

ESCAPE VELOCITY

Version 0.06

Overview

In Escape Velocity, players are space entrepreneurs, building equipment, launching materials and colonists into space, and helping to industrialize the final frontier. There are no points, just profits!

Each turn represents 2 Earth months, so 6 turns is one Earth year. Players will influence Earth governments to encourage subsidies in certain areas, survey and mine for materials, research new technologies, build them, and launch missions into space. The planet movement and spacing is realistic and players will have to account for their movement as they plan deliveries and launch colonists.

Components

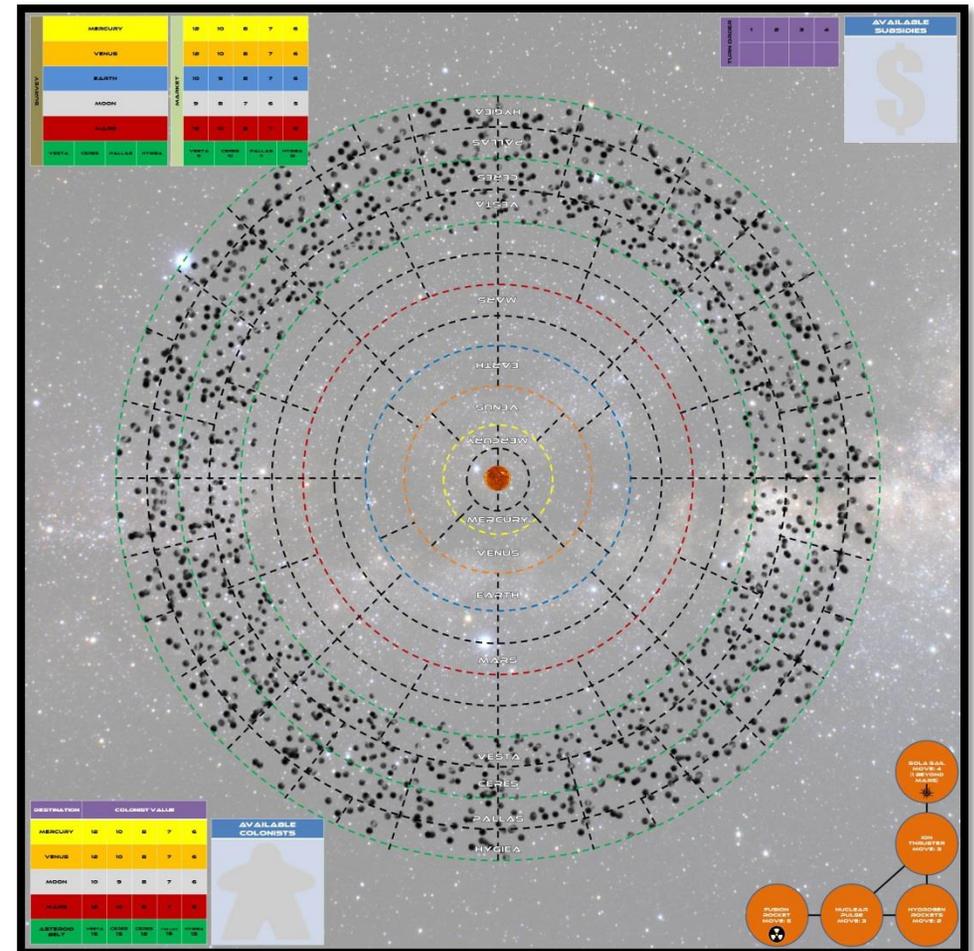
Board

The board contains the area where the planets orbit the sun and players' ships will travel. It also contains the markets where players can buy and sell goods.

Locations

Each planet goes on its track and will move 1 space per turn, **counter-clockwise around the sun**. If a shuttle is in orbit around a planet, it will be in the same space as the planet. If it is on a planet or station, it will be placed on the player mat.

- Mercury – yellow
- Venus – orange
- Earth – blue
- Moon – grey
- Mars – red
- Asteroid Belt – green



Market

The market shows the current value of materials at a particular location. When players buy materials, they pay the cost for the number they are uncovering. When selling, they receive the money for the space they cover.

