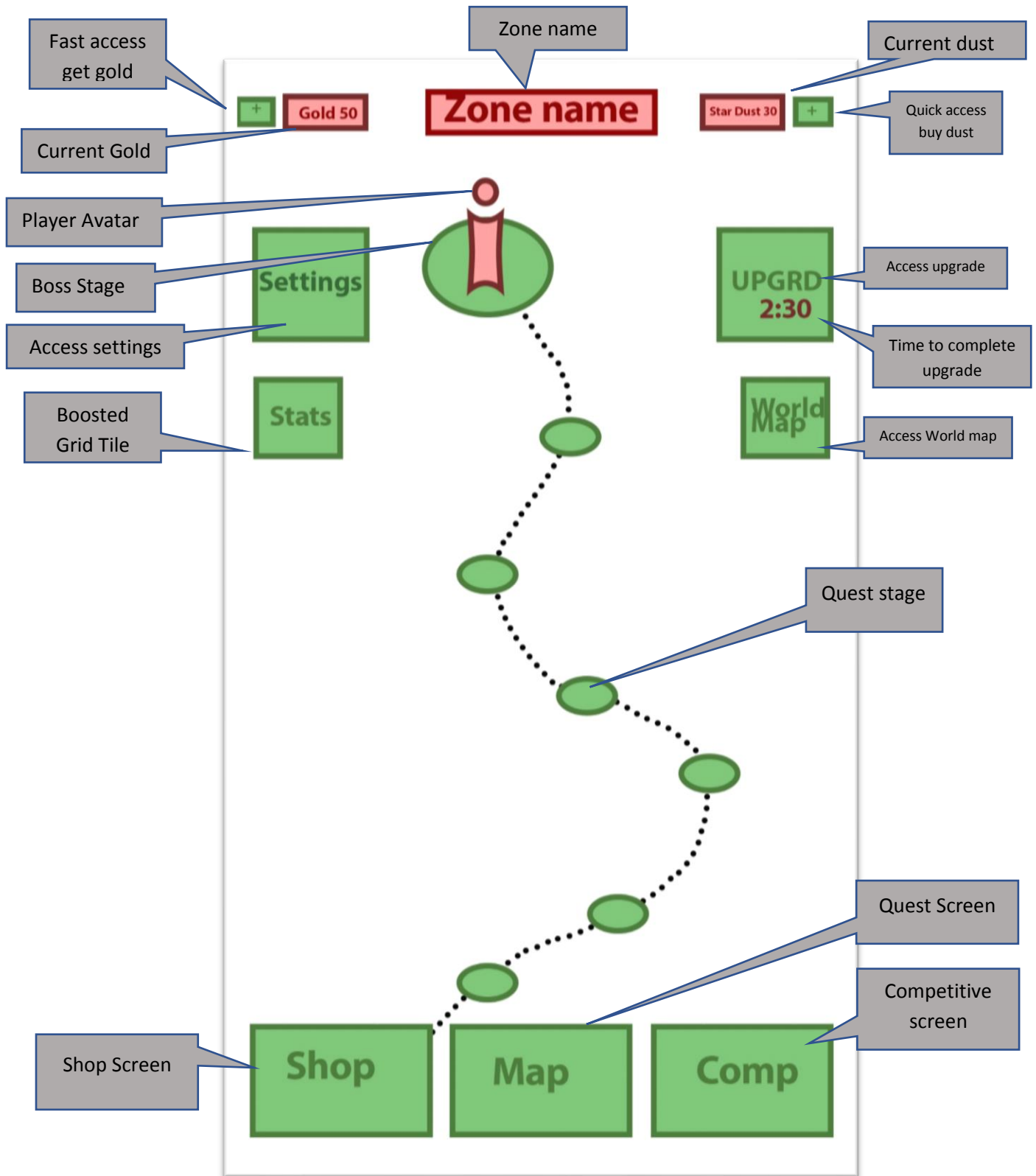
### 4.1 Game Screens, Screen Fakes and UI

