<u>Island Rush</u>

1. Single Player/ Multiplayer
2. Islands galaxy consist of many Island groups:

   Small galaxy(quick play - 2 players(optional)) :

       51 islands

   Medium galaxy(casual play - 4 players(optional)):

       101 islands

   Large galaxy(serious play - 8 players(optional)):

       201 islands

   Giant galaxy(tournaments - 16 players(optional)):

       401 islands

3. Players move from Island to Island via a teleporter(path in between them)
4. Player moves are determined by Dice Rolls
5. Dice rolls are not conventional 1 to 6 or anything, A dice roll output is one of the neighboring islands and player moves there.
6. Objective of the Game is to reach the Final Island, as players start from different outermost islands
7. There are various island types:
   a. Trap Islands:
      1. When player lands on these islands, they can catapult the player to remote islands,
      2. Or skip the player's chance to roll the dice, or
      3. penalize the player resources.
      4. If their resources become negative they are disqualified.
      5. These islands are more concentrated near the final island. 20% per map
   b. Buff Islands:
      1. When player lands on these islands, they can catapult the player to near islands, or
      2. add the player's chance to roll the dice, or

3. reward the player resources.
4. These islands are more concentrated near the remote islands. 20% per map

c. Normal Island:
1. They are normal Islands with no special effects. 18% per map

d. Shop Island:
i. Players can buy abilities using resources. 16% per map

e. Merge Island:
1. When two players land this island they become a single player for a limited time.
2. All the moves for the merged players are randomly decided by computer.
3. 8% per map

f. Event Islands:
1. These Islands trigger events when players are in close proximity to them.
2. These events can be alliance events, resource stealing and Trading events at random.
3. 8% per map

g. Random Islands:
1. These Islands can act as trap island, buff island, merge island or simply swap two players' positions randomly.
2. 10% per map

h. Final Island:
1. Ultimate goal for the game. 1 per map

8. There are various game modes:
a. Race Mode:
i. In this mode the objective of the game is to reach the final island the fastest.
ii. Players can buff themselves or debuff others to gain advantage over others.
iii. buff and debuff can be collected on islands randomly
iv. Some paths disappear from the path randomly, but it is ensured at least one path remains to the final island(hard mode).

b. Resource Gathering Mode:
a. In this mode the player gathers resources.
b. There are Islands that require players to pay a certain amount of resources to travel through them.
c. The final Island also has a resource collector that requires resources to open up.
d. This can be played as a team sport.

   e. Players can buff themselves or debuff others to gain advantage over others.

   f. Buff and Debuff can be collected on islands randomly

  c. Survival Mode:

   1. Rush to the final Island as the remote islands start to disappear.

   2. This can also be a team sport

   3. Players can buff themselves or debuff others to gain advantage over others.

   4. Buff and Debuff can be collected on islands randomly

   5. Some paths disappear from the path randomly, but it is ensured at least one path remains to the final island(hard mode).

9. Resources are gold coins scattered randomly across the island galaxy.

10. Resources can be used to unlock certain abilities randomly, or power-ups, penalties for others.

11. Resources can be obtained from islands or by trading with players. 10 initial resources are given at the start of each game.

12. Ability can be buff, debuff, steal resources, luck boost, freeze, push or swap

13. Abilities can be:

  a. Basic: 3 resources per Ability

  b. Intermediate: 5 resources per Ability

  c. Advanced: 8 resources per Ability

14. Abilities have limits like time, charging up, etc.

15. Each player has 3 ability slots.

16. Immunity is also one of the abilities. This ability when used can help player avoid debuffs, penalty or trap islands

17. Players can create trap islands in path of other players by using resources

18. Theme for the game can be dark, gothic and space.

19. At any island we calculate the probability of each path available. We need to make sure that players are not stuck in a loop. Making sure to calculate the probability such that moving towards the final island is on priority.

To generate the galaxy of islands we can think of it as an undirected Graph of nodes with the final Island as the central island with various paths leading to other islands.