Survey

The survey box shows the current materials available to be mined at a particular location. When players mine materials, they pay the cost and move it to their warehouse in the same location.

Shuttle Technology

The shuttle technology track shows which shuttle technology each player is currently using.

Turn Order

The turn order tracker shows the current order of players.

Colonists

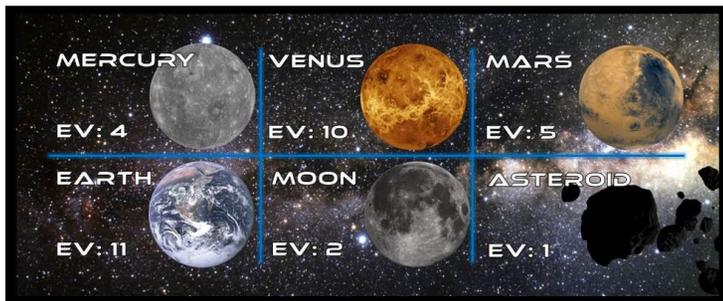
Colonists will be added each turn and are color coded according to their destination. When a player picks up a colonist, they take money for a ticket sold and promise made.

- Mercury – yellow (5)
- Venus – orange (5)
- Moon – grey (5)
- Mars – red (5)
- Asteroid Belt – green (5)

Once accepted as a passenger, colonists must always be on a shuttle until delivered to their destination.

Player Boards

Player boards are where players keep track of equipment in play or in progress as well as resources available on that location. Also, player boards list the **escape velocity** (EV) for each location.



Materials

Materials are used to build equipment or sold at market. Colored cubes are used to represent materials and are color coded to their desired destination:

- Mercury – yellow
- Venus – orange
- Earth – blue
- Moon – grey/white
- Mars – red
- Asteroid Belt – green

Materials are always in one of several locations:

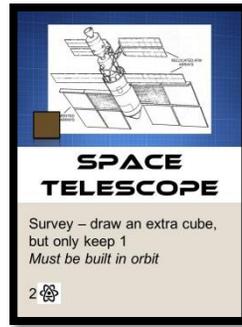
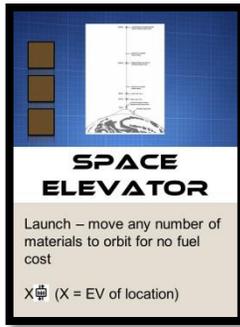
- Warehouse – on a player board inside location graphic (owned by player)
- Orbit – on a player board outside of location graphic (owned by player)
- Shuttle – on shuttle marker (owned by player)
- Survey – on a survey space, available for mining by any player
- Market – on market space, can be purchased by any player

If materials are in orbit or in a shuttle, it can always be sent to the planet/location surface for free and as a free action. A shuttle does not have to land on the surface to deliver materials.

Also, if materials are in orbit and a player wishes to start construction on something in orbit, no shuttle is required to move materials.

Equipment Cards

Equipment cards represent all the items players can build throughout the game.



Each card has a type (lower left) and a tech level (next to type). Each piece of equipment also provides a special ability during a certain type of action noted on the card.

Mortgages

Each piece of equipment also has a mortgage value associated with it that will determine its worth at the end of the game (\$5).

Orbitals

Some equipment cards are made to orbit locations (specified on equipment card). When building orbital structures, a player may only build them around planets, not the moon or asteroids.

When delivering materials to build an orbital structure, the materials cannot be on the planet surface and must be launched into orbit first.

Shuttles

Vehicles can be built by players to move materials, colonists, and items around the board. Each player has access to 4 shuttles during the game. All shuttles start on Earth and cost \$1 to build on Earth or at a factory at any location.

Shuttles can be in one of several locations:

- Map (space) – in between destinations on an empty space
- Map (location) – if the shuttle is on the map, it is in orbit around the planet/asteroid

- Player Board (orbit) – if the shuttle is on the player board, but next to a planet or location, it is considered in orbit
- Player Board (location) – if the shuttle is on the player board on a specific location, it is considered to have landed on the planet/asteroid surface and requires a launch action to leave

Companies

1. SpaceY
2. Matron Galactic
3. Going
4. Green Origin
5. SpaceBus
6. Finite Space Dynamics
7. Mars Express
8. Inner Space Industries
9. India?
10. China?
11. Brazil?
12. Africa? – Akinya Industries?