There are 5 main screens:

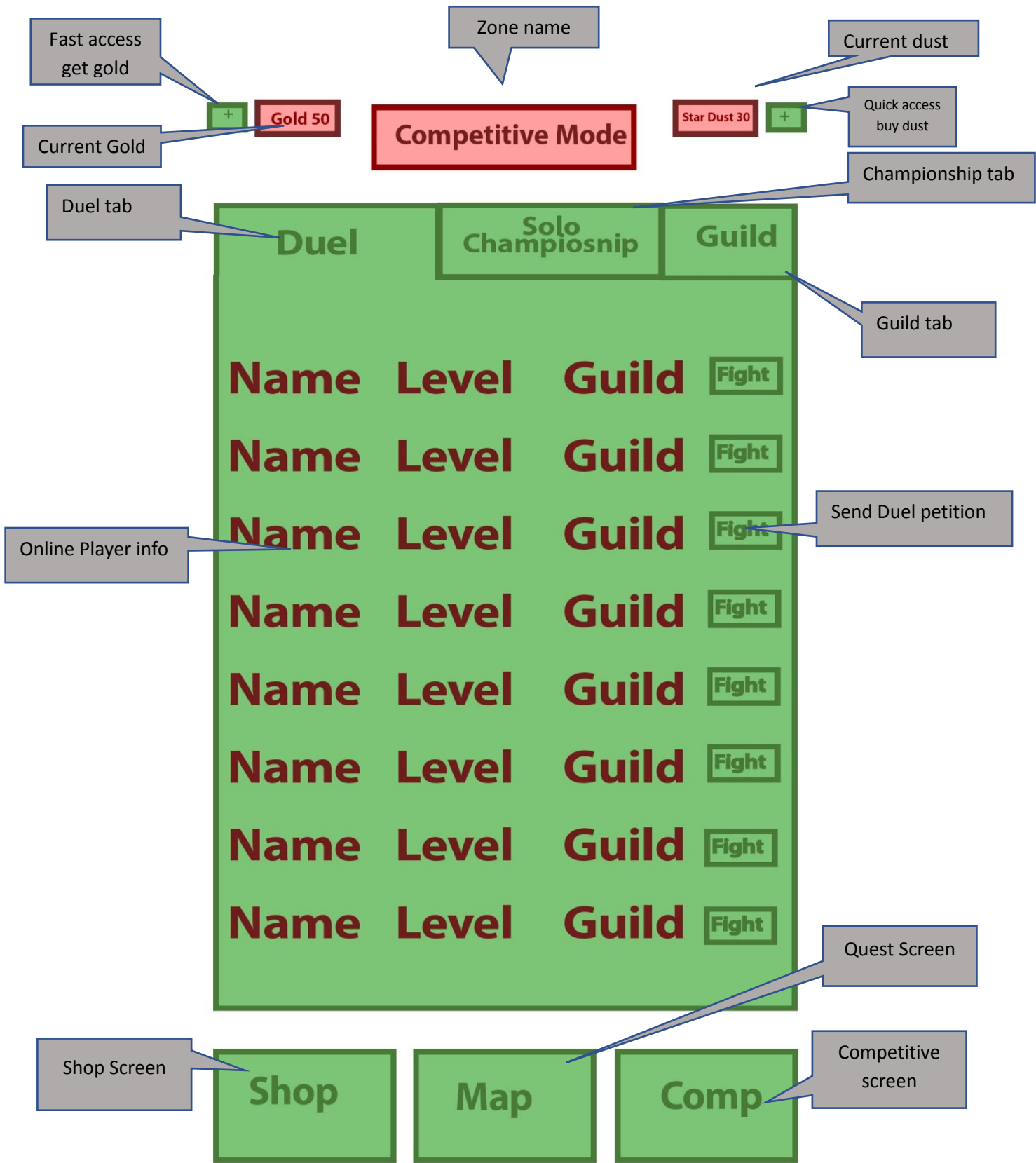
**Combat screen** is where the action phase occurs. Players engage in combat by using their custom card decks. Here players can cast spells to defeat their rival by cleverly and skilfully using mana cards and spells. Only relevant information for the combat is shown.



