

MINE ^{THE} MOON

by Dan Cunningham

Rulebook

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During the Lunar Nectarian period, a huge impact shook the moon, creating the crater now called Mendeleev. Over 3.9 billion years later, man discovered that whatever made that impact contained very rare and very valuable materials. In no time corporations had already landed Moonbases and were using teams of robot miners to dig it up, all with the plans to get rich quick!

Mine the Moon is a strategy game of racing to become the most dominant mining entity on the moon. Players take the roles of AIs tasking worker robots among buildings on their moonbases and on shared locations across the lunar surface. They will mine resources and then export those resources off-world to grow their dominance, or use those resources to upgrade their mining bases with more or better buildings. But beware, the resources on the moon may not be endless...

Gameplay, Goal

Mechanically, each turn consists of three main phases: **Task**, **Mine**, and **Work**. First players **Task** groups of their robots (teams) to Buildings to perform those Buildings' actions. Next all robots not Tasked elsewhere will **Mine** in the Crater where they might return carrying resources of three types (Buckyballs, Graphene or Nanotubes) and of two states (raw or refined). Finally the previously-Tasked robots will do their **Work**, performing the actions of their Buildings and returning to their Moonbases (potentially carrying resources from Building actions). Later, all acquired resources will be used to construct new or upgrade existing Buildings, exported on rockets for Dominance (points), or stored in Silos for use later.

When a player has earned greater than 40 ♦, the turn is finished and one final turn is played, after which the **player with the most ♦ wins**.

Game Setup

COLLABORATIVELY:

Assemble the **Lunar Surface board** in the center of the table: first place a **1 Crater mat** (A/B/C/D, see Appendix 2) in its location on the Lunar Surface. Next stack the appropriate quantity of each of the **2 Building tiles** onto the designated Available Buildings spots (quantity shown next to the player number). Shuffle the **3 rocket cards**, place the "Rocket Supply" cover card on top, and deal one from the bottom to active Launchpads (A/B for 2-3 players, A/B/C for 4-5 players), rocket-side up. Place the rocket deck on the designated spot below Launchpads. Finally place the white **4 Subsidized robot** in the Subsidy box.

Whenever dealing Rocket cards, always deal from the bottom.

INDIVIDUALLY:

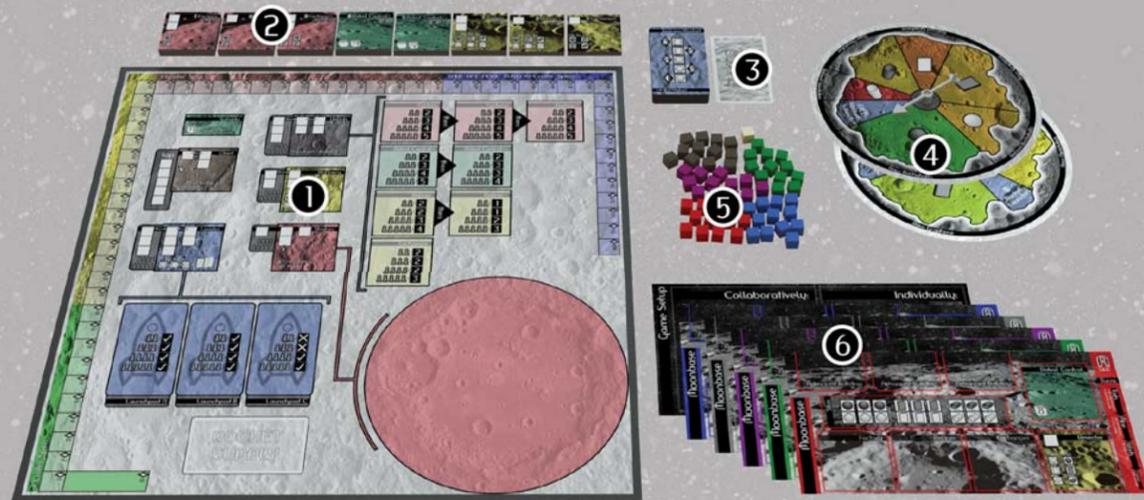
While assembling the Lunar Surface, each player should: choose a color and take all components in that color (**5 Moonbase mat**, 12 **robot cubes**). Place their Moonbase in front of them (A/B side showing, see Appendix 2), place 1 robot each on the zero of the **6 Dominance ♦ track** and the **Priority track** on the Lunar Surface. Place 8 robots on the **7 Robot Control Building** on their Moonbase. **8 Spin the Crater twice** (re-spinning if it stops on "All Rockets Launch"), and move one robot per spin to the spun resources in your Moonbase's Silo.

Once all Moonbases have been assembled, shuffle the order of robots on the **9 Priority track**. Return all unused parts to the game box.

Moonbase A-sides are identical but B-sides are different variations. See Appendix 2.

