

# ALEXANDER RYAN SHEPHERD

## MANA SURGE

### GAME DESCRIPTION

Mana Surge is a fantasy-based strategy board game which pits players against one another. Ultimately, only one player can win a match of Mana Surge by being the first to collect 10 mana points. Mana points can be collected from the mana pool which is located at the center of the game board. Each turn, players may spawn troop tokens, move troop tokens, activate abilities, attack the troops of other players, and collect mana points. The game board is made up of 90 hex tiles which may be traversed by troop tokens. Combat modifier tiles will modify a troop token's combat stats while the troop token is placed upon the tile. Other tiles will grant player's special abilities while a troop token is placed upon on them, such as extra troop spawns and extra actions during a player's turn.

### Glossary

#### Action Points

Action points represent the amount of actions which may be performed during a player's turn. All players begin the game with one action point per turn.

#### Combat Modifier

A combat modifier is applied to troop token which is placed upon a combat modifier tile. The troop tokens combat stats are modified according the combat modifier that is on the tile.

#### Combat Phase

This phase is the phase after the move phase. Players may use troop token to attack adjacent opposition troop tokens during this phase.

#### End Phase

This is the last phase of a player's turn. If a player has a troop token on the Mana Pool, then he or she may collect a mana point during this phase.

## **Mana Point**

A mana point is collected from the Mana Pool which is located at the center of the game board. Players win a standard game or Mana Surge by collecting 10 mana points.

## **Mana Pool**

The Mana Pool is located at the center of the game board. It is represented by the center hex-tile. Mana points are collected from the Mana Pool.

## **Move Phase**

The move phase is the phase after the start phase. Players may move his or her troops during this phase only.

## **Start Phase**

The start phase is very first phase during a players turn.

## **Troop Spawner**

Troop spawners have the ability to spawn troop token(s). Troop token(s) are spawned by the troop spawner during a player's start phase.

## **Troop Token**

A troop token represents a single troop which can traverse the game board, attack opposing troop tokens, activate player abilities, and collect mana points.

## **Target Audience**

Mana Surge strictly targets Strategic Gamers, but it has a fantasy theme which may appeal to thematic gamers as well. This game has similar game mechanics as chess or checkers, but the combat is unique. The outcome of combat between two opposing troop tokens depends upon their combat stats and combat modifiers. Furthermore, this is a game for people who enjoy commanding a small army.

## **Number of Players**

Mana Surge has been optimized to accommodate a match among three players. The game board may accommodate a one-on-one match too.

# PRELIMINARY DESIGN

## Outline

### Goals (G)

Win the match by being the first player to collect 10 mana points.

### Rules (R)

- During the start phase of a player's turn, if the player has an empty hex tile besides his or her troop spawner, then he or she must place a new troop token on the empty hex tile.
- Troop tokens enter the playing field with default combat stats of 1 attack and 1 defense.
- If a player forgets to spawn a troop token during the start phase, then the player may not return to the start phase in order to spawn troop tokens.
- A player's action points are restored at the beginning of the start phase. Players may perform one action per turn – unless this player has activated a special ability which grants an extra action.
- A player may only place newly spawned troop tokens on the hex tiles which are adjacent to his or her troop spawner.
- A player may choose which hex tile to place a spawned troop token when there are more than one empty hex tiles (which are adjacent to the player's troop spawner).
- A player may only spawn one troop token at the start of his or her turn – unless this player has activated a special ability which grants an extra troop(s) to be spawned.
- A player may activate multiple special abilities of the same type on the game board. The effects of special abilities will stack for the player.
- The "extra spawn" special ability will allow a player to spawn an extra troop token during his or her start phase.
- The "extra action" special ability will allow a player to use an additional action point during each of his or her turns. The additional action point becomes available during the player's next start phase.
- During the start phase of a player's turn, if there are no empty spaces which are adjacent to a player's troop spawner, then the player may not place new troop tokens on the game board.
- A player enters the move phase after the end of his or her start phase. The start phase automatically comes to an end after the player has finished placing newly spawned troop tokens.
- During the move phase of a player's turn, he or she may choose to move any troop token(s) which belong to him or her. The player's movement choices are limited by the amount of action points that he or she has left.
- There are two move phases during a player's turn. The first move phase comes after the start phase, and the second move phase comes after the combat phase.
- A player must use one action point to move one troop token to one hex tile. Furthermore, the hex tile that the player chooses to move to must be empty.
- If the player moves a troop token on to a thorns hex tile, then the troop token is automatically defeated. Thorns hex tiles are meant to be deadly obstacles.