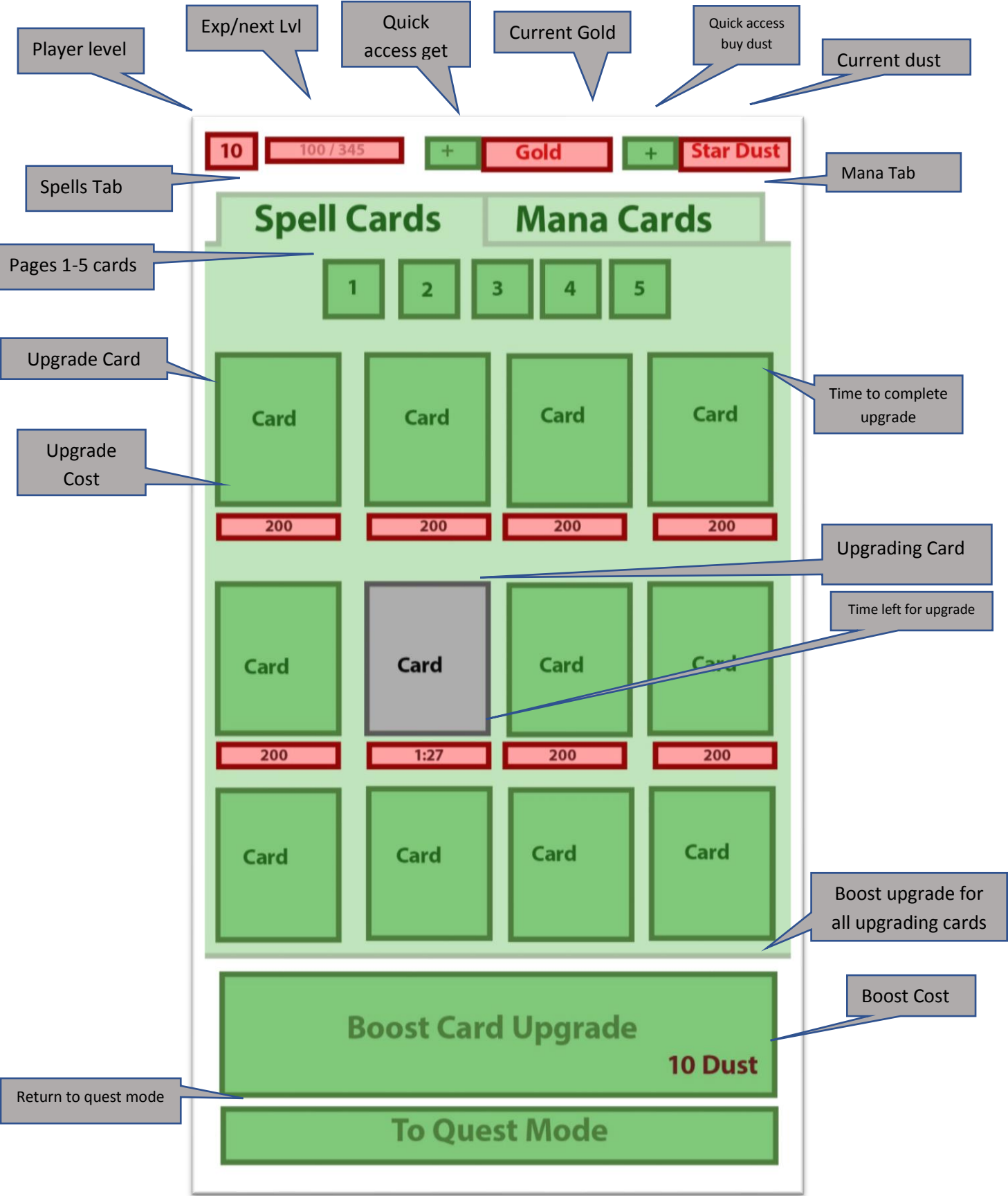
**Quest Mode Screen** is where the getaway to other screens of the game. Also, it shows the roadmap of stages player must defeat in order to progress.



