

TINYforming Mars v 1.0a

by: Michael Bevilacqua

DISCLAIMER: This is a fan-made miniaturization inspired by Jacob Fryxelius' game, Terraforming Mars. This game was made with no consultancy or assistance from FryxGames. No files were provided or copied, nor was any consultation requested/given. This fan-made game is not endorsed by, sponsored by, or affiliated with FryxGames. Neither Michael Bevilacqua nor TINYforming Mars are sponsored by or affiliated with FryxGames.

TINYforming Mars is a 1-2 player game set in the distant future; where mankind has mastered the technologies needed to turn our lifeless neighbor, Mars, into a thriving destination for mankind.



Components:

1. Project Cards x 7 – Project Cards are drafted each Generation (round) by the players. The Projects they provide are used to complete terraforming parameters.
2. Map Cards x 2 – The Map of Mars is made up of two double sided cards. One side of the cards shows the Tharsis Board and the other side offers the Elysium Board.
3. Credit Cubes x 10 – Credits are used to activate Projects and Standard Projects. They are gained at the end of each Generation.
4. Player Cubes: White x 3, Black x 3 – Each player gets 3 cubes of his color. Two of the cubes are for placing cities on the Map and the other cube is placed on the Standard Project area of the Map to show that a player has activated thier, “once per generation”, Standard Project.
5. Parameter Cubes: Heat (Red) x 11, Greenery (Green) x 7, Water (Blue) x 4 – The players will either gain Heat Cubes or place Greenery and Water cubes onto the Map. The players will perform Projects or Standard Projects to gain or place these cubes. When the supply of 2 out of the 3 types of cubes have been exhausted, the end game will trigger and that will be the final Generation.
6. Resource Tokens: Nature x 2, Production x 1, Science x1 – Resource Tokens are acquired from certain Projects and by placing Water cubes on certain hexes on the map. They can be used to complete Projects in the current or future Generations.

Objective: Each player is attempting to terraform Mars by completing projects that fulfill one or more of Mars' parameters for sustaining life; those being: Heat, Oxygen (provided by Greenery), and Water. The player that is able to complete more projects towards this goal, as well as, build their cities on prime Martian real estate, will be the winner.

Game Flow: The game takes place over several rounds, known as Generations, in which players will alternate taking turns. First the players will draft Project cards that offer the Projects that they will have access to. Then, on a player's turn, he can complete one of his own Projects, one of the Standard Projects, or pass. When both players have passed, the Generation is over and players collect income to begin the next Generation.

End Game: The three parameters: Heat, Greenery, and Water are represented by Red, Green, and Blue cubes, respectively. The players will acquire or place these cubes by completing Projects and Standard Projects. When the supply of at least 2 of the 3 types have been exhausted or there are no vacant hexes on the map, that Generation will be the final Generation of the game. Once that Generation is over, the players will count their scores. Highest score wins.

Setup:

1. The players will decide if they want to play the Tharsis Map or the Elysium Map and place the two corresponding Map cards so that the map of Mars is complete.
2. The players will randomly determine who will be the White player and who will be the Black player. The White player will be first in the odd Generations (rounds 1,3,5...) and the Black player will be first in the even Generations (rounds 2,4,6...). Each player takes the 3 corresponding cubes that match the color they are playing as.
3. Each player takes 5 Credit cubes (Yellow).
4. The 3 types of Parameter cubes (Red, Green, and Blue) are placed off to the side of the Map to create a supply.
5. The 4 Resource Tokens (Nature, Production, and Science) are placed off to the side of the Map to create a supply.
6. Take the 7 Project cards and shuffle them. Since the cards are double sided, randomly turn some of them over while shuffling for additional randomization. Once shuffled, place them on the side of the board to create a Draw Deck.
7. The White player draws and flips over the first Project card and determines which side will face him and which side will face the Black player. The Black player draws and flips over the second Project card and determines which side will face him and which side will face the White player. Finally, the White player draws and flips over the third Project card and determines which side will face him and which side will face the Black player.
8. The Black player places one of his Black cubes in any hex, not reserved for water, to be the starting location of his first city. The White player then places one of his White cubes in any hex, not reserved for water and not adjacent to the hex occupied by the Black player's city, to be the starting location of his first city.
9. The game begins with the White player.

Parameters: The three parameters: Heat, Greenery, and Water are what terraforming Mars is about. They are represented by Red, Green, and Blue cubes, respectively. They are acquired by activating Projects and Standard Projects. When at least 2 out of the 3 parameter cube types have been exhausted from the supply, the end game has triggered and that will be the final Generation.