- During the move phase of a player's turn, he or she may choose to skip the move phase in order to conserve actions.
- During the move phase of a player's turn, if the player moves one of his or her troop tokens to a hex tile that grants a special ability, then the special ability is automatically activated.
- When a player places a troop token on top of a hex tile which grants a special ability or on top of the hex tile which is the Moon Pool, then the troop token is locked into place. This troop token can no longer move away from the hex tile.
- During the move phase of a player's turn, if the player moves one of his or her troop tokens to a hex tile that has a combat modifier, then that troop token's combat stats are immediately modified.
- If a troop token is moved off of a hex tile which has a combat modifier, then the modification is immediately removed from troop token's combat stats.
- Furthermore, a troop token that is placed upon a hex tile which grants a special ability or the hex tile which is the Moon Pool, then it can no longer initiate an attack with adjacent troop tokens.
- A player enters the combat phase after ending his or her first move phase. This player may choose to skip this phase when he or she is out of actions.
- During the combat phase of a player's turn, he or she may choose to attack an adjacent opposing troop token. The player must use one action point to attack.
- When a troop token attacks another troop token, then both troop tokens will attack each other. If the attacking troop token's attack value is greater than or equal to the other troop token's defense value, then the other troop token is removed from play. Likewise, if the other troop token's attack value is greater than or equal to the defense value of the attacking troop token, then the attacking troop token is removed from play too.
- A player will immediately lose a special ability when his or her troop token has been removed from play. This rule applies to any player whose troop token is removed from a hex tile which has a special ability.
- A player enters the second move phase after ending his or her combat phase.
- A player enters the end phase after ending his or her second move phase. If this player has a troop token on the Mana Pool, then he or she must automatically collect one mana point. Players can collect mana points from the Mana Pool on their turn only.
- A player who has activated the sacrificial dagger special ability may choose to sacrifice three troop tokens before ending his or her turn. The player will in turn receive one mana point, and the sacrificed troops will be removed from the game board.
- A player must use one action point to use the sacrificial dagger special ability.
- A standard game of Mana Surge is over when a player reaches 10 mana points. A player who reaches 10 mana points - wins the game.

### **Actions (A)**

- Activate (INV)
- Attack
- Calculate (INV)
- Collect (INV)
- Deactivate
- Lock (INV)
- Move

- Remove (INV)
- Sacrifice
- Spawn / Place

### **Transitions (T)**

- Start Match – This is the start of the game.
- Start Phase – A player enters the start phase at the beginning of his or her turn. During this phase the player's action points are renewed to be used during his or her turn. New troop tokens are spawned by the player's troop spawner.
- Move Phase – A player enters the move phase after exiting the start phase. During this phase the player may choose to use action points to move troop tokens.
- Combat Phase – A player enters the combat phase after exiting the move phase. During this phase the player may choose to use action points to initiate an attack with opposing troop tokens.
- End Phase – A player enters the end phase after exiting the combat phase. During this phase a player must automatically collect a mana point from the Mana Pool when he or she has a troop token on it. Mana points may only be collected at the end of the player's turn.
- Game Over – The game is over when a player collects 10 mana points. That player wins the game.