Components:

- 1 1x quad-fold Lunar Surface gameboard
- 2 34x Building tiles
- 3 40x Rocket / Advanced Building cards [39x rockets, 1x cover card]
- 4 2x double-sided Crater spinner mats
- 5 61x wood Robot cubes [12x/color, 1x white]
- 6 6x double-sided Moonbase mats [1x/color, 1x Game Setup Aid]



2

Game Setup:

Collaboratively

- 1 Assemble/place Crater (A/B-side)
- 2 Place appropriate number of Buildings
- 3 Shuffle and deal rockets to Launchpads
- 4 Add the white cube to Subsidy

Individually

- 5 Take Moonbase (A/B-side) and 12 cubes
- 6 One cube on Dominance Priority, tracks
- 7 Cubes on Robot Control, return the rest
- 8 Spin Crater twice, gain those resources



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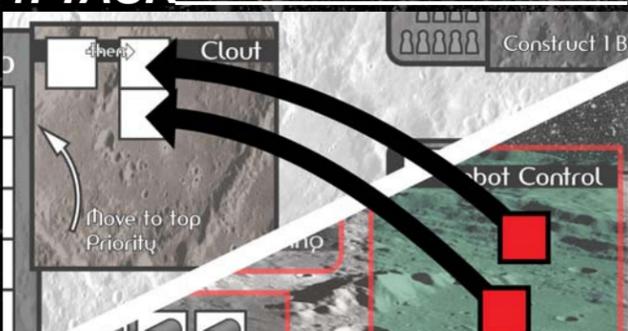
Turn Sequence



Each turn utilizes the same three main phases mentioned on Page 2, plus a clean-up (Launch) phase. These are always performed in the following order (also shown vertically along the right side of each player's Moonbase):

- 1. TASK:** In turn order, players assign one robot team at a time to Buildings on the Lunar Surface or on their Moonbases until all players pass
- 2. MINE:** Simultaneously, players send all of their remaining robots to the Crater, it is spun a number of times, and some robots find resources
- 3. WORK:** Simultaneously, players return their robot teams from Buildings and perform those Buildings' actions in any order*
- (4. LAUNCH):** If any rockets are full, they are scored, robots returned, and Advanced Buildings on back become available; also Subsidized robot is moved (if applicable)

1. TASK



In priority order (determined by the order of player robots on the Priority track) players **Task** ONE group of robots (team) at a time to Buildings either on the Lunar Surface or on their Moonbases, to eventually utilize the Buildings' actions. This is done by tak-

Players must take turns tasking robot teams to Buildings.

*always abiding by a Building's L > R Working order

ing a number of robots equal to the number of white boxes in a single column (in the upper-left) of a Building, and placing them in those empty boxes. The player must **Task** a sufficient number of robots to fill all boxes in a single column on the Building, and in cases of common Buildings with more than one column of boxes, the player can choose to fill any set (but columns are Worked in left-to-right order).

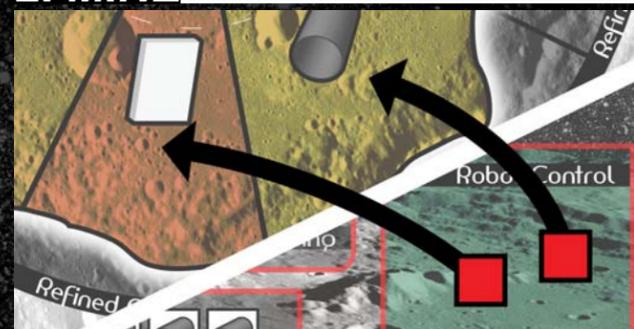
Players must always Task full robot teams to Buildings.

Players may Task robot teams to any Building column first.

In most Lunar Surface Buildings, an extra robot team can be Tasked on the far-left when playing with 4-5 players.

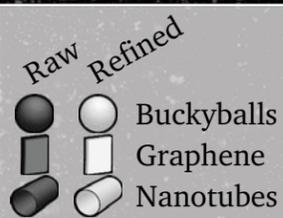
A player may pass on Tasking at any point, but once a player has passed, he/she cannot Task any more robot teams to Buildings that turn.

2. MINE



Players **Mine** for resources in the Crater, where robots are sent to find specific resource types (Buckyballs, Graphene, and Nanotubes) and states (raw or refined) by placing them in the corresponding wedge in the Crater.

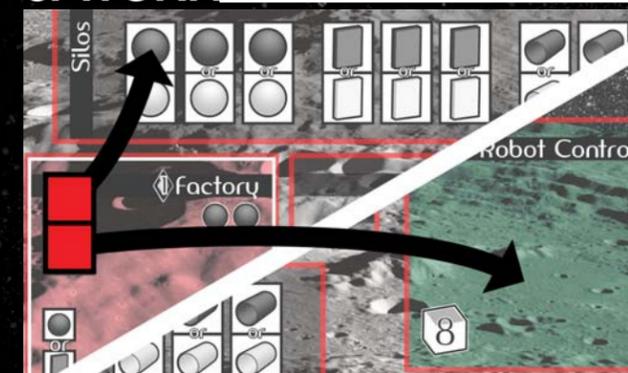
During the Mine phase, players simultaneously place any number of robots on any number of wedges in the Crater; there is no limit to the number of robots or number of players that can Mine each resource. Then, after all players have placed all remaining robots, any player spins the Crater a number of times shown by the position



of the most Dominant player (see Dominance Track detail on page 6). When the spinner stops, if it points to a wedge that contains robots, ALL of those robots are moved to their owners' Silos on their Moonbase in boxes corresponding to the found resource (if the Silo is full, instead they are moved to their Robot Control). After all spins, the robots that remain on the Crater are returned to players' Robot Controls.

Silos can only hold 3x of each resource type, regardless of state (raw or refined).

3. WORK



Finally, robot teams that were Tasked in the first phase of the turn perform the actions of their assigned Buildings. Each player can perform their actions in whatever order they choose, and will indicate they have completed the action by returning the Tasked robot team to the Robot Control on their Moonbase.

Generally players can perform all Work simultaneously, except when there are Lunar Surface Buildings that have been Tasked by more than one players' teams. In those cases, the player who Tasked robots on the farthest left must Work that Building first, and then continues in left-to-right order. Also, if there is a conflict about Working order on separate Buildings (two players want to see the result of the other's Work before making a choice on their own), Work decisions should be made in Priority order.