Heat – When a player gains a Heat cube, he takes a Red cube from the supply and adds it to their own personal supply. Each Heat cube in a player's personal supply is worth 1 victory point at the end of the game. A Heat cube on the map is worth negative 1 point to any city adjacent to that Heat cube.

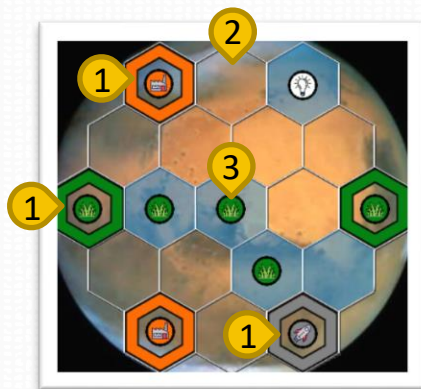


Greenery – When a player places a Greenery cube, he takes a Green cube from the supply and adds it to a vacant hex on the map that is not reserved for water. A hex that is not reserved for water is any hex that does not have a light blue background. Each Greenery cube that is adjacent to a city, scores that city's owner 1 victory point plus 1 additional victory point if that Greenery cube is adjacent to only one player and not both during end game scoring.



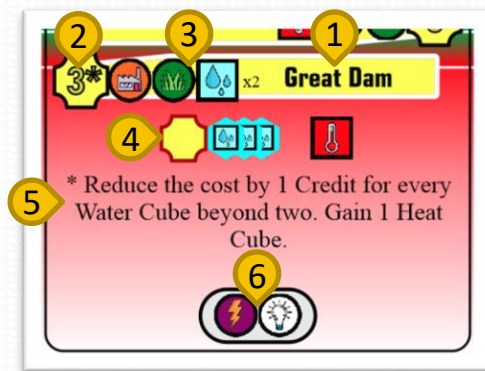
Water – When a player places a Water cube, he takes a Blue cube from the supply and adds it to a vacant hex on the map reserved for water. A hex that is reserved for water has a light blue background. When placing a Water Cube, if the hex has a tag, gain a matching Resource Token from the supply if there are any available. In addition, if the Water cube is placed adjacent to any other Water cubes, the placing player gains 1 Credit for each adjacent Water cube. During the Income Phase of a Generation, a Water cube adds 1 to the income of each adjacent city. Each Water cube that is adjacent to only one of the two players is worth 1 victory point to that player at the end of the game.

Map – The map of Mars is made up of 19 hexes. There are 14 hexes that can have Greenery cubes or City cubes and 5 hexes that are reserved for Water cubes.



1. Bonus Hex – A Bonus Hex has a tag in the center and a thick border matching the color of the tag. If a player places one of his cities in a Bonus Hex, it will count as having one of that tag for as long as his city is there. There are 5 Bonus Hexes.
2. Empty Hex – There are 9 Empty Hexes that offers no additional benefit.
3. Water Hex – A Water Hex has a light blue background. If a player places a Parameter cube in a Water Hex with a tag icon, he gains the matching Resource Tag.

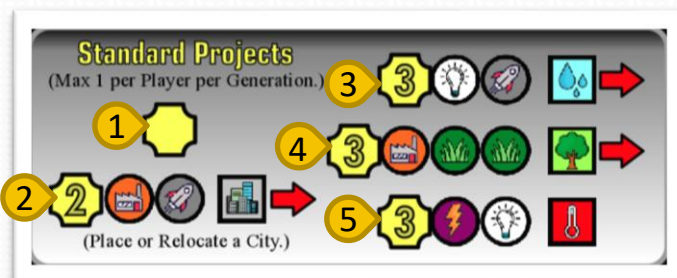
Project Cards: On a player's turn, if he meets all the requirements of one of his Project cards, he can activate that Project card in order to perform that card's ability. These abilities usually allow the player to gain a Heat cube or place a Greenery or Water cube on the Map. The effectiveness of a player's use of Project cards will help him win the game. A player can only activate each of his Project cards once per Generation.



