# Galaxy Empires Design Document

## Changelog

| Date | Description |
|---|---|
| 7 Dec 2021 | <ul><li>Final version</li><li>Added table of contents</li><li>Updated images to match final versions</li><li>Finalized existing sections</li><li>Added Gameplay and Mechanics sections</li><li>Added Art and Assets section - shows the final art created for the game, explains changes where needed</li></ul> |
| 30 Nov 2021 | <ul><li>Updated map</li><li>Removed rulebook and resource prices</li><li>Added link to rulebook and resource prices to make design document more concise</li></ul> |
| 29 Nov 2021 | <ul><li>Updated rules section to reflect changes to rulebook</li></ul> |
| 22 Nov 2021 | <ul><li>Added more information about each faction's special ability</li></ul> |
| 18 Nov 2021 | <ul><li>Created separate design document (this one) from original</li><li>Added changelog</li><li>Reorganized layout and document outline</li><li>Reformatted prices into tables</li><li>Expanded concept to include what we want players to feel and how they want to act during the game</li></ul> |

## Team

| Name | Role |
|---|---|
| Kyle Rudman | Lead Game Designer, Rulebook Writer |
| Vikram Chowdhary | Producer |
| Junye Zhang | Character Designer, Map Designer |
| Tom Doyle | Developer, Rulebook Writer |
| Wenhao Zhu | Artist, Concept Designer |

# Table of Contents

# Introduction

## Concept

Players assume the role of leader of an alien race, battling for control of their galaxy against 3 other factions. They can conquer new territories, do battle with their enemies, and negotiate trades to give themselves an edge over their opponents.

While playing this game, we want players to be engaged in the game, actively planning their moves a few steps ahead. To this end, we want there to be multiple equally valid strategies for players to succeed at the game, which will both incentivize players to play the game multiple times to experiment with each of them, as well as keeping the flow of each individual game interesting, as not everyone will be pursuing the same path to victory.

We intend to discourage players from always choosing to fight battles with their opponents by making wars between players expensive, both to start and to continue. This serves two purposes: distinguishing Galaxy Empires from other games where players battle for control of territories, like Risk, and pushes the players to experiment with alternate strategies, especially when they are new to the game.

## Target Audience and Platform

This will be a physical board game, targeted at players who enjoy strategy games like Risk and Catan. Pictured below are the first version of the game board (left), and the final version (right). More information about how the board evolved through our design process can be found in the "Board" section of the Art and Assets chapter of this document.
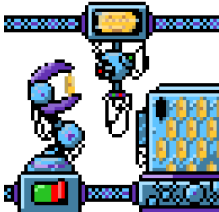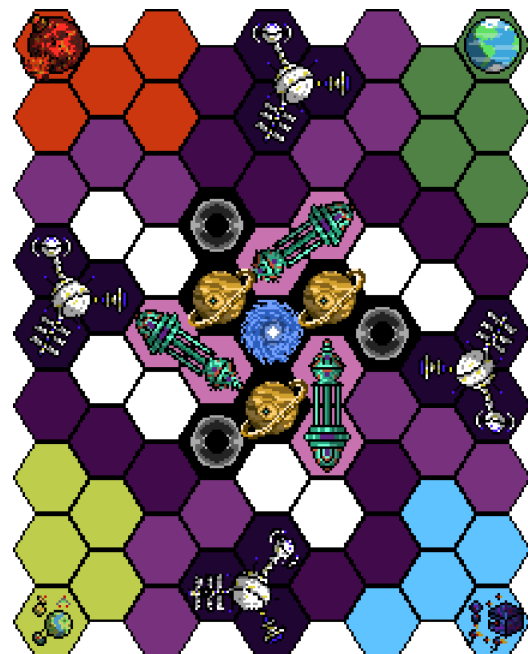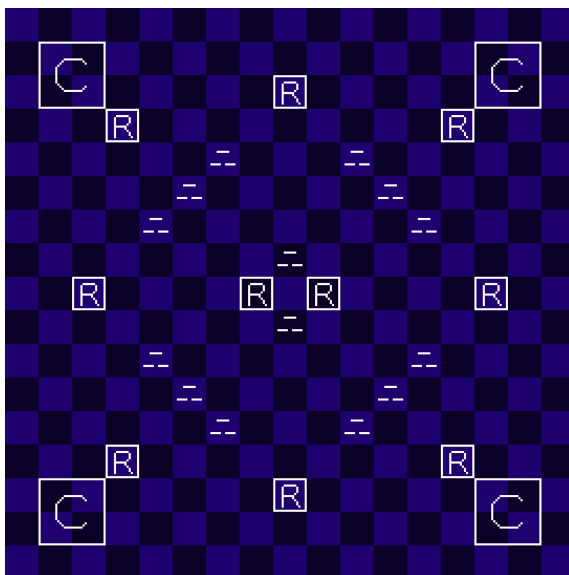
# Story