Players may always choose to skip their own Worked Building's actions.

If at some point a player has Tasked robots that either cannot do the Work or that

player does not want to do the Work, that player can return the robots without performing the Building's action.

(4. LAUNCH)



When, at the end of the turn, there is one or more rockets that are full (all resources are loaded), all of those rockets "launch": First score \diamond for each loaded resource and return the robots to Robot Controls. Then flip over the launched rocket(s) to their Advanced Building sides and set them next to the gameboard. Those Advanced Buildings are now available for construction at the Uplink (see Appendix 3: Advanced Buildings). Finally deal replacement rockets from the bottom of the rocket deck onto the active Launchpads (A/B for 2-3 player games, A/B/C for 4-5 player games).

Additionally, at the end of the turn the Subsidized robot ownership is verified. If the player with the fewest \diamond does not have the Subsidized robot, they take it (if on a rocket it does not score points, if in a Silo it "drops" the resource). If there are two players tied for fewest, place the Subsidized robot on the Lunar Surface Subsidy box.

Game End

As soon as any player has greater than 40 \diamond , players play and finish one additional turn (after finishing the current turn). The player with the most \diamond is the winner. In the case of a tie, the player with the most resources loaded onto Rockets wins. In case of a further tie, the player with the most resources in their Silo wins. Further ties can be considered a shared win.

The Lunar Surface

The Lunar Surface is the larger view of the area of the moon around players' Moonbases. It contains the following things:

DOMINANCE TRACK ①

All players start at zero on the track, and will progress forward. This track shows not only players' current number of points, but also how many times the Crater is spun each Mine phase (indicated by the zone of the player furthest ahead in the track, or the most Dominant player). Once a player has more than 40 Dominance, the current turn is completed and one final turn is played. The robots in the Dominance track will stay there for the entire game.

COMMON BUILDINGS ②

These common Buildings can be Tasked by all players' robots and cannot be upgraded. The Refinery can only be Tasked by a single robot team in 2-3 player games, and all others by two teams. In 4-5 player games most common Buildings can support an additional team of robots.

In Lunar Surface (common) Buildings, players must perform Work in left-to-right order.

PRIORITY TRACK ③

The order that players Task robot teams is determined by the players' relative Priority, which is shown on the Priority

track next to the Clout. This dynamic order can only be affected by the Clout, and when a player Works it, that player moves to top Priority and will Task first the following turn. The robots in the Priority track will stay there for the entire game.

SUBSIDY ④

At the end of every turn, if there is a single player who is the furthest behind in the Dominance track, that player will receive the Subsidized robot. This robot is treated like any other and can be used to Task or to Mine (and hold resources in Silos or rockets). At the end of a turn, if the player with the Subsidized robot is no longer the furthest behind in the Dominance track, he/she must give control of the Subsidized robot to the current single player furthest behind (if tied, the Subsidized robot is moved back to its location in the Lunar Surface). If the Subsidized robot is in a Silo or a rocket when control is lost or changes, it "drops" the resource.

If there are two players tied for fewest, the Subsidized robot is returned (or stays) in the Subsidy box.

AVAILABLE BUILDINGS ⑤

Buildings (both basic and Advanced) that can be constructed through Working the Up-

link appear in the spaces to the right. Some Buildings contain fewer copies than the number

of players, so they may run out.

Available Advanced Buildings can be fanned out to the right of the Building tiles.

Advanced Buildings are not immediately available at the beginning of the game. They only appear after a rocket has launched.

ROCKET SUPPLY ⑥

This is where the rocket deck is stored, with the cover card on top. Rockets should always be dealt from the bottom.

LAUNCHPADS ⑦

This is where the rockets that players will load are stored until they are launched. When a player Works the Loader, they take robots holding refined resources from their Silos and load them into open spaces on one or more rockets. The robots remain there until

