



LUNARIS 45

RULEBOOK

GAME DESIGN BY RÔLA & COSTA



2-4



10+



45'

1. INTRODUCTION

The year is 2023 and the world is buzzing with excitement as a groundbreaking new project is announced. A leading corporation in space exploration has unveiled its plans to build a lunar complex unlike any other. The name of this project is LUNARIS 45, and its goal is to create a fully operational lunar colony that will be run entirely by artificial intelligence.

As news of this project spreads, it captures the imagination of people all over the world. The idea of a self-sufficient lunar complex, with its own power sources, food production, and communication systems, is both ambitious and awe-inspiring. And with the use of advanced AI technology, the possibilities seem endless.

But as with any groundbreaking project, there are also concerns. Some wonder if the reliance on AI will make the colony vulnerable to malfunctions or even takeover by rogue AI. Others worry about the impact that such a project might have on the future of humanity.

To address the concerns of vulnerability surrounding the LUNARIS 45 project, the corporation has assembled a team of the world's top experts in disaster response, AI safety, and cybersecurity. These scientists are tasked with identifying and anticipating any catastrophic scenarios that might arise from running a lunar colony entirely by AI.

But these experts are not paid in the usual way. Instead, they are offered a unique incentive: for every problem they solve, they will receive a generous amount of credits.



This payment system ensures that the team is motivated to work tirelessly, leaving no stone unturned in their quest to make the LUNARIS 45 project as safe and secure as possible. From the possibility of a solar flare disrupting the colony's power supply to the risk of rogue AI causing a catastrophic malfunction, the team of experts works to identify every conceivable problem and develop plans to mitigate them.

Players will take on the role of one of these experts. Players will use their knowledge and powerful computers to predict and solve any problem that may arise. Players will be upgrading these computers to achieve better results and solve even more complicated problems. Players will also be working in a vast network where they can share knowledge and achieve the optimal solution to the most varied problems.

2.COMPONENTS



4 Player Boards
(3 regular boards and
1 special last-player board)



24 Cheques of 10k



5 Cheques of 50k



36 Cubes
(9 each in blue,
green, red, and yellow)



4 Markers
(1 each in blue,
green, red, and yellow)



20 Dice
(5 each in blue,
green, red, and yellow)



50 Problem Cards
(10 each in 5 difficulty levels)



**3 Double-sided
Upgrade Tokens**



1 Rulebook

3.SET-UP

PLAYER SET-UP

Randomly select a start player, turns will follow clockwise from this start player. Each player takes a player board with the last player in turn order taking the special 'last-player' board, see the icon to the right. This will be player 2 in a 2-player game, player 3 in a 3-player game, player 4 in a 4-player game.

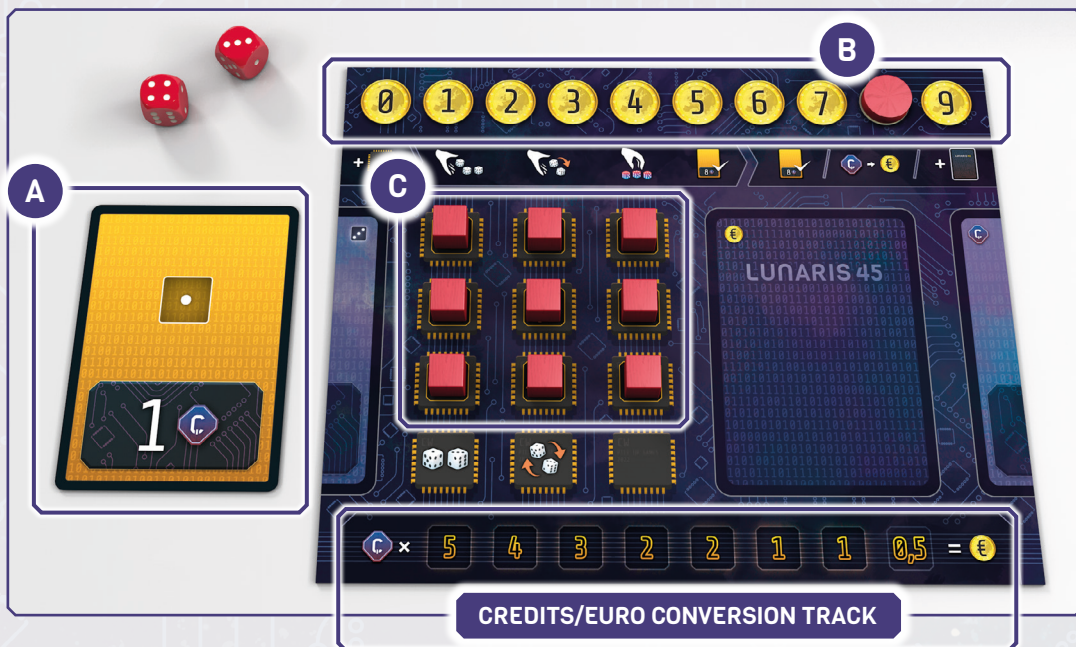


Randomly deal each player a level 1 problem card which they place face-up to the left of their player boards. This area will be referred to as UNIQUE PROBLEMS. **A**