### **Items (I)**

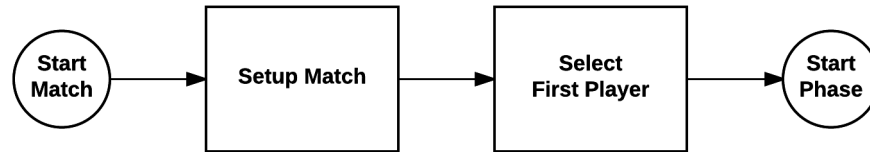
- Game Board (x1)
- Red Token Spawner (x1)
- Green Token Spawner (x1)
- Blue Token Spawner (x1)
- Red Troop Tokens (x15)
- Green Troop Tokens (x15)
- Blue Troop Tokens (x15)

### **Setup (S)**

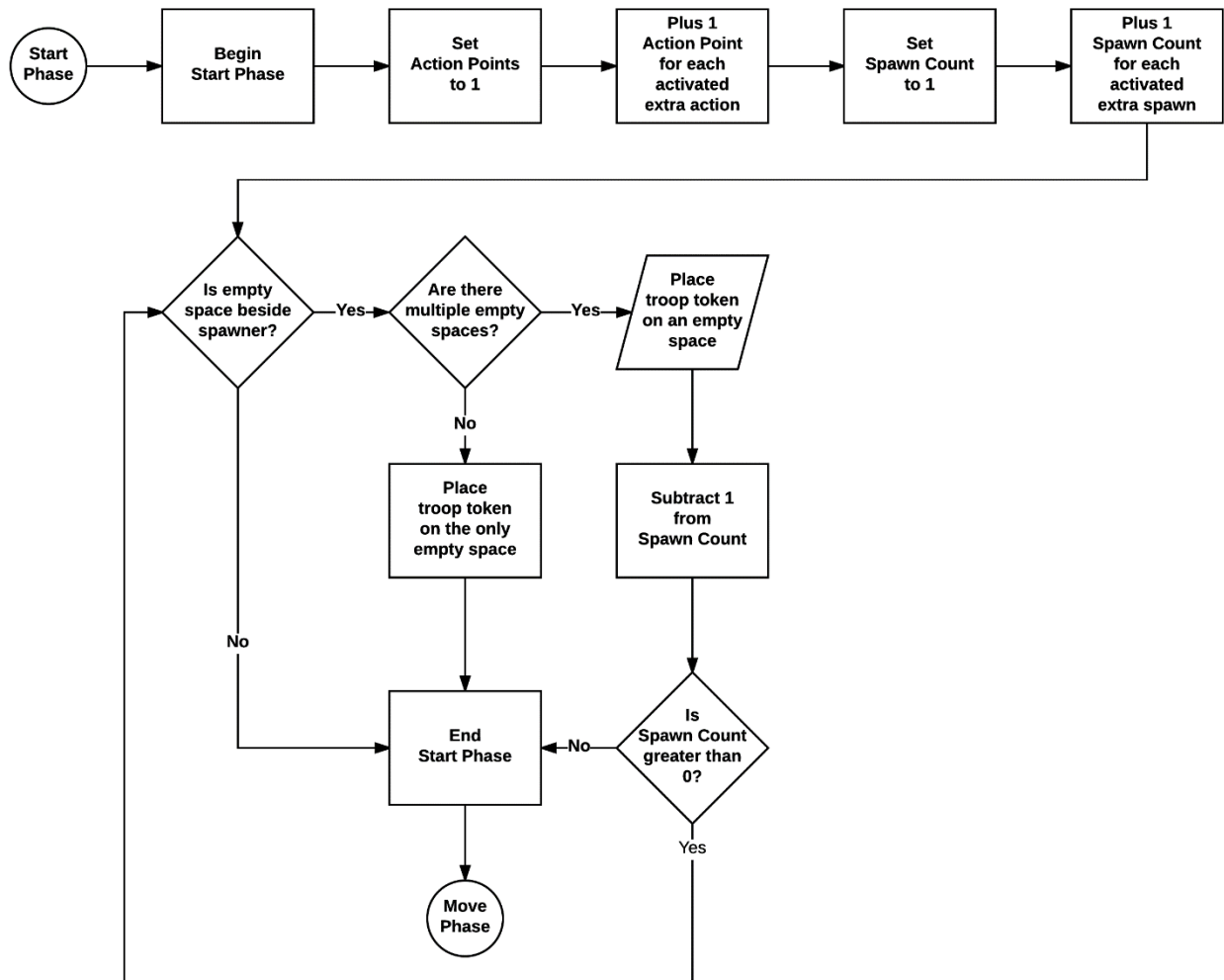
- Each player will pick a color, then he or she will gather the game tokens of that color. The player should gather one token spawner and 15 troop tokens of the chosen color.
- Each player must place his or her troop spawner in one of the designated hex tiles of the game board. (Pick one of the three corners).
- Each player must place three troop tokens in the hex tiles adjacent to his or her troop spawner.
- Each player begins his or her turn with one action point that may be used during the turn.
- Determine which player goes first. (winner / loser of last games goes first).