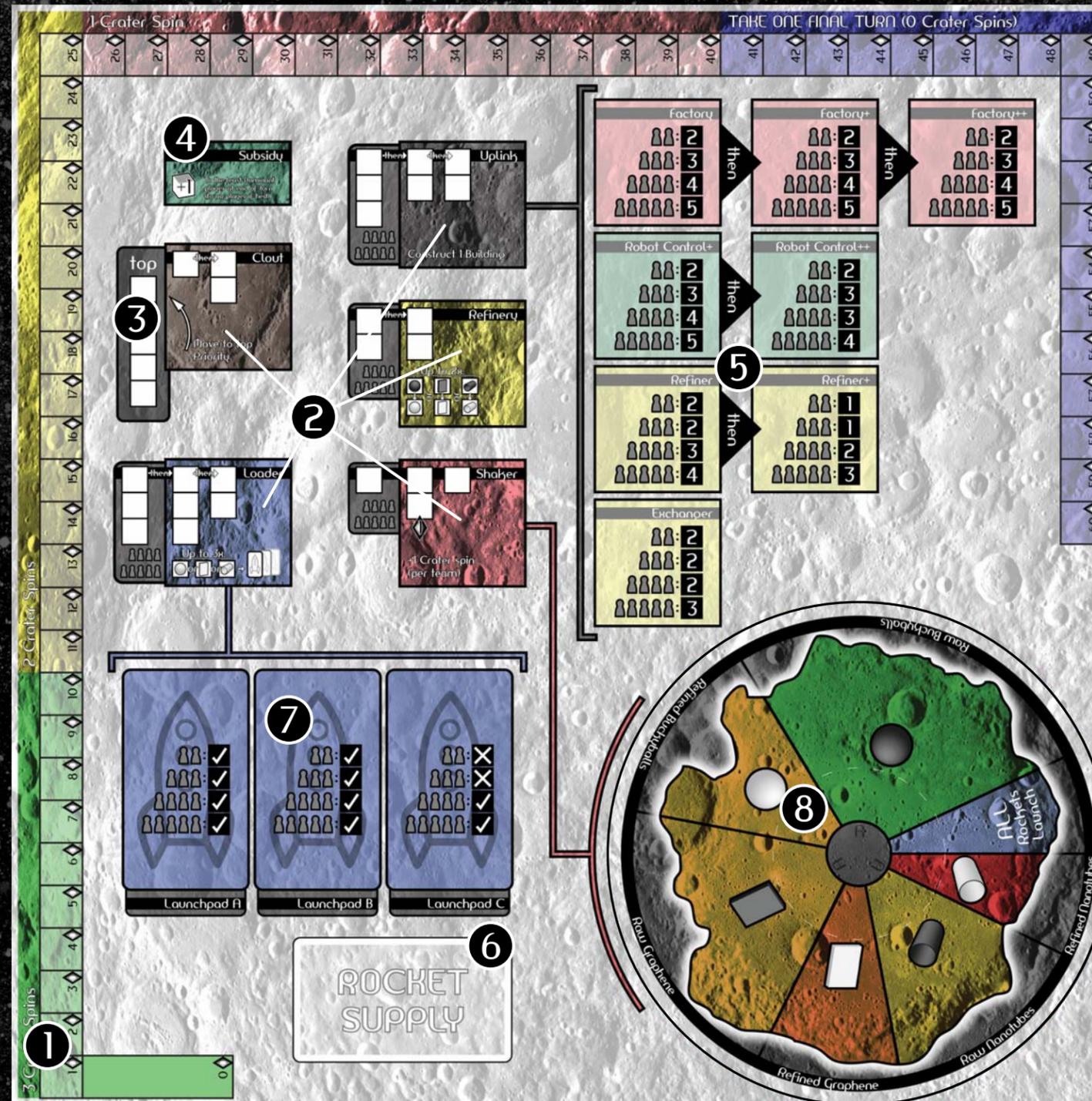
a) the end of the turn when a rocket is completely full; or
b) the Crater spinner stops on "All Rockets Launch" at which point robots on the launched rocket(s) immediately return to their Robot Controls and each score as indicated by the space where they were loaded. The launched rocket(s) are then flipped over to reveal their Advanced Building and are put next to the Available Buildings section, ready to be constructed.

Full rockets don't launch until the end of the turn.

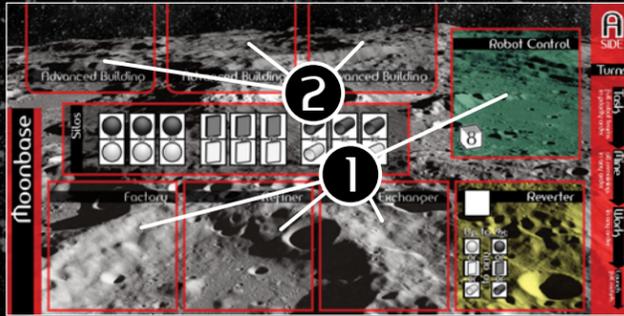
CRATER ⑧

During the Mine phase, this is where robots not Tasked elsewhere will be sent to search for resources. Here there are no limits to number of robots or players that can occupy each wedge.

When "Rockets Launch" is spun, all rockets (even empty) launch immediately (not at turn's end).



Player Moonbases



These are the players' bases of operations, which contain Buildings that they alone can use, as well as storing robots that have found resources. Robots not in use are kept here too.

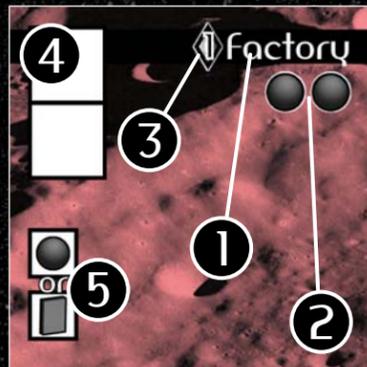
BUILDING SITES

When a player constructs a square (basic) Building, it must be placed on the Moonbase on the associated site. Building upgrades are stacked on top of the prerequisite Buildings.

ADVANCED BUILDING SITES

When a player constructs an Advanced Building (from the back of a rocket), they may place it on any Advanced Building site, including those already occupied by another Advanced Building. If over-building, the covered Building can no longer be Tasked, and its Ability is no longer active (but you do not lose the Construction Bonus).

Buildings



During the game, players will spend resources to construct or upgrade the Buildings on their Moonbases. Each Building is represented by a square tile. There are five categories of buildings, shown as different colors, each with a different general function.

- Pink:** generate raw resources
- Yellow:** convert between resources / states
- Green:** acquire and control additional robots
- Purple:** generate \diamond
- Blue:** exchange resources for \diamond
- Gray:** construct Buildings / Building upgrades

Each Building has a Name, a Construction Cost, a Construction \diamond Bonus, a Task Requirement, and an Action. Each of these are described in detail below (for specific rules and ability descriptions of each Building, see Appendix 1 on page 12).

NAME

A Building, once constructed, must be placed in the specific Building site in the Moonbase matching its name. In the case of Building upgrades (shown by + after the name), they require the previous Building level be constructed before they can be constructed.

Advanced Buildings exception: There are three Building Sites where a player can construct Advanced Buildings, in the upper part of their Moonbases. They can construct Advanced Buildings to any of the three sites, and can construct on top of existing Advanced Buildings (but the covered Buildings can no longer be Worked and lose all other always-active actions).