Players control alien factions battling for control over their home galaxy. As you travel around the galaxy, exploring and conquering new areas, you may discover planets and asteroids that provide you with access to wealth and resources, allowing you to recruit more troops to your army and build stronger defences for your empire, negotiating trades and deals with your opponents along the way. As you progress towards your goal, you gain political power and wealth, allowing you to tilt the odds in your favor.

## Factions

There are 4 playable factions in this game - red, green, yellow and blue. Each faction has a special ability, detailed in the table located below and on the next page. In early versions of *Galaxy Empires*, the special abilities were intended to encourage players to play in a different style depending on which faction they played as - the red player could force other players to trade political cards (which have since been removed from the game entirely) with them, green received a substantial boost to their [fleets'](#) strength in battle, blue earned additional money from resource collectors, and green had an extra slot to hold political cards.

As we conducted playtests and thought more about what we wanted, we realized that in addition to making the game extremely difficult to balance properly, the original abilities could force players to play in a way they didn't enjoy due to how heavily they incentivized one play style over another. To adjust for this, we greatly reduced the strength of each ability so that players would not be negatively affected by choosing to play in a way that their faction's ability did not strengthen, and instead providing each player with a passive ability that would lead to more variety over the course of a session of play.

| Faction | Commander | Ability Name | Ability Description | Ability Effect |
|---------|-----------|--------------|---------------------|----------------|
| Red |  | **Conqueror** | For thousands of years of evolution, our souls are no longer constrained by matters. | Capturing an opponent's territory grants $150 currency. |
| Green |  | **Hearts of Iron** | We will rule this galaxy, or watch it burn into ashes | Destroy an enemy fleet in war by rolling either a sum of 7, snake eyes (two 1s), or double six (two 6s). |

| Faction | Commander | Ability Name | Ability Description | Ability Effect |
|---------|-----------|--------------|--------------------|-----------------|
| Blue |  | **Technological Ascendancy** | The flesh is weak. Algorithms and metals are the sole truth of the universe. | Mining planets does not require the presence of a fleet to collect resources after the first turn doing so is successfully completed. |
| Yellow |  | **Diplomatic Diligence** | What about let us sit down and negotiate first? | Rolling a 6 for political points refunds the action to be used again in the same turn. |