1. Project Name – The card's identifier.
2. Cost – Each Project has a cost in Credits. If the Cost has an * after the number, the cost can be reduced by an effect of the Project. When paying to activate a Project, the player must place 1 Credit of the cost on the Project to show that he has used that Project this Generation. Any additional Credits used in the cost should be returned to the supply. If a player gains Credits during an Action Phase, he is not allowed to take any Credits that have been placed on Project cards.
3. Requirements – Each Project requires that you have access to a certain number and type of tags. The tags can come from any combination of your other Project Cards, your cities on bonus hexes, and spending Resource Tokens. In addition to the tags, some Projects also require that a certain number of Heat cubes be accumulated by the players. This requirement uses the combined amount of both players' personal supply of Heat cubes plus any Heat cubes on the map. If a Project requires a certain number of Greenery or Water cubes, those cubes must be on the map.
4. Effect Icons – The ability of the project is depicted in icons for quick reference. The background of the card also indicates which of the three parameters the project will help complete. Red for Heat, Green for Greenery, and Blue for Water. There is also a Grey background that will not complete one of the parameters but it will offer some other kind of ability.
5. Effect – The ability of the Project card is described in words to correspond with the Effect Icons. If there are no available Parameter cubes that match the corresponding Project, that Project cannot be activated. **IMPORTANT** – The text of a Project card supersedes this rulebook.
6. Available Tags – Each Project card immediately offers 2 tags that can be used to meet the requirements of your other Projects or a Standard Project. You do not have to complete the Project to gain the tags the Project provides. The 5 tag types are: Energy (lightning bolt), Production (factory), Nature (grass), Science (lightbulb), and Space (rocket).



Standard Projects – Once per Generation, a player can complete one of the five Standard Projects if he meets all of the requirements of the chosen Standard Project. When a player activates his Standard Project, he places one of his Player cubes on the Standard Project spot to show that he cannot activate another Standard Project this Generation. Most of the Standard Projects have a cost and tag requirement similar to Project cards.



1. Sell Patent – The player gains 1 Credit. There are no requirements or cost for this. If there are no Credits in the supply, a player cannot take this Standard Project.
2. Found City – A player may place or relocate one of his Player cubes on the map as a city, observing the following rules:
 - a) A player is limited to 2 cities.
 - b) A player must place his city in a vacant hex on the map.
 - c) A player cannot place a city in a hex reserved for water (light blue background).
 - d) A player cannot place a city adjacent to any other city.
 If a player has already placed his cities, he may take this Standard Project to relocate one of his cities to a new hex, observing all the same placement rules.
3. Import Water – The player can place an available Water cube from the supply onto a vacant hex reserved for water.
4. Greenhouses – The player can place an available Greenery cube from the supply onto a vacant hex not reserved for water.
5. Energy Farms – The player gains an available Heat cube from the supply.

Resource Tokens – When a Parameter cube is placed in a space reserved for a Water cube that has a tag icon, the placing player gains a Resource Token matching that icon from the supply. If there are no matching Resource Tokens available, the player gains nothing. A Resource Token can be spent by returning it to the supply when a player needs that matching tag for a Project or Standard Project.

Some Projects offer the activating player their choice of an available Resource Token. When this ability is activated, the Resource Token comes from the supply. The three types of Resource Tokens are Nature, Production, and Science.



Generations – The White Player begins odd Generations and the Black Player begins even Generations. Each Generation (round) the following phases happen in this order:

1. Research Phase (skipped in the first Generation because it is part of Setup) – The players will alternate drawing Project cards until there are three placed.
2. Action Phase – The players will alternate performing Projects or a Standard Project until both players have Passed.
3. Income Phase – The players will collect income from their cities. If the supply of Parameter cubes have been exhausted from at least 2 of the 3 types or there are no vacant hexes on the map, the game is over and final scoring takes place.

Research Phase – The first phase of each Generation (except the first) is the Research Phase. During this phase, the players will draw the Project cards that they will have access to that Generation. Starting with the Generation's start player, he will draw a Project card from the Draw Deck, flip it over, and decide which Project will face him and which Project will face his opponent. The second player repeats this process for the second Project card. The starting player then repeats this process for the third and final Project card. At the end of the Research Phase, each player will have access to only the 3 Projects that are facing them.

Action Phase – The second phase of each Generation (except the first Generation, which begins with the Action Phase) is the Action Phase. Starting with the Generation's start player, he will either complete one of his Projects, a Standard Project, or Pass. After he takes one action, the second player will take one action. Actions will be taken, one at time, between each player, until one player passes. After a player passes, he can no longer take any actions during that action phase. The player who has not passed, can continue taking actions until he passes as well.

In order to play a Project or a Standard Project, the player must have the required tags, Credits, and meet any Parameters listed. If a player cannot meet all of the requirements, he cannot activate the Project or Standard Project. **Note:** He still has access to the tags provided on the bottom of his Project cards regardless of if the Project is activated or not.

