

## Cosmic Escape: A 2D style pixelated game

“Cosmic Escape” is a game involving an astronaut named Jerry, on his space journey back home to the International Space Station (ISS). In Jerry’s way are different obstacles impeding him from going back. Firstly, deadly giant aliens of the Waru clan are resting throughout space, who are so powerful that they damage any spaceship that bumps into them. Secondly, there are also flying meteors that Jerry must avoid, otherwise his ship will completely tear apart into dust. Lastly, there is a final hurdle for Jerry, that is the lazy Waru Clan Aliens, have put 4 barriers of different color around the ISS, that can only be unlocked by keys of matching color, which are scattered throughout space. If that wasn’t enough, Jerry’s journey only gets harder with stationary rocks around the map that Jerry must navigate around, although not damaging, make the travel lengthier. In spite of the perils, scattered around the map are the different keys that Jerry can use to get past the barriers blocking the ISS. Furthermore, the keys upon retrieval also boost the Spaceship’s health, ensuring further protection against the giant aliens. There are also different balls of energy appearing sporadically around the map that boost the Spaceship’s health further.

### Game Components:

1. The game begins by displaying a main menu with a play button and options button. Future implementations may include a character choice button and a map choice button.
2. After the start screen, the main character begins at the top left of a 2D fixed rectangular map. The goal is to reach the International space station which is the end point(Top right).
3. There are stationary clusters of rocks inside the map that act as a **barrier** that impedes movement.
4. In terms of non-main character entities, there are enemies and Rewards:
  - a. There are two types of **Enemies**:
    - i. **Moving enemy**: Meteor
      1. Moves one cell in the direction closest to the player each tick, and instantly causes game over, if the main character touches them.
    - ii. **Stationary enemy**: Alien
      1. The Alien removes 10 points from a player’s score (or defined as the Spaceships health), and if score < 0, then the game is over.
  - b. There are two types of **Rewards**:
    - i. **Regular Reward**: There are different keys that appear throughout the map, and each provides 5 points to the player’s score. Once the player collects three keys of unique color then the player gets to the ISS(their goal destination). The player wins when they reach the ISS.
    - ii. **Bonus Reward**: There are bonus rewards, in forms of balls of energy, that spawn randomly throughout the map and give between 5-20 score points to the player. The more points the bonus reward is worth, the shorter it remains on the map.
  - c. Future implementations may also include Wormholes as a stationary entity which can teleport the main character to a random point on the map.