# Game Flow Summary

The basic structure of each player's turn is detailed in the flowchart below. Play continues until one of the players reaches one of the win conditions described in the Rulebook or the Objectives section.
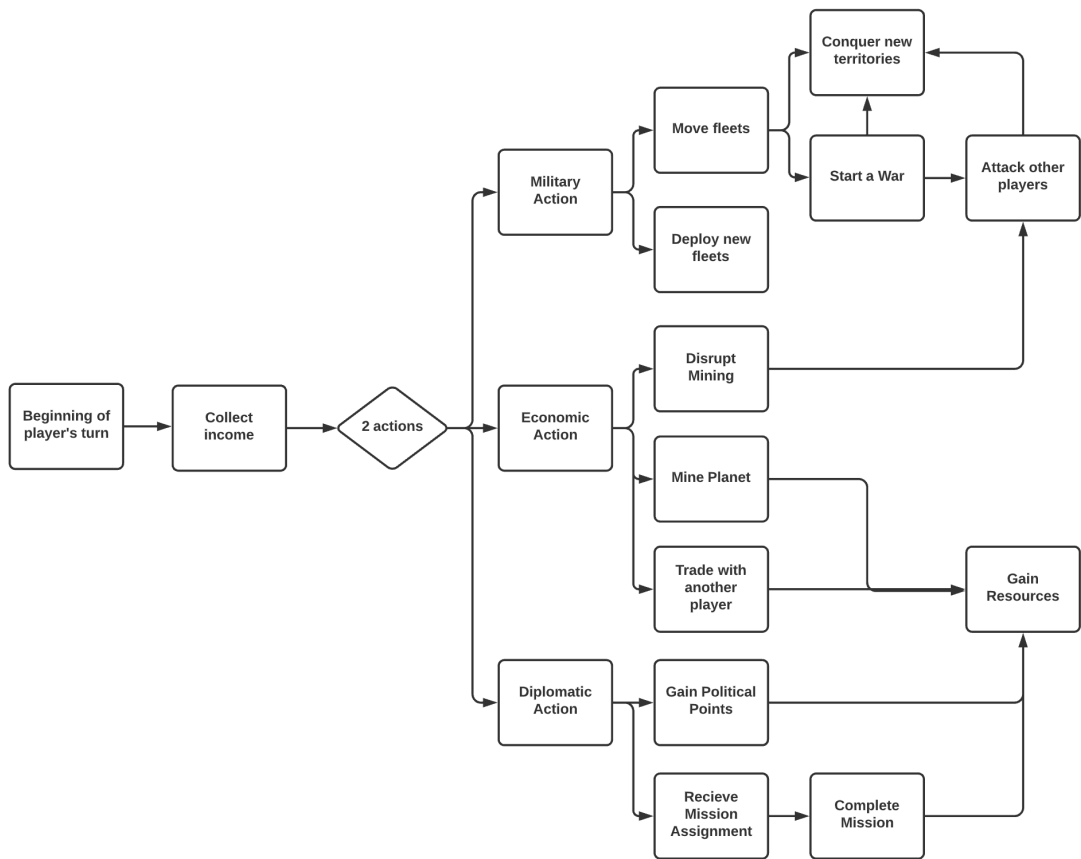
# Gameplay

For more detailed information about gameplay and the rules of the game, please see the *Galaxy Empires* Rulebook/Guide, available [here](#).

## Game Start

At the beginning of the game, players randomly draw a card from the face-down, shuffled pile of the four faction cards to determine which faction they will play as. Each player begins the game with a fleet on each of the 5 tiles within their capital, $1000 currency, and 5 political points. To determine the order of play, players roll a die, and the player with the highest number takes the first turn, with play continuing clockwise.

## Actions

Each turn, players have two actions to do any combination of Military, Economic, and Diplomatic Actions. Military Actions allow the player to reposition two fleets according to the [movement](#) rules, which can result in a [war](#), or deploy up to two fleets to their capital. Economic Actions permit a player to mine or disrupt a planet's resources or [trade](#) with another player. Diplomatic Actions allow the player to roll a die to gain [political points](#) or recieve a [mission assignment](#).

## Missions

Missions encourage players to complete a task in exchange for a bounty reward. To receive a mission, players draw from the deck of [mission cards](#). Players can have a maximum of two missions at a time, but can discard an old mission in exchange for a new one. Players are only required to reveal their missions to opponents once they complete them. To view the missions featured on the mission cards, please see the list of missions in the [Mission Cards document](#).

## Objectives

As the story and name of this game may suggest, the players' goal in this game is to expand their empire across the galaxy and gain control of it for their faction. They have three possible paths to accomplish this goal: Survival, Domination, and Bounty.

To achieve the Survival win condition, players try to eliminate each other from the game by capturing their opponent's Capitals. The last player still in control of their own Capital controls the galaxy, winning the game. For the Domination win condition, the first player to control 10 out of the total 19 territories in the galaxy wins, and for the Bounty win condition, the first player to accumulate $7,000 and hire the Legion of the Damned to assassinate the remaining opponents wins.

Each of these win conditions encourages a different style of play based on how each player wants to play *Galaxy Empires*, and multiple players pursuing different paths will both

create variety within a single game, as not every player has the same goal, and will provide players with a reason to return to *Galaxy Empires* to replay it and try to win by achieving a new objective.