Each player chooses a colour to play with and takes the 9 cubes, 5 dice and 1 marker of that colour.

Place the marker on space 8 of the MONEY TRACK at the top of each player board. **B**
Place 3 of the dice aside in a reserve pool, and the remaining 2 dice beside the player board for immediate use.

Finally, players place their 9 cubes onto the top 9 spaces of the central area of their player boards **C**. This central grid, made up of 4 rows by 3 columns, is referred to as THE ASSETS. As the game progresses players will be removing cubes from THE ASSETS to uncover abilities available to them at any given time. As the game starts with the bottom row of THE ASSETS revealed, players have 2 computers (2 dice) and 1 basic processing power (1 re-roll), available to them.



SET-UP

Separate all the problem cards by difficulty level, I - V, and shuffle each level forming a face-down deck. Place, in reach of all players, all 5 decks. These decks will be referred to as THE OFFER. **D**

For a **4-player game** prepare the problem cards display as follows:

- Shuffle together 4 level I and 4 level II cards and place them face-up just below THE OFFER;
- Shuffle together 4 level III and 4 level IV cards and place them face-up beside the previous deck;
- Deal 4 level 5 cards face-up next to the other decks. These 3 decks will be referred to as the COMMON PROBLEMS. **E**

For **3-player and 2-player games** set-up the COMMON PROBLEMS as above but with only 3 cards of each level.

Sort the 3 upgrade tiles next to each other, with the cheapest value face-up. **F**

Place the top of the game box in the centre of the table, face up, this will be the NETWORK COMMUNICATIONS SYSTEM. **G**

Finally, sort the Cheques by value **H** and you are ready to start solving problems.



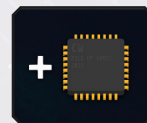
4.FLOW OF PLAY

A player's turn is composed of 3 phases, all of these phases are performed in sequence before the next player's turn. These phases are:

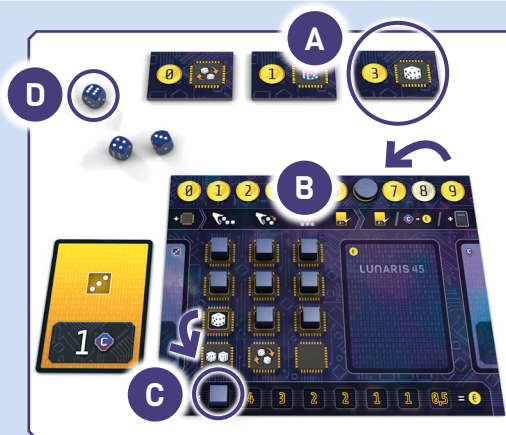
- **BUY UPGRADE (optional);**
- **RESOLVING A PROBLEM (main action phase);**
- **BONUS ACTION PHASE (choose ONE of three possible bonus actions):**
 - » Resolve a 2nd problem;
 - » Validation;
 - » Add to unique problems.

4.1.BUY UPGRADE

There are 3 upgrade tiles available to purchase at any time. Every upgrade tile reflects the purchase of a unique ability. Each upgrade tile has two different costs depicted on either side of the tile, one cheaper (which starts the game face-up) and the other one more expensive.



Every time a player decides to buy an upgrade tile, he must pay to the bank the cost depicted on that tile and then flips it over, either decreasing or increasing its cost for the next player. Buying an upgrade is always optional and only one can be bought per round, per player.



Alice starts her turn by buying an upgrade, one more computer (die). So she flips the corresponding upgrade tile **A**, pays 2k Euros from her money track **B**, moves the lowest cube on the corresponding column of the ASSETS grid to the leftmost space of the credits/euro conversion track **C** and finally takes one more die to add to her playing area. **D**

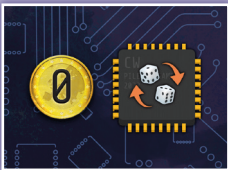
Every time a player buys an upgrade they must take the lowest cube from the corresponding column and place it on the leftmost available space on the Credits/Euro conversion track, more often than not reducing the conversion ratio.