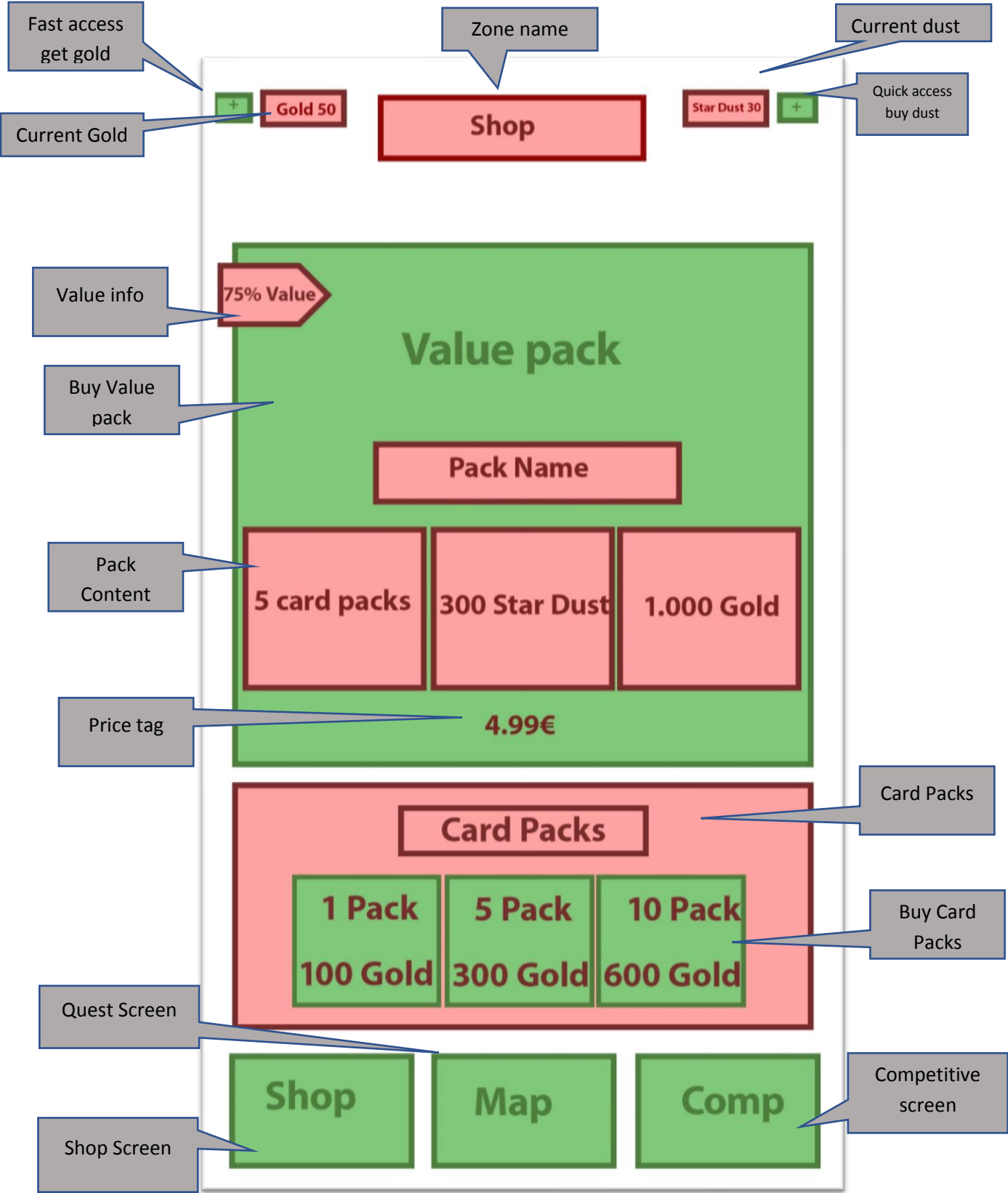
**Competitive (duel) Screen** players can sign into championships (solo or guild) or duel other players. The can navigate by tapping the tabs in the upper area. Buttons for main screens are at the bottom. Duelling shows players with similar levels that are currently online. Sending duel invitation is as easy as tapping the fight button on each row. Once done, players receive a notification. If they accept, they get into the betting scree, which leads to a combat.