Reminders: A player may never complete the same Project twice in the same Generation. A player may only complete 1 Standard Project per Generation. If a player should gain Credits because of an action and there are less than the number that should be received available from the supply, he receives as much as is in the supply and the rest are lost. Credits placed on Projects are not removed during the Action Phase.

When both players have passed, all Credits on Projects are returned to the supply. The Project cards for the Generation are returned to the **bottom** of the Draw Deck, **face up**, in the **same order** that they were drawn.

Income Phase – The third and final phase of each Generation is the Income Phase. Starting with the Generation's start player, he will collect 1 Credit for each of his cities. He will also collect 1 Credit for each Water cube adjacent to each of his cities. A Water cube touching both of a player's cities counts for each of those cities. After the start player has added his Income Phase Credits to any Credits he did not use during the Action Phase, he must return to the supply all Credits above 5 (Martian taxes are severe). The second player then collects his Income Phase following the same rules. A player can never have more than 5 Credits at the end of the Income Phase.

If the supply of Parameter cubes have not been exhausted from at least 2 of the 3 types and there is at least one vacant hex on the map, the next Generation begins and the start player will shift to the player who was not the start player during the current Generation.

If the supply of Parameter cubes have been exhausted from at least 2 of the 3 types or there are no more vacant hexes, the game is over and final scoring takes place.

End Game – Once the last Generation has completed, the players will calculate their scores and determine the winner. A player's score is determined as follows:

Cities – Each city scores:

1 Point for every Greenery cube adjacent to it.

-1 Point for every Heat cube adjacent to it.

Greenery & Water cubes – Greenery cubes and Water cubes score:

1 Point to the owner of a city adjacent to it if it is only adjacent to one of the two players and not both.

Heat cubes – A Heat cube scores:

1 Point for each Heat cube in the player's personal supply.

Tie Breaker – If both players have the same score, compare the following until one player has more than the other player in this order:

1. Points provided by Cities.
2. Points provided by Greenery cubes.
3. Points provided by Water cubes.
4. Points provided by Heat cubes.

[OPTIONAL] – If players want a more intense game, apply the following rule. During setup, arrange the Parameter cubes in a straight line by type. First arrange the 7 Greenery cubes, placing 1 of the Heat cubes with the 4th Greenery cube. Second, arrange the remaining 10 Heat cubes, placing 1 of the Water cubes with the 8th Heat cube. Lastly, arrange the remaining 3 Water cubes.

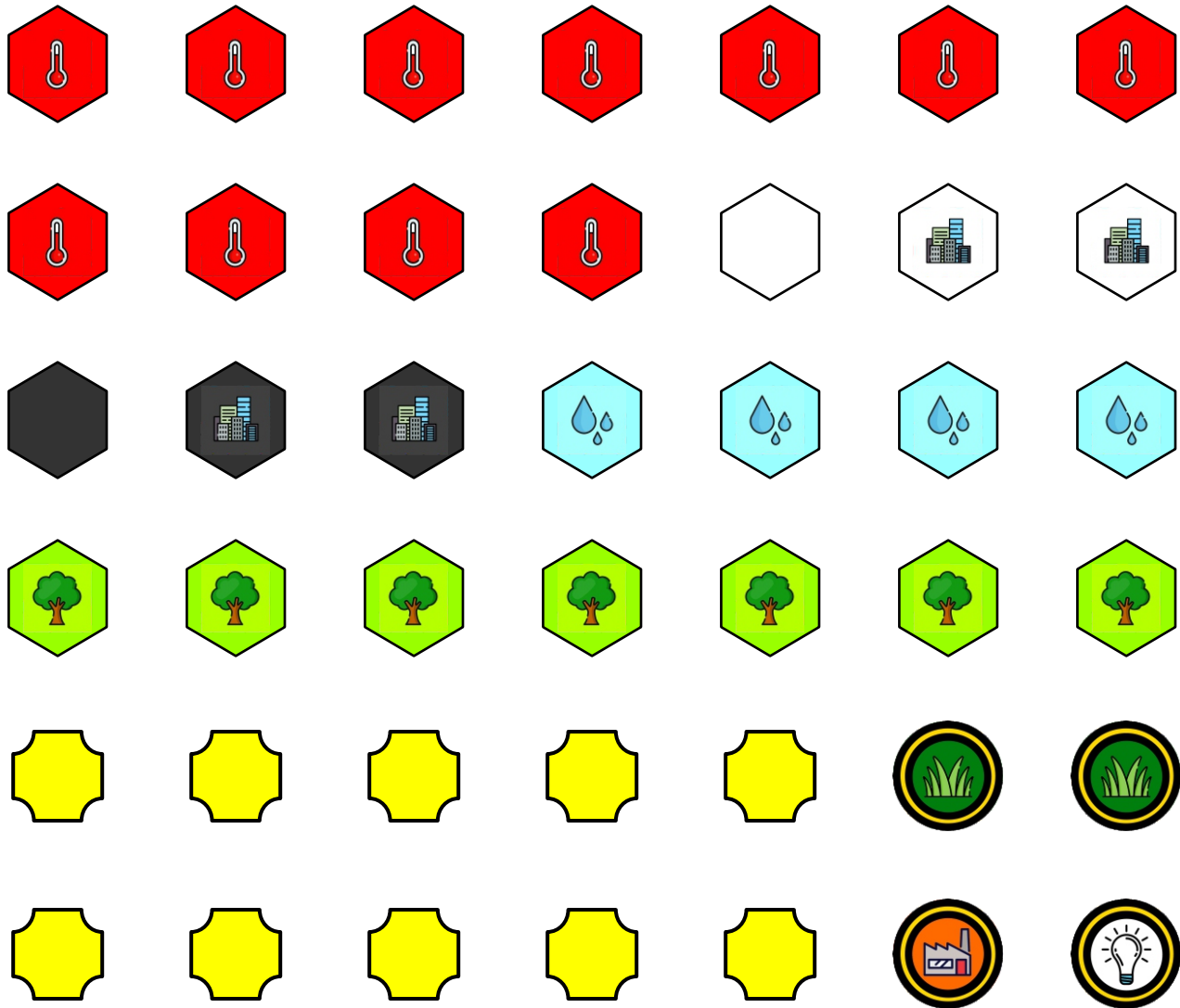
When a Parameter cube is taken from the supply, it is taken from the leftmost available Parameter cube of its type. When a player places the 4th Greenery cube, he also gets the Heat cube that was placed with it. When a player gains the 8th Heat cube, he also gets to place the Water cube that was placed with it.