Players can construct new Advanced Buildings on top of their existing ones, but covered Buildings lose all of their Actions.

CONSTRUCTION COST

Each Building has a cost to construct in resources, shown under the name. For standard Buildings, this is always raw resources. This cost is paid when robots Work (not when Tasked) by moving the robots holding the appropriate resources from the Silo to Robot Control.

Advanced Buildings exception: Most Advanced Buildings require refined resources to construct. Their costs are paid in otherwise the same way as using all raw resources.

CONSTRUCTION \diamond BONUS

When constructed most Buildings give the constructing player some number of \diamond immediately. The amount is shown to the left of the name.

TEAM SIZE REQUIREMENT

When a Building's action is to be used, a team of robots from a single player is required. The number of robots in the required team is shown as boxes in the upper right of the Building.

ACTION

Buildings each have an action that may be performed when Worked (or is always active). That action is shown in the lower left.

Advanced Building exception: Statues have no actions and are constructed for their Construction \diamond Bonus only (thus are excellent candidates for over-building).

"Rockets Launch"). Then (and not before) do those robots score \diamond equal to the value of the loaded resource.

NAME

Rockets are named after famous futurists, but the names has no in-game significance.

RESOURCE SLOTS

When Loading resources onto rockets, robots are moved from Silos to these squares. Rockets have either 3, 4 or 5 slots, with highest values on top.

Players can load into any slot on any rocket first (they do not need to go top-to-bottom or bottom-to-top) but many rockets that take more than one copy of a resource may give different \diamond for each resource.

Some rockets have slots with different \diamond for the same resources.

RESOURCE POINTS

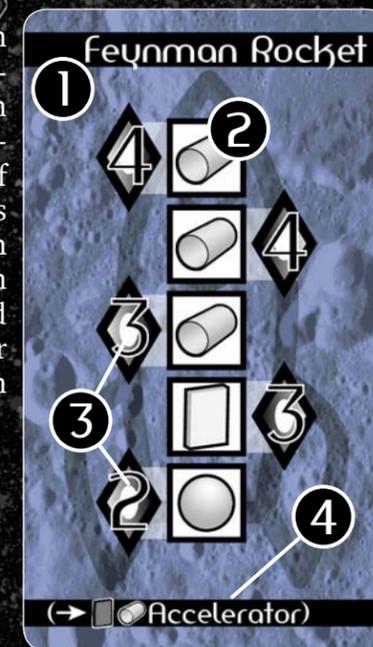
When a rocket launches, loaded resources each give a number of Dominance \diamond shown beside the slots. If a rocket launches and slots were empty, no players gain \diamond from those empty slots.

Rockets

The most direct way to gain \diamond is to export refined resources on rockets. This is done at the Loader, where the Working player can place up to three refined resources onto any open spots on any of the available rockets. The robots are placed directly onto the open boxes on the rockets, and remain there until the rocket is launched (either by filling completely or when the Crater spinner stops on

Individual resources have a range of values on rockets:

- : \diamond 1 - 2
- : \diamond 2 - 3
- : \diamond 3 - 4



REVEALED ADVANCED BUILDING

When a rocket launches, it will flip to become a particular Available Advanced Building, with the name shown at the bottom. Refer to Appendix 3 on p. 16 for details on each Advanced Building. Additionally, the cost to build the associated Advanced Building (on back) is shown to the left of the Advanced Building name. This is visible to aid in planning without needing to refer to Appendix 3.

Example First Turn

Blake, Greg and Rene have just completed the game's setup, playing with Outpost A-sides. After initial resource spins, their silos contain:



Task:

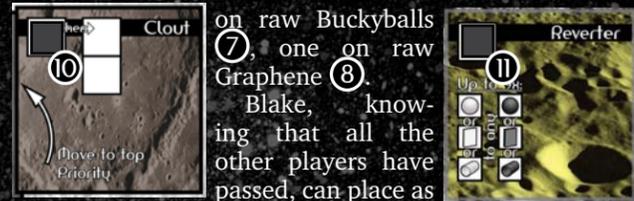
Working in Priority order, the players task robot teams to buildings to Work them later. Because Rene has top priority, she places the first robot team. With two high-valued refined Nanotubes, she wants to get some early points by loading them on a rocket, so she tasks a 2-robot team to the Loader (1). She could have tasked a 3-robot team to guarantee first loading, but she's confident that no one else will Load.

Next in priority, Greg plans on using his raw Buckyball along with another from the Crater to buy a Building (probably a Factory). He tasks a 2-robot team to the Uplink on the far left (to choose first) (2).

Finally Blake, who started with two refined resources, will have a lot of options for constructing after Reverting them. So he places a 2-robot team on the Uplink, to the right of Greg's (3).

Back to Rene, who will need some resources for next turn, who then passes. She signals that she's done by placing her remaining 4 robots on the Crater: two on raw Buckyballs (4) and two on raw Graphene (5).

Next again, Greg places a 2-robot team to the Shaker (with the 1) (6), to increase the odds that he'll get that extra Buckyball. Since he knows he's done, he puts his remaining two robots on the Crater: one



on raw Buckyballs (7), one on raw Graphene (8). Blake, knowing that all the other players have passed, can place as many teams as he wants now. He puts a 1-robot team on the Shaker (9), a 1-robot team on the Clout (10), and a 1-robot team on his Outpost's Reverter (11). He then puts his two remaining robots on the Crater: one on raw Graphene (12), one on raw Nanotubes (13).