## Flowcharts

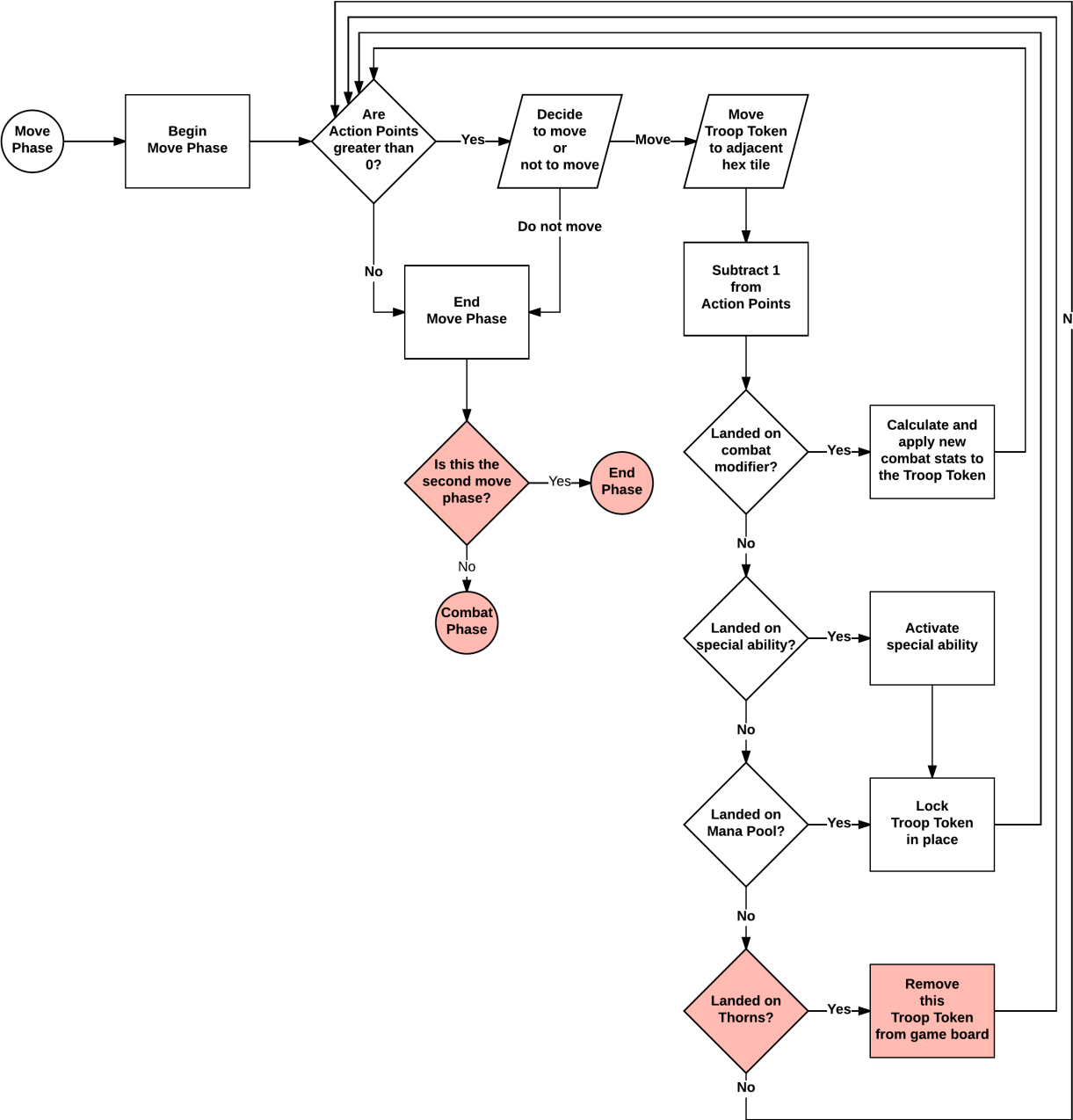
### Start Match



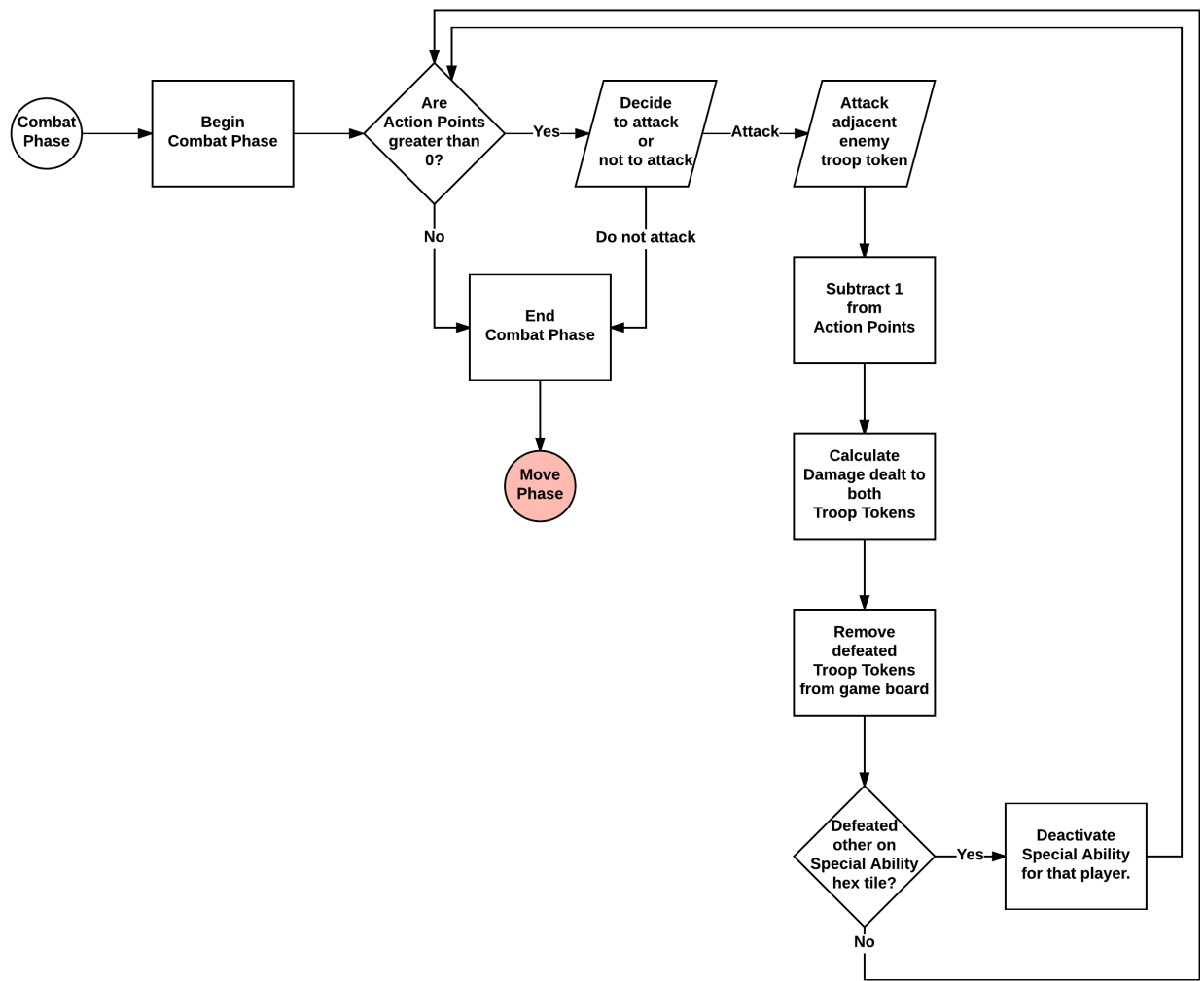
### Start Phase



Move Phase

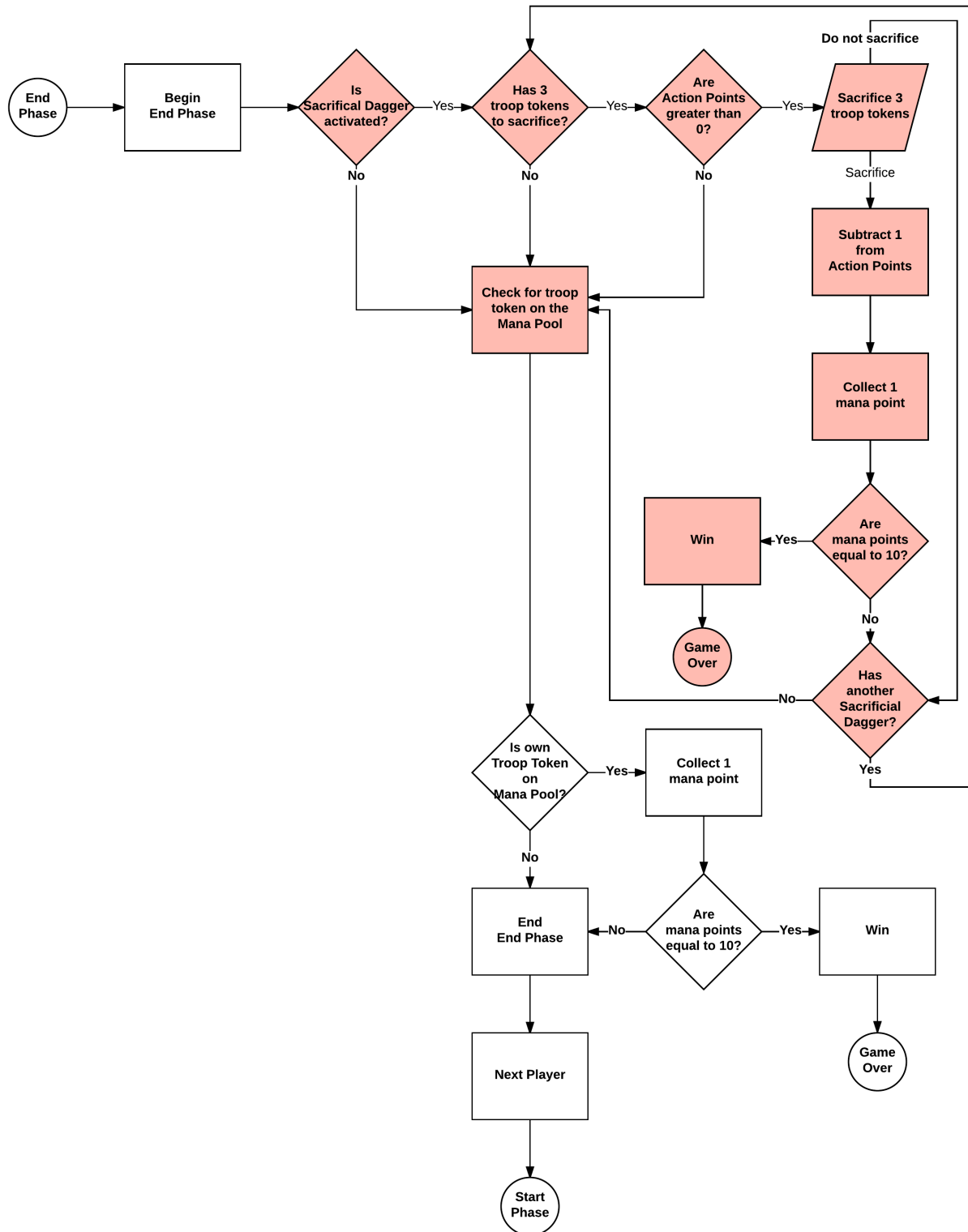


Combat Phase





## End Phase



## **Meaningful Action Analysis (MAA)**

### **Activate (not a meaningful action)**

A player may move a troop token to a hex tile which grants the player a special ability. The special ability is automatically activated when the player moves a troop token on to it. Generally, allowing special abilities to be activated will give players an advantage. This is not a meaningful action because the special ability is automatically activated for the player. The player's skill does not determine if a special ability activates.

### **Attack (meaningful action)**

A player may choose which of his or her own troop tokens to use in an attack. Furthermore, the player may choose which other player's adjacent troop