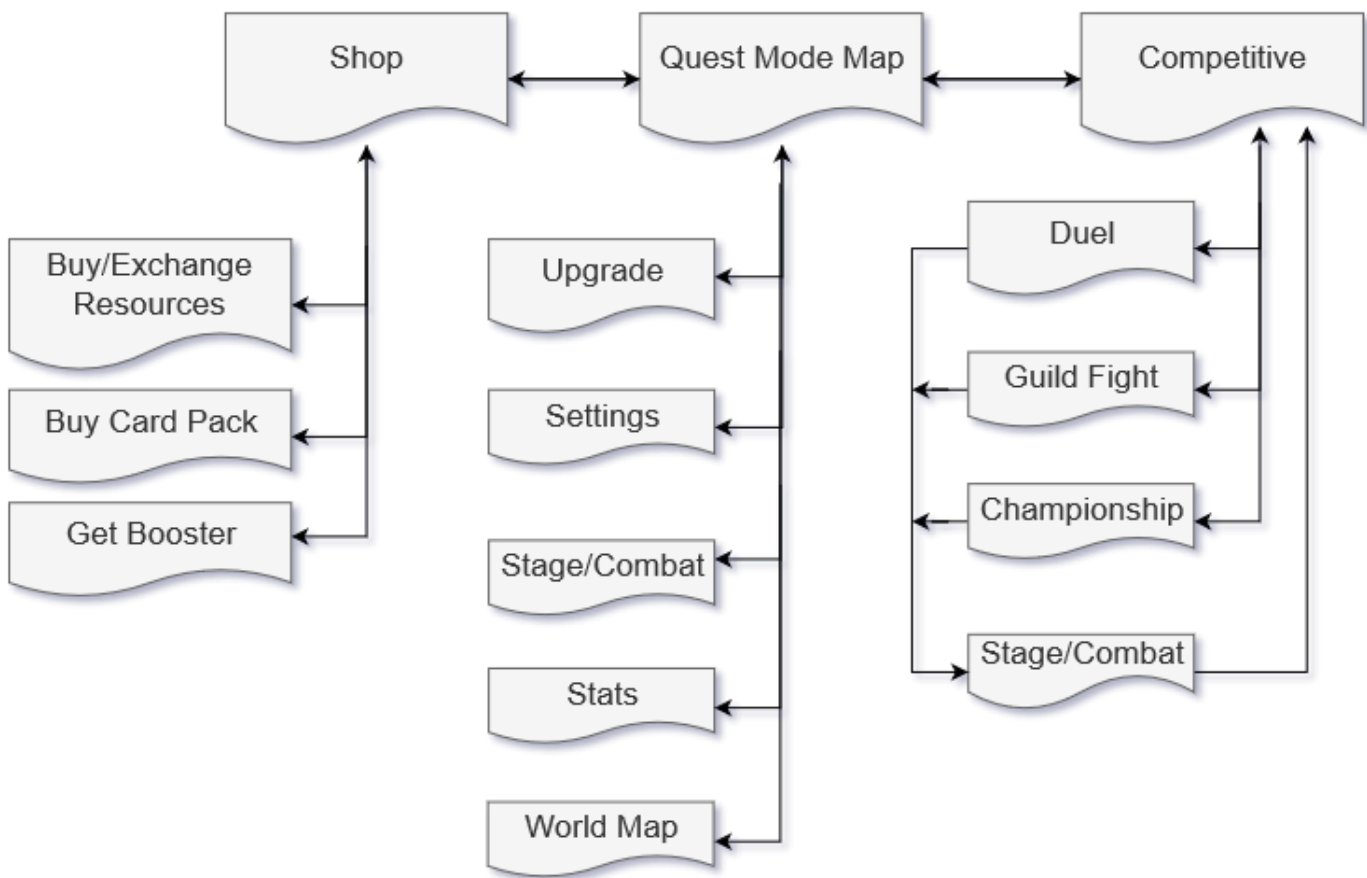
**Upgrade Screen** Players can upgrade either mana cards or spell cards in this scree. To do so they must spend resources.