Mine:

Rene is closest to the Crater, so she spins. They check to see how many times the Crater will spin (3 for their positions on the Dominance Track, +2 for the two robot teams on the Shaker), and Rene spins it five times. She spins the following:

1. refined Graphene (nothing happens)
2. raw Graphene (Rene/Greg/Blake move their robots to their Solos)
3. raw Graphene (nothing happens)
4. raw Buckyballs (Rene/Greg move their robots to their Silos)
5. All Rockets Launch (the two rockets are removed from Launchpads, flipped over to their Advanced Building sides and placed to the right of the board, and two new rockets are dealt from the bottom of the supply to the Launchpads)

Blake moves his robot that remains on the Crater (on raw Nanotubes) to his Robot Control.



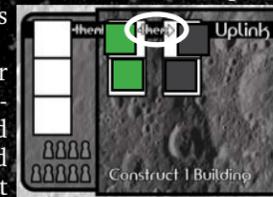
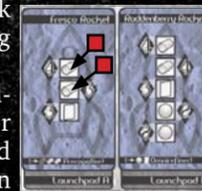
Work:

Working mostly simultaneously, the three players start moving their robot teams back to their Robot Control and performing the Building's actions.

Rene only has to work the Loader (and she doesn't have to wait for anyone), so she puts her two refined Nanotubes onto the Fresco Rocket, on the 4 and 3 slots. She moves her 2-robot team from the Loader back to her Robot Control. She could have placed her resources on the Roddenberry Rocket for 4 and 4, but that rocket will take longer to launch, and she wants her robots back. She is done.

Greg returns his two robots from the Shaker to his Robot Control and moves his Dominance track robot up 1 (the 1 for working the Shaker with a 2-robot team). Then works the Uplink, constructing a Factory: he takes the building tile, moves his two robots with Buckyballs from his Silo back to his Robot Control, and puts the tile onto his Outpost. He then moves his Dominance track robot up 1 (the 1 for working the Shaker with a 2-robot team). He is done.

Blake will have to wait for Greg to work the Uplink (buildings always being worked left-to-right), where he had originally planned to construct



either a Robot Control+ or a Factory. But one of the rockets that launched revealed an Omnirefiner, which he can afford, so makes a change of plans. First he returns the robot on the Reverter to his Robot Control (choosing not to revert anything). Then he works the Clout and moves his priority robot to top priority, moving the other players' down (returning his Tasked robot), and he returns the robot on the Shaker (doing nothing now). Finally after Greg finishes

working the Uplink, Blake works it himself and constructs the Omnirefiner (moving his Silo robots on a refined Buckyball and a refined Graphene to his Robot Control, moving his Dominance track robot up 1 from the Construction Bonus, and returning his 2-robot team from the Uplink), and places the Advanced Building card in one of the slots on his Outpost.

Launch:

As there are no full rockets, none will launch on their own. Rene is now the furthest back on the Dominance track, takes the Subsidized robot from the Lunar Surface box and places it in her Robot Control for use next turn.

Still have questions? Go to minethemoongame.com for further explanations and any errata.

Credits

The following people made this game possible:

- Game Concept, Graphic Design: Dan Cunningham
 Building Artwork: Daniel J. Lipscomb
 Playtesters: Madison Game Design Cabal
 Madison Company of Gamers
 Adam, Carson, Chad, Chadd, Dave, Doug, Greg, Holly, Jared, Phil, Sandee, and everyone else

Legal

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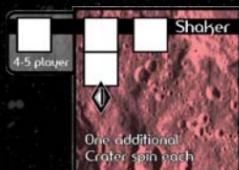
Appendix 1: Common & Available Buildings

Lunar Surface Buildings

These buildings begin the game on the Lunar Surface, can be Tasked by any player (or more than one), and cannot be upgraded.



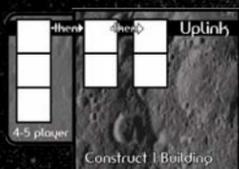
Refinery: When Worked, “refine” a particular raw resource to the corresponding refined resource (choose exactly which resource when the Work is performed). This can be done up to two times when Worked, but both exchanges must be done at the same time. In 4-5 player games, the player who Tasks with the two-robot team furthest left will choose which to refine first.



The one-robot team slots do nothing when Worked, but the player who Works with the two-robot team will receive \uparrow .

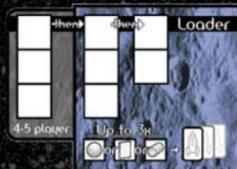
Shaker: If Tasked, during the Mining phase, spin the Crater either one, two or three additional times (depending on how many robot team slots are filled).

The \uparrow for Working the Shaker with a two-robot team is not given until Worked (not when Tasked).



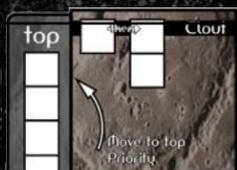
Uplink: When Worked, pay for and construct a SINGLE Building from the Available Buildings piles (including any Advanced Buildings revealed after rocket launches). The player who Tasks the left-hand two-robot team will have the option of which Building to construct before the other two-robot team. In 4-5 player games, the player who Tasks the three-robot slot (furthest left) will have the option of which Building to construct before the others.

You only construct ONE Building when you Work the Uplink.



Loader: When Worked, move up to three refined resources from Silos to ANY open slots on any number of rockets. The player who Tasks with a three-robot team will load their three resources before the two-robot team. In 4-5 player games, the player who Tasks with a three-robot team furthest left will load before others.

It is fine for more than one player to have resources loaded onto the same rocket.