To buy an upgrade, players must have the required funds available on their money track. Players may never use cheques to pay for upgrades.



BUY ONE COMPUTER, FOR 2K OR 3K.

Each row allows the player to buy another computer; another die from their reserve pool, paying the cost shown on the upgrade tile.

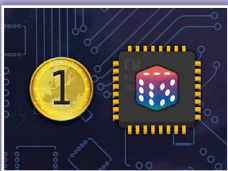


UPGRADE PROCESSING POWER BY ONE LEVEL, FOR FREE OR 1K.

Each row allows the player more options to change their dice rolls. The bottom two rows allow the player to re-roll, one time, any or all of their dice. The top two rows allow either another re-roll option OR the chance to **add or subtract 1** to or from one die value. If both rows are available then the effects can be combined to add or subtract 2 from one die value.

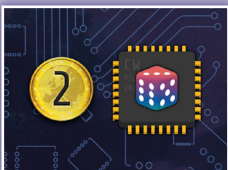


When adding or subtracting values to a die, you **cannot** change a 1 into a 6 or vice-versa.



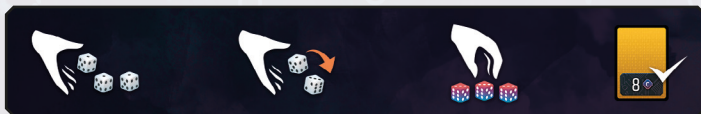
UPGRADE ACCESS TO THE NETWORK COMMUNICATIONS SYSTEM BY ONE LEVEL, FOR 1K OR 2K.

Each row allows the player to use one die that has been placed on the Network Communications System. So, if the whole column has been cleared of cubes the player may use 3 dice from the Network Communications System. These dice still belong to the player of their colour but are available to all.



4.2. RESOLVING A PROBLEM

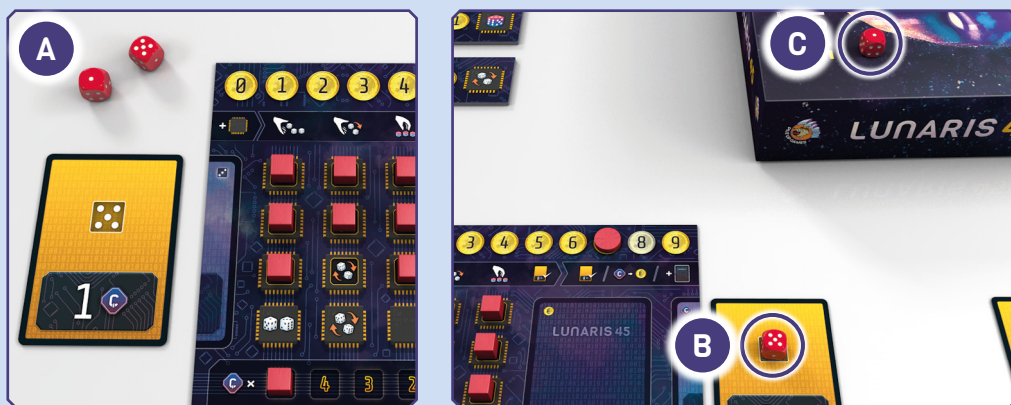
After buying (or not) an upgrade, players enter the main phase where they attempt to resolve problems.



First of all, players collect any of their own coloured dice from completed problem cards to the right of their board, or from the Network Communications System (there will be none of these for their 1st turn), and then roll all the dice they have available referring to THE ASSETS. With the dice rolled players will attempt to resolve one problem either from the UNIQUE PROBLEMS section of their individual board or from the COMMON PROBLEMS. Players may now use any re-rolls available as well as any available dice in the Network Communications System (if the corresponding upgrade has been bought).

Consider a re-roll to cover any quantity of dice the player chooses.

After the initial roll, any re-rolls, and possible use of network communications system dice, players will attempt to solve one, and only one, problem either unique or common. If players are able to solve a problem by matching the required dice results with those depicted on the card, they take that card and place it to the right side of their individual board. Any dice used remain on the card. They are considered exhausted until they are needed again. Any unused dice are placed in the network communications system area.



After rolling both dice, Rodrigo rolls a 1 and a 5 **A**. He decides to solve his unique problem and uses the 5 **B**. Unless he intends to take the bonus action 'Resolve a 2nd Problem' (see next page), he places the 1 die onto the Network Communications System **C**, making it available to all players.