token to attack. Players may choose to initiate an attack between their own troop tokens and other opposing troop tokens. A troop token which is on a hex tile with a special ability or Mana Pool is locked, and it may not be used to initiate an attack. This is a meaningful action because the player chooses to attack or not to attack. Furthermore, the player may choose which opposing troop token to attack when there are multiple adjacent opposing troop tokens.

### **Collect (not a meaningful action)**

If a player has a troop token on the hex tile which has the Mana Pool, then he or she will automatically collect one mana point during the end phase of his or her turn. The player has made a past choice to move a troop token on to the hex tile which has the Mana Pool. The troop token is locked into place after it is moved on the mana pool. This is not a meaningful action in the case of collecting mana points because the player does not have a choice in the matter.

### **Calculate (not a meaningful action)**

If a player chooses to attack another player's troop token, then the damage that both troop tokens deal to each other must be calculated. This is not a meaningful action because there is only one correct way to calculate the damage that is done. Damage must always be calculated after attacking.

### **Deactivate (not a meaningful action)**

If a player removes a troop token from a hex tile which has a special ability, then the special ability will deactivate. The special ability is deactivated automatically. This is not a meaningful action because the special ability must deactivate when there is no longer a troop token on it.

### **Lock (not meaningful action)**

A player's troop token locks when it is moved on to a hex tile which grants a special ability. The troop token must automatically lock in place, and it can no longer be moved. Furthermore, a locked troop token cannot initiate an attack. This is not a meaningful choice because it must lock automatically.

**Move (meaningful action)**

A player may choose to move one of his or her own troop tokens. The player may move a troop token as long as he or she has at least one action point. Players may move troop token to empty adjacent hex tiles only. This is a meaningful action because the player must decide which of his or her own troop tokens to move. Furthermore, the player must decide which direction to move too.

**Remove (not a meaningful action)**

When a player's troop token has been defeated, then it must be removed from the game board. Generally, the troop token will be returned to the player. It basically becomes an extra troop token that the player may place during his or her start phase. This is not a meaningful action because a defeated troop token must be removed from the game board.