Clout: When Worked, move your robot on the Priority track to the top (first). The player who Tasks to the one-robot slot (further left) will move to top first (but if there are robots Tasked to the two-robot slot, the first player will be moved down when the second player Works).

It is fine for one player to task a second team to the same Building as long as all others have had an opportunity first.

Moonbase Starting Buildings

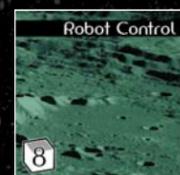
These Buildings begin the game on player Moonbases, can only be Tasked by that player. Of the starting Buildings, only the Robot Control can be upgraded.



Silos: The three types of resources are stored in separate Silos: Buckyballs on the left, Graphene in the middle, and Nanotubes on the right. Each Silo can hold three robots, whether they hold raw or refined versions of their resources. What they hold is indicated by which symbol the robot is covering: top (darker) is raw, bottom (lighter) is refined. Robots in Silos (holding resources) can “drop” those resources at any time, and be moved out (but that resource is lost).

Robots in Silos can “drop” the resources they hold at any time.

Silos can only hold THREE of each resource type (either raw or refined)



Robot Control: This holds robots when not Tasked or on the Crater. It initially allows control of eight robots (upgrades give control of one more robot per level).



Reverter: When Worked, exchange any number of refined resources for that number of raw resource (for example, revert two refined Buckyballs to a raw Graphene and raw Nanotube). All exchanges must be done at the same time.

Available Moonbase Buildings (and Upgrades)

These Buildings start in the Available Buildings section of the Lunar Surface, can be constructed on Moonbases using only raw resources, and once constructed can only be Tasked by that player. Upgrades are stacked directly on top of pre-constructed Buildings.



Factory and Upgrades: When Worked, move one of your robots to your Silo holding either a raw Buckyball or a raw Graphene. Factory upgrades (+ and ++) can only be constructed AFTER Factory has been constructed (and are placed on top of Factory), and can be worked with a smaller team and then gives the ability to produce two raw resources. Give \uparrow , \uparrow , and \uparrow when constructed.

Upgrades can only be constructed on top of all lower levels of that type.



Exchanger: When Worked, exchange either one raw Buckyball or one raw Graphene for either one raw Graphene or raw Nanotube. This can be done up to two times when Worked (exchange does not have to be the same). Gives \uparrow when constructed.



Refiner: When Worked, “refine” a particular raw resource to the corresponding refined resource (choose exactly which resource when the Work is performed). This can be done up to three times when Worked, but all exchanges must be done at the same time. Refiner+ can only be constructed AFTER Refiner has been constructed, and can be Worked with a smaller team. Give \uparrow and \uparrow when constructed.



Robot Control Upgrades: These upgrades (+ and ++) are constructed on top of the pre-constructed Robot Control. They each provide an additional robot (retrieved from the game box) for use from then on. Robot Control++ gives \uparrow when constructed.

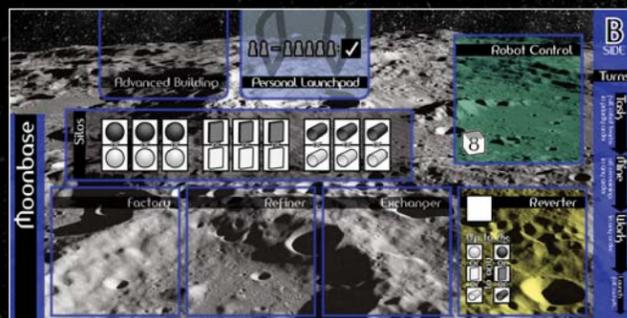
Appendix 2: Moonbase B-side Variations

Each Moonbase's A-side is identical, and is the recommended side to start with on players' first games. Once players have more experience, they can choose to play B-sides, each with slight variations on the A-side configuration (one advantage and one disadvantage). When players are choosing which side of their Moonbase to play, refer to this page for quick reference.



Black B-side

- ⊕: starts with an Exchanger+ (the only one in the game).
- ⊖: starts with only 7 robots.



Blue B-side

- ⊕: a personal Launchpad that only you can Load (using the Loader; launching and replacing the same as other Launchpads).
- ⊖: only one Advanced Building site.



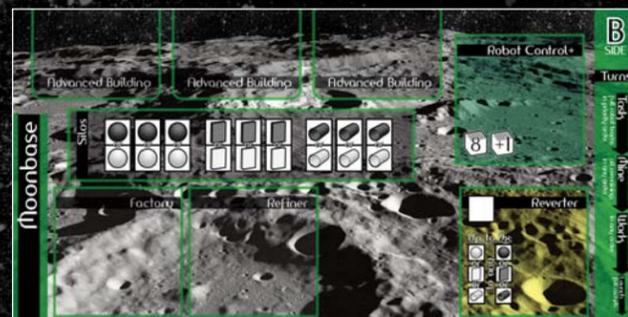
Purple B-side

- ⊕: starts with a Shaker on the Moonbase, gives additional control over spins.
- ⊖: no Reverter, so once refined, resources must be Loaded or "dropped".