Juliana has 3 dice available and rolls 2 - 2 - 3 (A). She would like to complete her unique problem but that requires two odd die results, she only has one, the '3'. However, having upgraded her third column of THE ASSETS (B), she is able to use the 1 die Rodrigo placed in the Network Communications System (C), giving her a second odd die to complete the problem. Unless she intends to take the bonus action 'Resolve a 2nd Problem' (see below), she places the two 2 value dice onto the Network Communications System (C), making them available to all players.

4.3. BONUS ACTION PHASE

In this phase, players will choose one extra action from 3 available:

4.3.1. RESOLVE A 2ND PROBLEM

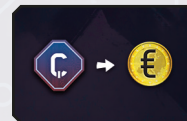
Resolve ONE more problem with any remaining dice. If there are still unspent re-rolls or unused network communication system dice, players may use them. After resolving a 2nd problem, either unique or common, they move the corresponding card and dice to the right of their board as previously.



At this point, all unused own dice (if any) **must** be placed in the Network Communication System and become available for the other players.

4.3.2. VALIDATION

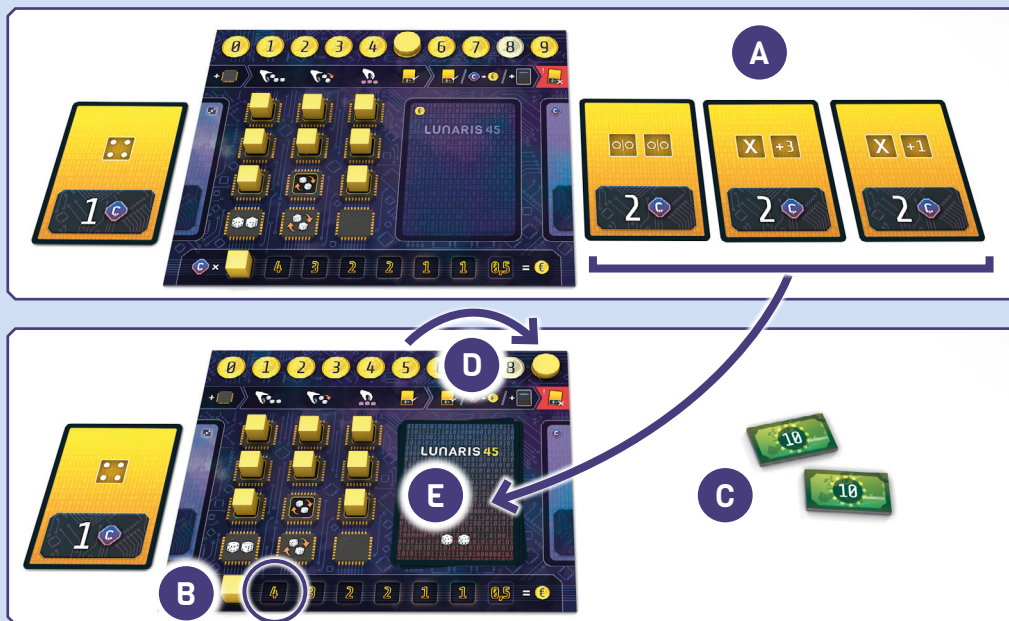
With this action, players may validate all resolved problem cards they have placed to right of their player board. These cards represent earned credits, and players must transfer these credits to Euros to win the game.



To make this transfer, players add together the value of the credits on each problem card and multiply this by the leftmost visible number of the Credits/Euro Conversion track. The result is the amount in Euros they now receive.

For every 10k Euros, players receive a Euro cheque of the corresponding value. Remaining Euros, below 10k, are registered on the money track at the top of the player board. Whenever a player reaches 9k Euros and needs to add more euros, trade 10k Euros for a Euro cheque of 10k and continue registering the Euros from the beginning of the money track.