## Game Flow

Each player begins the game with 5 fleets in their capital territory, $1000, and 5 political points. Each round, each player takes a turn made up of two actions, each of which can be used to take a Military, Economic or Diplomatic Action. Military Actions allow players to increase the number of fleets in their army or move them to a different territory, which can result in the player claiming a new territory or starting a war. Economic Actions allow players to trade with each other or to mine or disrupt a planet's resources, and Diplomatic Actions allow to gain political points or be assigned a mission that gives them a reward on completion. This gameplay loop continues until a player reaches one of the three win conditions described in the Objectives section above.

# Mechanics

For more detailed information about the mechanics of this game, please refer to the *Galaxy Empires* Rulebook/Guide, available here.

## Movement

Players can move 1 or 2 fleets each time they choose to move with a Military Action. They can move their fleets to any open tile within a territory, or one tile into an adjacent territory. To prevent players from moving too fast and maintain balance, each individual fleet can only be moved once per action, but the same fleet can be moved on consecutive actions.

When a player moves a fleet moves onto an unclaimed or unoccupied territory, their faction gains control over that territory, and they display their ownership of it by placing a flag within the territory.

If a player moves into an opponent's territory that is occupied by at least one opposing fleet, a war is started.

## War

Wars begin when a player moves their fleets into a territory that is controlled by an opponent and occupied by the opponent's fleets. Attacking players can use two military actions to move up to four of their fleets into or adjacent to the territory, and they must pay 7 political points. Fleets can invade territories from adjacent tiles, regardless of how many fleets the defending player has in the territory, meaning that the number of invading fleets can exceed the number of tiles available within the territory.

Wars are fought as a series of 1v1 battles for the involved fleets; battles consist of each player rapidly rolling two dice as quickly as they can, with a sum of 7 resulting in one of the

opposing player's fleets being eliminated. The War ends either when one player has no fleets remaining, or one player retreats with their surviving fleets. The rewards for the victor and penalties for the loser in each of these situations can be seen in the "Consequences of War" section of the *Galaxy Empires* Rulebook.

# Economy

        *Galaxy Empire*'s economy is centered around two currencies: money and political points. These can be exchanged for resources, seen in the table below, which either grant income in the form of money or political points, or are fleets that players can move around the map to control territories and fight wars. Information about the prices of and income generated by each of the resources in *Galaxy Empires* is in the table on the next page.

| Resource | Cost | Income per turn | Hints |
|---|---|---|---|
| Capital | --- | $100 | Keep a fleet present in your capital to prevent capture |
| Territory | --- | $50/$100/2 PP | Acquire, manage and protect your territories strategically |
| Planet | 3 actions | $300 x 3 | A worthy investment under certain circumstances |
| Fleet | $500 | --- | Consider purchasing fleets in order to strengthen your presence in desirable parts of the map |

## Money

        Money is the more basic of the two currencies in *Galaxy Empires*, and is used to buy new fleets, which can then be used to fight wars with other players, conquer new territories, and defend the player's empire. Players earn money by mining planets, controlling their Capitals, Frontier territories, and Space Stations. Additionally, if a player accumulates $7000, they can spend that money to hire the Legion of the Damned to assassinate their opponents and win the game. There is no cap on the maximum amount of money a player can have.

## Political Points

        Political points can be earned in two ways: by controlling Political Centers, and by using Diplomatic Actions to roll a die and gain the resulting number of political points. Political points can be used to start a war, which costs 7 political points, or trade with another player on an Economic Action, which costs 3 political points for each player involved.

        Players can have a maximum of 15 political points at any given time.

# Trading

Players can discuss possible trades at any point during the game, but in order to finalize the deal, one player must have a fleet present in a territory adjacent to one of the other player's territories, use an Economic Action, and completing the trade costs each player involved 3 political points.