**Shop Screen** allows players get in game currency and exchange it for resources. Players are first presented with a value pack that can be bought with real money at the top of the shop. By scrolling down, players can access all available options: buy card packs, buy star dust and exchange star dust for gold.



## 4.2 Navigation Flow



## 5. Game Goals

### 5.1 Progression Tools

Players can progress in three main ways

#### 5.1.1 Level Up - Rating

Players level up by gaining experience from combats. This experience is rewarded no matter if the player loses the match. The level indicates the player's status and skill/mastery. In a practice, it is used to give access to competitive modes ranked system. Here, combat lobbies and championships are divided in Ranks, players with higher level can access higher ranked championship/rivals. Also, players can duel higher ranked rivals. The higher the rank the better the reward.

#### 5.1.2 Upgrade Cards - Equipment

Players can upgrade their cards by spending resources on them. Having better cards serves a single purpose, increasing the chance to win by having a more powerful deck. This applies to quest mode's stages as well as competitive modes championship/duels.

### *5.1.3 Unlock Levels - Playthrough*

The stages get more and more complex as the players progresses through the quest mode. As he/she beats stages, more challenges and stages are unlocked. More importantly it unlocks core gameplay elements by gradually presenting new board tile boosts and spell cards.

## 5.2 Short Term Goals

### **Instant Stimulus Stage**

- Beat next stage in quest mode.
- Get "appointment based" rewards (e.g.: daily login).
- Get combat rewards.
- Upgrade cards.
- Buy packs, discover new spells.
- Beat rivals in competitive mode.

## 5.3 Mid Term Goals

### **Mastering Stage**

- Upgrade cards and then Max them Up.
- Get all spell cards.
- Create a custom deck.
- Know all systems mechanics (e.g.: boosts and spells).
- Beat quest mode.
- Rank up in competitive mode, reach max level championships.

## 5.4 Endgame Goals

### **Competitive Stage**

- Create a customized efficient deck, and its variants.
- Win most powerful and special cards winning championships.
- Be ranked top in highest level championships.
- Duel and win highest ranked players.

## 6. Freemium Features

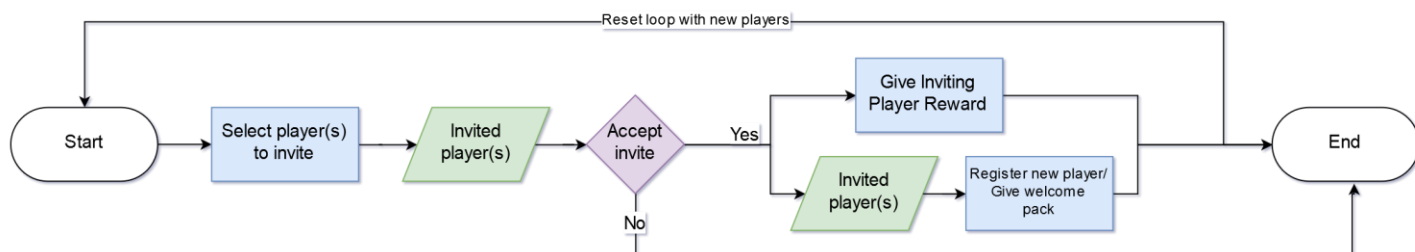
### 6.1 Virality

The tools for virality focus on generating player base and expanding it using social interactions. These interactions will primarily be through real-life friends and can take advantage from common social networks like Google and Facebook. The important part is getting a K-factor which allows for an initial rapid spread of the game.