If the 11th Heat cube or 4th Water cube is needed because of a Project or Standard Project, and it is still attached to the Greenery or Heat cube, respectively, remove the needed cube and the bonus placement will no longer apply to that Parameter.

Solitaire Play – All the rules for a 2 player game are used with the following exceptions:

- During Setup, place 1 of the Black cubes and 5 of the Credit cubes off to the side to keep track of the Generations (explained below).
- During Setup, after shuffling the Project Cards, flip and reveal 1 of them. Of the 2 Projects shown, take the lower Cost and count that number of spaces starting from the top left most hex and moving left to right, top to bottom, skipping spaces reserved for water, placing 1 of the Black cubes in that hex. Then, taking the higher Cost, count that number of spaces starting from bottom right most hex and moving right to left, bottom to top, skipping spaces reserved for water, placing the other Black Cube in that hex. These are the dummy player's cities and will not move for the remainder of the game. Place the Project card that was used, face up, on the bottom of the Draw Deck.
- The player is the White player and will go first in every Generation and is strictly limited to 5 Credit cubes.
- During the Research Phase, the player decides which Project cards will face him for all 3 Project cards. He gets to arrange them after seeing all 3 cards. During the Action Phase, the dummy player automatically passes.
- During the Income Phase, the dummy player collects no income.
- The player has 12 Generations to complete the goal of exhausting all 3 types of Parameter cubes. To keep track of the Generations, for the 1st-5th Generations, place 1 of the unused Credit cubes on the Standard Project section of the map for each Generation. When you get to the 6th Generation, instead use the Black cube. For the 7th-11th Generations, remove 1 of the unused Credit cubes from the Standard Project section of the map for each Generation. For the 12th and final Generation, remove the unused Black cube.

Special play tester thanks to Shane Fletcher, Mike Vande Ven Jr., Cheryl Leon Levy, and Robert Konigsberg.



Assembly Instructions:

* Combine card pages 1 and 2 back to back to form the nine cards. You'll know you've done it correctly if the two maps are touching each other back to back.

* Use the above images to create tokens for any components that you cannot provide a more suitable alternative. (Note: the game will reference cubes but if you are using the tokens as substitutes, treat them like cubes for all game play purposes.) From left to right, the tokens are: Heat Cubes (x11), White Player Cubes (x3), Black Player Cubes (x3), Water Cubes (x4), Greenery Cubes (x7), Credit Cubes (x10), and Resource Tokens (x4).