Trades can be made for anything in the game a player can think of, as long as they find a willing trade partner. Some possible trades include:

- Buying or selling a territory
- Buying or selling fleet(s)
- Player A wants to avoid risking their fleets in a war and purchases a space station and an occupying fleet from Player B for $1000 and 3 political points each

# Art and Assets

## Board
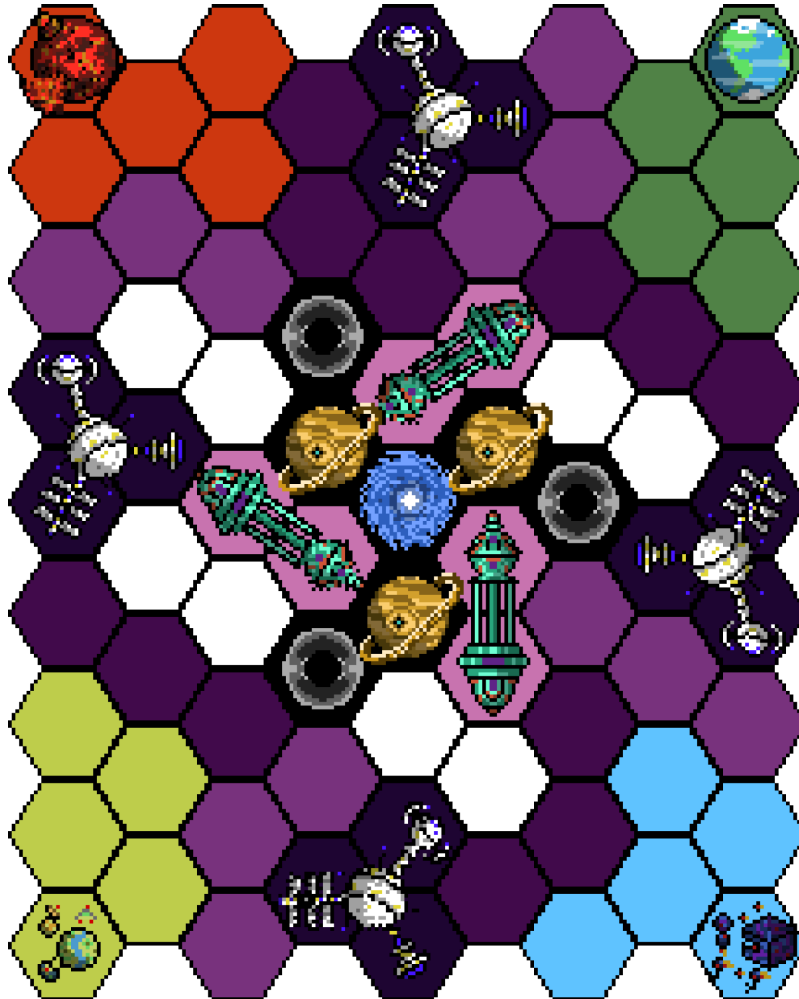


Galaxy Empires is played on a 9x9 board *(above)* made up of hexagonal tiles, each of which can be occupied by a single fleet. Multiple tiles make up a territory, which are distinguished from each other by a difference in color and design. The four uniquely colored territories in the corners of the board are the players' Capitals, and grant them $100 currency at the beginning of each round while the territory is at peace. If a player loses control of their capital, they are eliminated from the game.

A cluster of planets and black holes orbits a wormhole in the center of the galaxy. Each planet is a source of valuable resources that can be mined by a player, providing them $900 over three turns. Black holes serve as obstacles to player movement and cannot have fleets placed on them. The Wormhole provides a means of transport between each political center.

The Frontier territories are the 3-tile purple territories adjacent to each Capital. They grant the player that controls them $50 currency each round, and provide quick movement

through the map, as well as being the last line of defense before an opponent reaches a player's capital. Neutral Zones are the white territories near the center of the galaxy, and cannot be controlled by any player. Space Stations are the dark purple territories between the capitals, and each one grants the player that controls it $100 currency at the beginning of each turn. Political Centers, the pink tiles adjacent to the Neutral Zones, grant the player that controls them 2 political points per turn, and allow players to move between Political Centers through the Wormhole.
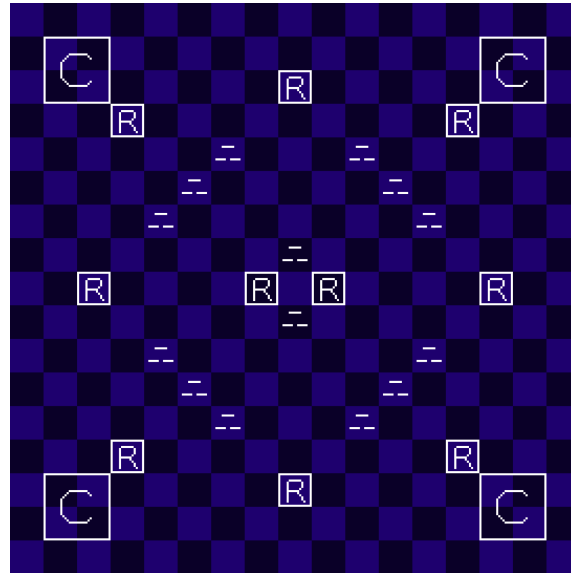