Company Cards

Each company has a unique ability and starting situation.



Player Marker

Each company has a player marker in their color to mark initiative turn order.

Claim Token

Each player has 1 claim token that is used to mark the asteroid where they have a claim. It may only be placed once per game. Once claimed, only that player may collect materials, build, or deliver there. If a player visits an asteroid by landing a shuttle on its surface, they may place their claim token.

Stock

Each company has 10 stock certificates. At any time their turn, a player may sell 1 stock certificate for \$6. They are worth \$10 at the end of the game. Stock may never be recovered.



Money

Money comes in several denominations:

- Yellow – \$1B
- Green – \$3B
- Blue – \$10B

Player Aids

Each player gets 1 player aid.

Setup

1. Place the board on the table
 - a. Place planets in correct rings, move random number of spaces (draw equipment card, move planet number of spaces equal to the tech level times the distance from the sun)
 - b. Set out 4 starting colonists

- c. Set out 2 random starting materials per location (redo matching colors) in survey area
2. Players take pieces
 - a. All company stock
 - b. Money – according to company card
 - c. Action Cards – 5 action cards
 - d. Player board
 - e. Asteroid claim marker
 - f. Equipment, if any
 - g. Shuttles –place on Earth
 3. Shuffle equipment deck
 - a. Place 4 cards face up next to equipment deck
 4. Draw 2 planet cards for end of turn production

Round

Each round is 3 phases:

1. Choose Actions
2. Take Actions
3. System Update

Choose Actions

Each player simultaneously chooses 2 action cards from their hand and places them face down on the table. These will be the actions selected for the round.

Take Actions

Once all players have selected their actions, reveal cards and play in numerical order. If two players have chosen the same action, they are resolved in turn order.

Card Actions

1. Influence
2. Survey & Mine
3. Research
4. Build
5. Launch

Influence

Take \$3 from **supply** and add it to your cash on hand.

Next, take \$3 from **subsidy** and add it to a colonist, colonist destination (any spot), or materials destination (specific market spot). It may not be placed on the same spot as a current subsidy. The player that takes that colonist first, or delivers a colonist or material to that destination, can immediately take the money as well.

Finally, move your player token to the front of the turn order. If already at front of turn order, you may also place your asteroid claim token on any unclaimed asteroid.

Survey & Mine

Players do not have to survey and mine in the same locations. After completing a survey, a player may take up to two mining actions.

Survey

Choose a location other than Earth, then draw 2 random cubes from the bag and place them on that location's survey box. If a cube that matches the color of the location was drawn, place it on Earth instead.

Mine

Pay \$1 and move 1 cube from a survey box to the warehouse of the location that it was surveyed on. Players may not mine on asteroids that they do not have a claim for.

Research

Take 1 card from available face up cards. Then, if desired, take one of the following actions

- Draw the top card of the equipment deck
- Take the top card from the equipment discard pile
- Change shuttle technology by moving one space on technology track

Build

Place as many equipment cards in play as desired:

1. Pay Development – pay cards equal to the technology level of the equipment card (minimum 1).
 - a. Reduce development cost for card by 1 for each card in play with a matching symbol.
 - b. If another player has a card in play with a matching symbol, you may pay them \$1 to reduce development cost by 1 card.
2. Put in Service – place the equipment card next to player mat at the location that the equipment was built.

New equipment may be used immediately.

Launch

When planning a launch, players may:

1. Accept Colonist – accept at most 1 colonist on a shuttle, take the piece from the board and place it on a shuttle that is on Earth, then take money equal to the leftmost value of destination
2. Load Materials – move materials from a warehouse to a shuttle, as long as it is in the same location, up to 3 cargo may be put on a shuttle

Next, choose a shuttle with cargo (each materials cube and colonist counts as a single cargo). Pay the fuel cost (minimum 1) for that shuttle to reach orbit equal to the escape velocity of the current location (marked on player board) times the number of cargo.

$$\text{Fuel Cost} = \text{Escape Velocity (of location)} \times \text{number of cargo}$$

Pay the fuel cost to the supply and put shuttle into orbit with cargo.