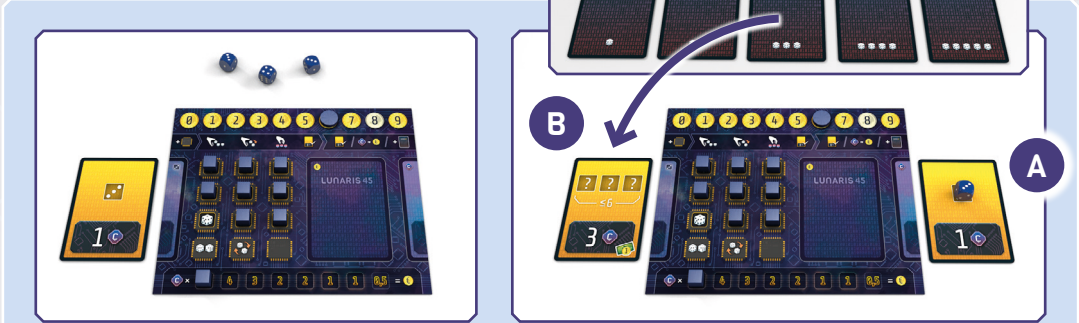
The validated cards are then collected together and placed face down on the player board, they may be used to break ties at the end of the game.



Laura has 3 problem cards already resolved to the right side of her player board **A**. She decides to validate them and adds together the credits: $2 + 2 + 2 = 6$. Because she has only made one upgrade, the leftmost visible number of her Credits/Euro Conversion track is 4 **B**. As $6 \times 4 = 24$, she earns 2 10k cheques **C** and adds the remaining 4k to her money track. As she already has 5k she moves her marker to the 9k space **D**. Finally, she places the validated cards face-down onto her player board. **E**

4.3.3.ADD TO UNIQUE PROBLEMS

Instead of resolving a second problem or validating those credits, players may pick up any face-down card from the top of the decks available in the OFFER and add it face-up to the left side of the individual board, for possible future resolution. It is possible for players to have more than one unique problem card to the left of their player board.



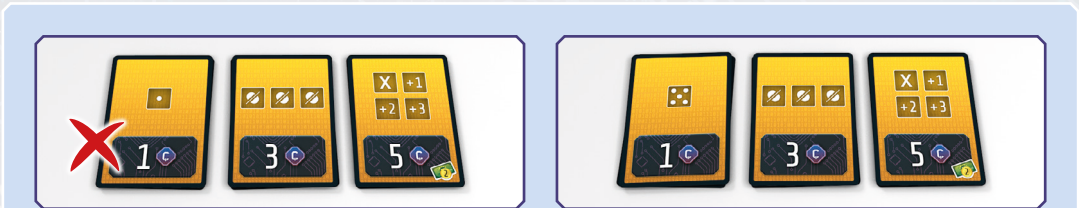
During her first turn, Alice was able to solve her unique problem with a die of value 3. She moves her solved problem card to the right side of her player board **A** and as a bonus action she decides to add one problem card from the OFFER to her UNIQUE problems. **B**

5.LAST PLAYER SPECIAL ACTION

After the last player has completed their Bonus Action Phase they have one final duty. From the COMMON PROBLEMS they remove the top card of the lowest level deck from the game. The Common Problems decks are never refilled during the game.



If the card removed has an interest payment icon, all players have to pay to the bank 1k, 2k, or 3k Euros (as depicted on the icon) for each cheque of 10k they have. 50k Euro cheques, obviously count as being 5 cheques of 10k.



As Laura is the last player, at the end of her turn she **must** remove from the game the top card of the lowest level deck still visible (the leftmost deck).

6. END OF THE GAME

If the last player special action removes the last card from the COMMON PROBLEMS, or there is no cards there as they have been resolved during the round, the end of the game is triggered. All players may now take the Validation action once last time at a fixed rate of 0.5k rounded down.

Players then add together their cheques and Euros on their money tracks with the player with the most Euros being the winner of the game. Any ties are won by the player who has resolved the most problems, those face-down on their player board. If still tied the players share the victory.

2-PLAYER ADDITIONAL RULE: At the start of each round the first player rolls 1 die of an unused colour and places it on the Network Communications System. The die is available to both players and once used is not replaced until the start of the next round.

SPECIAL CASE: In rare cases, the COMMON PROBLEMS may become depleted during the last round, giving some players no opportunity to resolve further COMMON PROBLEMS. When taking the Resolving a Problem action, they may still resolve a UNIQUE PROBLEM, but, if they do not have any, they must instead roll all available dice and place them directly onto the Network Communications System. Players then continue their turn as usual.

7. PROBLEM CARD REFERENCE



Corresponding dice value



Even valued dice, 2, 4 or 6



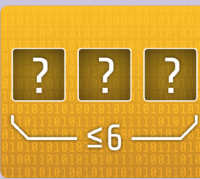
Odd valued dice, 1, 3 or 5



Any dice value plus one such as 1+2 or 3+4



Dice of the same value such as 1+1 or 5+5



Any 3 dice with a sum equal to, or lower than, 6

8. CREDITS

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