Through various stages of playtesting, rewriting rules, refining mechanics, and redesigning the objectives of *Galaxy Empires*, our team revised the original board *(above)* to have territories that spanned several tiles and decreased the size of the board to make movement faster. Territories were then split into several different types, as explained above. Additionally, the number of planets (marked with 'R' in the original map) was lowered, and they were relocated to the center to encourage more player interaction.

## Faction Commanders

Each playable faction has a commander that grants the faction a special ability. The image for each is shown below *(from left to right: red, green, blue, yellow).*

# Fleets

Fleets are the representation of each faction's military strength, allowing them to expand their empire and wage war on their opponents. Each faction's fleet tokens can be seen below (*from left to right: red, green, blue, yellow*).
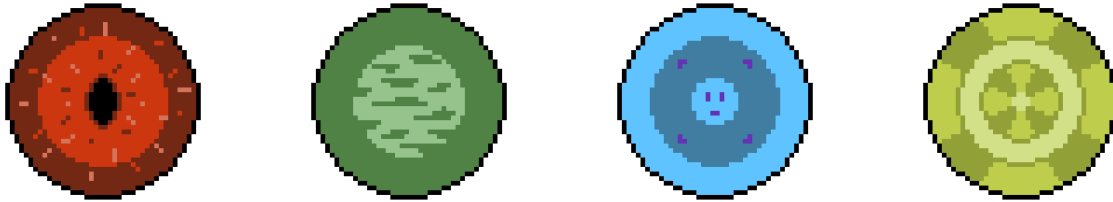
# Flags

Flags are used by players to mark which territories they own. They arose from a desire to allow players to easily track which territories they controlled without needing to leave a valuable fleet in the territory as a marker *(from left to right: red, green, blue, yellow)*.

# Money

As described in the Economy section, players use money to purchase resources. Players can also use money in trades. The main denominations that are used over the course of the game are $100 *(left)* and $50 *(right)*, and other denominations are available to be viewed in the Materials/Assets folder.
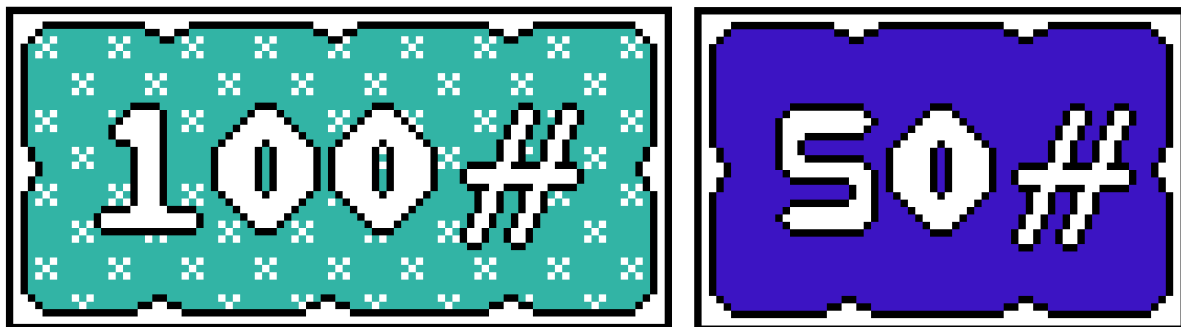
# Mission Cards

The missions included in *Galaxy Empires* are described in the [Missions section](). The artwork created for the back of the deck of mission cards is below.



Additionally, each mission can be categorized as Military, Economic, or Diplomatic, so each card receives one of the images below on the front *(from left to right: Military, Economic, Diplomatic)*.



# Galaxy Empires Rulebook

The complete rulebook for *Galaxy Empires* can be found [here](). It contains detailed instructions for how to set up, play, and win *Galaxy Empires*.