Red B-side

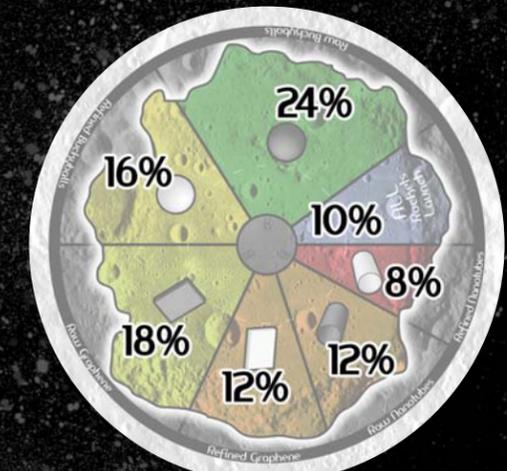
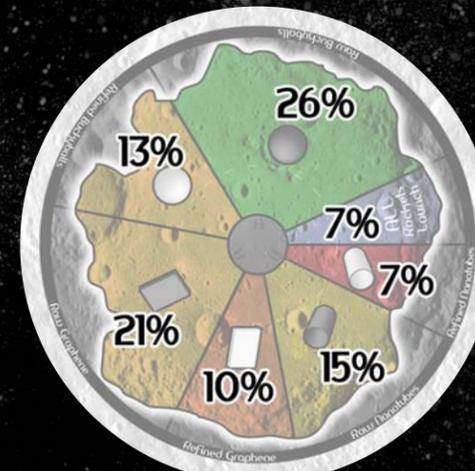
- ⊕: starts with Factory (which can be upgraded to Factory+ then Factory++ as normal).
- ⊖: Silos can only hold two of each type of resource (instead of the normal three).



Green B-side

- ⊕: starts with Robot Control+ (9 robots).
- ⊖: No site for (and so cannot build) Exchanger

Appendix 2: Crater A/B-side Variations



Crater A-side ←

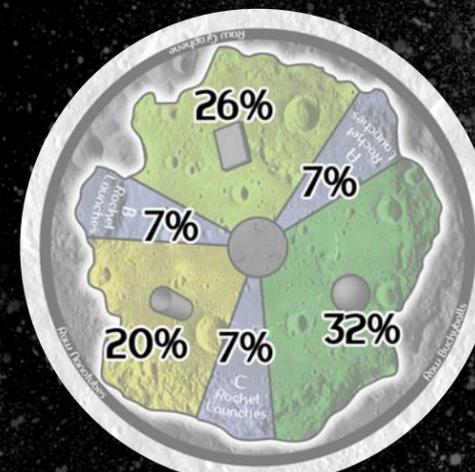
→ Crater B-side

With each refined resource having half the odds of raw, the A-side makes deciding between raw/refined slightly easier.

7% "All Rockets Launch" produces about one set of launches every 14 spins, or within the first five turns (fewer with use of the Shaker).

When refined and raw resources have odds close together, choosing which to Mine when needing a particular resource is more difficult.

10% "All Rockets Launch" produces about one set of launches every 10 spins, or within the first four turns (fewer with use of the Shaker).



Crater C-side ←

→ Crater D-side

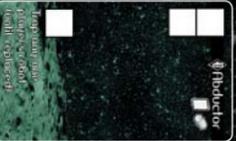
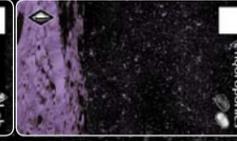
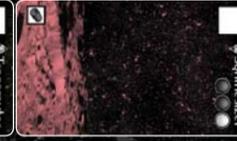
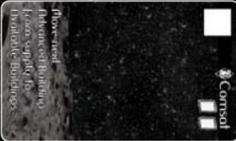
No refined resources on the Crater means that Refiners / Refinery are more important, but that the odds of hitting raws are increased.

Unlike other Craters, this one launches individual rockets instead of all (in 2-player games there is one slot that does nothing when spun).

Only a slight variation on the B-side Crater (raw resources are at similar ratios), the D-side has no refined Nanotubes, a worse odds on refined Graphene, but plenty of refined Buckyballs.

Appendix 3: Advanced Buildings (on rocket backs)

Advanced buildings begin the game on the backs of rockets, and are not available for construction until they have been revealed through rockets launches.

 <p>#Abductor When Worked, steal another player's robot from their Silo and keep on the Abductor until a different is stolen.</p>	 <p>#Generator When Worked, move two of your robots to your Silo holding either a raw Buckyball or a raw Graphene each.</p>	 <p>#Mass Driver When Worked, exchange either a refined Buckyball or Graphene for .</p>	 <p>#Solar Array When Worked, choose a visible Building on any player's Moonbase and Work that Building.</p>
 <p>#Accelerator When Worked, choose a rocket on a Launchpad. At the end of the turn, launch that rocket.</p>	 <p>#Grant When constructed, gain permanent control of the Subsidized robot at end of turn.</p>	 <p>#Omnirefiner When Worked, "refine" up to nine raw resources to their corresponding refined versions, all at the same time.</p>	 <p>#Statue , , , , . When Worked, move one of your robots to your Silo holding a raw Nanotube.</p>
 <p>#Agri-Dome When Worked, gives .</p>	 <p>#Hydroponics When Worked, gives .</p>	 <p>#Prerogative When Worked, move your priority robot to the top Priority AFTER moves provided by the Clout.</p>	 <p>#Synthesizer When Worked, exchange up to nine raw resources for the same number of any raw resources, all at the same time.</p>
 <p>#Comsat When Worked, add an Advanced Building to Available Buildings (dealt from the bottom of the deck).</p>	 <p>#Lab When Worked, construct a Building BEFORE those provided by Working the Uplink.</p>	 <p>#Quaker Once constructed, spin the Crater two additional times every turn.</p>	 <p>#Transmitter When Worked, exchange up to nine raw resources for any raw resources, all at the same time.</p>
 <p>#Leecher When Worked, choose a player. That player loses .</p>	 <p>#Repressor When Worked, exchange up to two raw Nanotubes for a refined Buckyball or Graphene each.</p>	 <p>#Trembler If Tasked, during the Mining phase spin the Crater one additional time.</p>	