#### *Invite System*

Players can invite their contacts into the game. This is beneficial for the 3 parts involved (player, invited player and game's player-base).

- i. Player creates account/logs in using one of the supported social networks.
- ii. Player get prompted to invite friends. Prompt show which rewards he/she would get from each player creating an account via invitation. The more, the better the reward
  - a. With certain probability after a combat
  - b. With certain probability when log in
- iii. Player select friends and sends invitations
- iv. Invited players receive a notification in their social network.
  - a. Who sent the invitation
  - b. Which are the benefits/rewards from getting into the game via invitation. A welcome pack that cannot be get otherwise.
- v. Invitation response
  - a. If positive, both Inviter and invited get their rewards.
  - b. If negative, the player will be off the suggested for a determined time (no spamming). Therefore, no reward is achieved.
- vi. Loop is restarted.

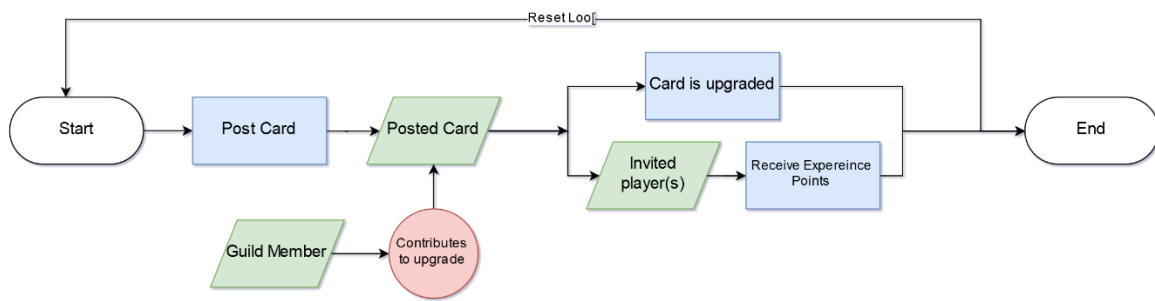




## Upgrade Help System

In competitive players can play solo or join a guild. By joining one they get many benefits, like competing in guild leagues. Also, to promote cooperation, players can let guild member help with the upgrade by donating resources. By doing so they receive experience points. A stronger card for an individual also means an stronger guild.

- i. Player joins guild
- ii. Player posts card to be upgraded.
- iii. Guild members can access the profile of each of the other members
- iv. Players can tap on “upgrade” button on other player’s posted cards.
  - a. Each player can only contribute once a day.
- v. Player gets experience from donating/contributing to the upgrade of the card.



## Temporal Boost from Guild

If players fail a determined number of times on one of the stages from the quest mode, a prompt message appears asking the player whether he/she wants to ask for help.

- i. Player answers yes
- ii. Guild members receive a notification once the log on.
- iii. Guild members can respond to the notification.
  - a. If yes, player gets the boost (e.g.: hp and/or energy recharge speed). Guild member get experience points.
  - b. If no, nothing happens.

## 6.2 Retention

The tools for retention focus on making the existing player base engage with other unknown players. These interactions will primarily be focused on 2 aspects: competitive play and team cooperation. Another important thing is to expand the spectrum of possibilities for experienced players. This can be done by refreshing the experience every so often with content (e.g.: new cards) or new game modes.