Players may combine different types of equipment to complete a launch, but may only use each type of equipment once per turn (identical equipment owned by another player may not be used, but a different type is open for negotiation). A player may lend out their equipment on another player's turn and then use it again on their own turn.

When taking the Launch action, players may perform as many launches as desired (max 1 colonist per shuttle).

When putting materials already in orbit onto a shuttle already in orbit, no launch action is needed.

Free Actions

On a player's turn, they may also take a variety of free actions. At any point during a player's turn (before, during, or after their action), they may take a free action.

- Deliver Colonists
- Sell Materials
- Buy Materials
- Buy Shuttles
- Sell Shares

Sell Materials

Move as many materials as desired from your warehouse (or shuttle in orbit) and place it on the market of the location (must match color) and take the money from supply according to its sale price (the space covered).

If a shuttle is in orbit around a location, it can freely deliver materials to the warehouse at that location without landing on the planet. If in orbit around Earth, it can freely deliver resources to the Moon as well.

If selling to an unclaimed asteroid, you may place a claim token.

Deliver Colonists

Move as many colonists as desired from your warehouse (or shuttle in orbit) and place it on the destination location (must match color). Shuttles do not have to land on a location's surface to deliver colonists.

If delivering to an unclaimed asteroid, you may place a claim token.

Collect \$6 for each colonist as it is delivered.

Buy Materials

At any point during a player's turn (before, during, or after their action), they may purchase materials from a market. Buy up to 1 available materials cube and place it in warehouse (player mat) at the corresponding location. This

material may be used the same turn it is purchased. This cube must be purchased at the market at current cost (spot uncovered when purchasing).

Materials may not be collected on an asteroid until that asteroid is claimed by that player.

Buy Shuttle

Shuttles may be built on Earth for \$1 or any other location for \$3. When building a shuttle, players may remove an empty shuttle from anywhere on the board and place it where it is being constructed. Players may build as many shuttles as desired on their turn.

Sell Shares

Sell shares for \$6 each. Shares may never be repurchased.

System Update

After all players have performed their two actions, perform system update phase.

1. Movement
 - a. Move planets – move each planet one space **counter-clockwise in its orbit**, move shuttles currently in orbit with the planet (players may choose to exit orbit and leave shuttles behind at no cost)
 - b. Move shuttles – In turn order, move each shuttle
2. Production – Draw 2 planet cards from the planet deck, for each:
 - a. Consume 1 materials cube from market (put in bag)
 - b. Perform production abilities at current location
3. Upkeep
 - a. Put \$3 on subsidy spot on board
 - b. Put out 2 new colonists
 - c. Clear equipment cards and place new cards out

Shuttle Movement

Each shuttle may move – in player order, each player may move each shuttle up to its maximum number spaces.

Name	Move	Notes
------	------	-------

Hydrogen Rocket	2	Starting technology
Ion Thruster	3	
Nuclear Pulse	3	
Solar Sail	4	Move beyond Mars orbit is 1
Fusion Rocket	6	May not move within 2 spaces of Earth

Gravity Assist

If a shuttle moves into (not out of) the same space as a planet (not an asteroid or moon) on its turn, it may move an additional space during its movement. If the shuttle moves through several planet locations, it may move an equal number of extra spaces that turn.

Production

Completed equipment may be run once for its effect (per card).

Warehouses have a limit of 6 materials.

If all planet cards have been drawn, shuffle the discard deck and draw a card.

Deal Making

Players are encouraged to make deals and trade at any time. Players may exchange money, materials, stock, equipment cards (completed or not), or anything else. If materials or colonists are traded, they must stay in their current location. That is, if a player trades 1 stock for 2 green materials, the materials move from player A's warehouse on Venus to player B's warehouse on Venus, they do not suddenly appear on Earth.

Game End

The game ends when any condition is met:

1. 3 locations are completely colonized
2. 3 location markets are completely full

Once the end game condition is met, finish the current turn. Even if the game end condition is undone, the current turn is still the last.

Finally, add up the value of all stock, mortgages, and cash on hand to determine the winner.

Advanced/Optional Rules Ideas

Bid for initial turn order

IPO for stock

5th player asteroid – Juno?

Influence action to put out colonist?

Long game – 4 planets colonized?