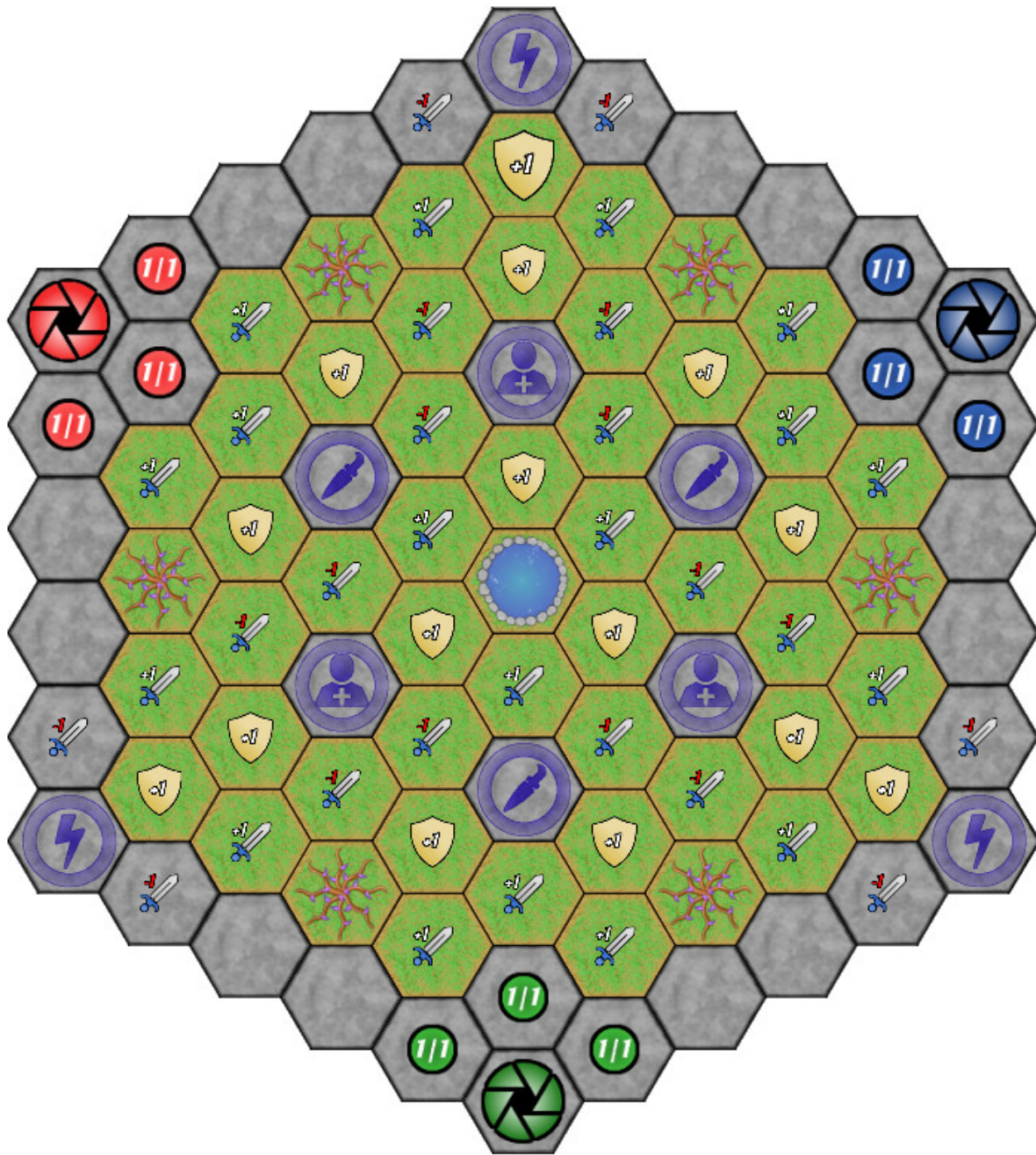
**Sacrifice (meaningful action)**

A player who has activated a sacrificial dagger ability may choose to sacrifice three troop tokens in exchange for one mana point. A player may pick any three troop tokens that he or she controls to sacrifice. This is a meaningful choice for the player because the player must choose to sacrifice his or her troop tokens during the end phase of the turn.

**Spawn / Place (meaningful action)**

A player may be able to choose where to place a spawned troop token. In order to choose where to place a spawned troop token, there must be at least two empty hex tiles which are adjacent to the player's troop spawner. This on occasion a meaningful action because the player may choose which hex tile to place a spawned troop token.

## Board Design



## Component Pieces

- Game Board
- Troop Spawner (Green) (x1)
- Troop Spawner (Red) (x1)
- Troop Spawner (Blue) (x1)
- Troop Token (Green) (x20)
- Troop Token (Red) (x20)
- Troop Token (Blue) (x20)