## *Seasons*

The game launches with an initial pool of cards and mana types. The general idea is to mirror real-life card games. It is as much as “combat” simulation with cards as it is a collecting game. Over the course of a year, just like real-life card games, the game expands itself regularly by introducing new set of cards. This makes the spectrum of possibilities wider with every expansion. One of the key concepts behind the season system is to generate/search for new meta-gameplay with every expansion. This keeps the community alive and active. Also, competitive mode can only be played with cards from the last 4 seasons (there are 3 seasons per year).

## *Upgrade Cards*

Upgrading cards uses appointment mechanics. Meaning that the upgrades are not instant, they take time. This time is longer the higher the level of the card. Players who start an upgrade will set a countdown. When the countdown ends, they will receive a notification that the card is upgraded. This is good as it can force an interesting loop:

Players start the game session, play and get enough resources to upgrade a card. After a couple of matches, players can decide to upgrade another card, and potentially end their play session. This ending of the session is tightly linked with the next. Player knows that next time he/she logs in the card will be updated, and as a result, his/her deck will be more powerful. As the cycle loops, players get engaged with new content.

## *Regular championships*

The game's ranking system allows players to get into certain championships. Players can level up by gaining experience points. However, championships, in the form of leagues and knock-out rounds are held every week. Winners of these temporary championships get a huge amount of experience, enough to get into the next tier of championships. Also, and as a reward, players can get resources like new spell cards, or gold to upgrade their cards.

## *Guilds System – community-based improvement*

As mentioned before, players can get into a guild and benefit from the help of their colleagues. This is requiring almost no compromise from the player, as it is a win-win situation always. To solve this and enforce “real” cooperation, aside from individual level system, guilds also level up.

Guilds can participate as a team in championships and rank up their level. For this, players within a guild can interchange cards prior to a tournament, to better suit the needs of each of the competitor. Winning championships as a team allows to compete in higher ranked leagues, grant their participants rewards (gold, experience).

## *Appointment System*

Players get rewards for regularly logging in the game and/or fulfilling certain actions:

- Daily login
- Weekly championship
- Weekly donation.
- Weekly quest (e.g.: win 5 competitive matches in a row)

### 6.3 Monetization

The goal is to give the player enough free gameplay, especially in the viralization stage, so that he/she can get a good feel of the game by investing hours in it. Players need to be able to experience the game without the monetization constraints. This can be done by making low difficulty stages where players learn to play, have fun, but do not have much trouble to progress. After this stage is completed, and players are genuinely interested in the game, they will proactively look for ways to improve their skills. This is where monetization tools come to play.

#### *Buy hard currency*

Players can directly buy hard currency, star dust. In different packs with fixed and common price tags (2.99, 4.99, 9.99 19.99, 49.99, 99.99). The higher the cost, the better the value. This hard currency can in change be invested either in accelerating card upgrades, exchanging it for gold, duelling betting system or reducing the cooldown of each of the quest mode's stages if failed to win.

#### *Buy card packs*

Card packs can be bought individually using in-game currency gold. However, better value options (5, 10, 50 packs) are only available by purchasing them with real money. The packs ensure that at least one of the cards will be a high level one.

#### *New season Pre-order*

Players can anticipate and buy at a better value a set containing card packs for the new season as well as hard currency. Players ensure to have almost every card for the new season before the non-paying users. This is a strategical advantage as paying users can generate/understand the new meta-game first.

#### *Arcade Mode*

Players can get into arcade mode, which costs gold or a small amount of real money. This consists on a sequence of consecutive matches with the same deck. Players can at the end of each match:

- Continue fighting (potential rewards grow exponentially)
- Retreat (and collect the rewards).
- If loose, all rewards are lost.

### *Deluxe Championships*

Monthly championship. These involve high level rewards and are accessible via 2 ways. For example, in a tournament consisting of 120 players in a knockout system. There would be:

- 75% of participants are top 90 players. They pay no inscription fee.
- 25% are sub 90 ranked players. In order of rank, an invitation is sent to participate to each of the players, the inscription fee (in gold) would be X. The process is repeated until the 30 seats are filled.

## 7. Bonus Deliverables

Mechanics prototype