Example for 50 islands structure:
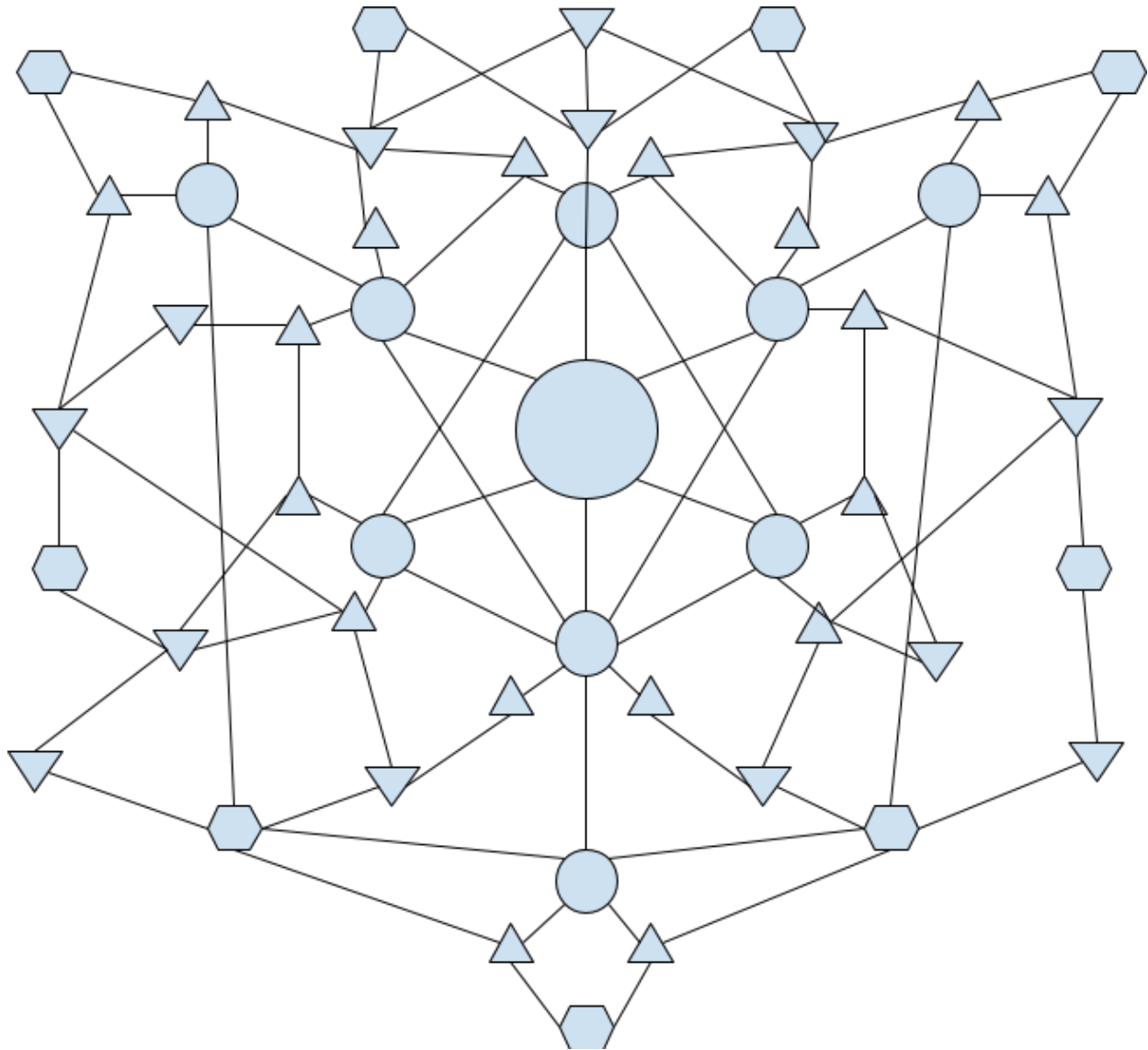
Island Rush

Overview

Theme: Dark, gothic, space-themed design.
Objective: Reach the Final Island or achieve specific goals based on game mode.
Player Modes: Single player or multiplayer, with a range of 2 to 16 players.

Galaxy Sizes (for different gameplay styles):
Small Galaxy (Quick Play, 2 players) - 51 islands.
Medium Galaxy (Casual Play, 4 players) - 101 islands.
Large Galaxy (Serious Play, 8 players) - 201 islands.
Giant Galaxy (Tournaments, 16 players) - 401 islands.

Movement and Gameplay Mechanics
Pathways: Players move from island to island using teleporters (paths) between them.
Dice Rolls: Instead of traditional numbers, dice rolls determine which neighboring island the player moves to.
Probability System: Probability calculations ensure progress towards the Final Island and avoid looping paths.

Island Types
Trap Islands (20%):
Effects: Can catapult players to remote islands, skip their turns, or penalize resources.
High Concentration: Near the Final Island.
Disqualification: If resources drop below zero.

Buff Islands (20%):
Effects: Can move players to nearby islands, give extra turns, or reward resources.
High Concentration: Near remote areas.

Normal Islands (18%): Standard islands with no special effects.

Shop Islands (16%): Players can buy abilities using resources.

Merge Islands (8%):

Effect: When two players land here, they merge temporarily, with moves randomly controlled by the computer.

Event Islands (8%): Trigger random events like alliances, resource theft, or trading.

Random Islands (10%): Can act as any other island type or swap two players' positions.

Final Island (1 per map): Ultimate goal for players.

Game Modes
Race Mode:
Objective: Reach the Final Island the fastest.
Buffs/Debuffs: Collectible on islands, usable to gain an advantage.
Hard Mode: Some paths randomly disappear, but at least one path always remains.

Resource Gathering Mode:
Objective: Gather resources by moving through resource-requiring islands.
Final Island: Requires a certain amount of resources to unlock.
Team Play: Can be played cooperatively.

Survival Mode:
Objective: Rush to the Final Island as remote islands begin disappearing.
Team Play: Can also be played cooperatively.
Hard Mode: Paths disappear randomly, ensuring at least one route to the Final Island remains.

Resources and Abilities
Resources: Gold coins scattered across islands, used to buy abilities and unlock power-ups or penalties for others.

Initial Resources: Each player starts with 10 resources.
Collection: Obtainable on islands or by trading with other players.
Abilities: Purchased with resources and divided into categories:

Basic Abilities (3 resources): Minor boosts or effects.
Intermediate Abilities (5 resources): Moderate impacts.

Advanced Abilities (8 resources): Strong effects, with usage limits (e.g., time or recharge).

Examples: Buff, debuff, resource steal, luck boost, freeze, push, swap, immunity (protects from debuffs, penalties, or trap islands).
Slots: Each player has 3 ability slots for customization.

Galaxy Generation and Design
Structure: Modeled as an undirected graph where islands are nodes connected by pathways, with the Final Island as the central node.
Path Probability: Ensures players progress toward the Final Island while avoiding infinite loops.

Island Distribution:

Trap	Buff	Normal	Shop	Merge	Event	Random	Total	Final
20%	20%	18%	16%	8%	8%	10%	100%	1
10	10	9	8	4	4	5	50	1
20	20	18	16	8	8	10	100	1
40	40	36	32	16	16	20	200	1
80	80	72	64	32	32	40	400	1