

Cosmic Scavengers

In the wake of an intergalactic war that ravaged the galaxy, frontier settlements became the dumping sites for damaged space warships as the retreating imperial forces cut their losses, turning the former battlegrounds into ship graveyards on an unprecedented scale. Preserved in the vacuum of space, these vessels are still dangerous enough due to debris and residual radiation from nuclear weaponry that artificial satellites track their movements. However, sufficiently strong imaging technology discovered abandoned shipments intended for terraforming projects. As these ships inevitably succumb to the gravity of local planets and crash down, native peoples soon formulated methods to predict each trajectory, redirecting the impact sites with surface-based artillery and canvassing them with scavenging robots to retrieve the supplies. With an upcoming planetary alignment amplifying gravity and attracting many ships in succession, your community organized a competition to celebrate the good fortune. You must outmaneuver your contemporaries as a robot handler to reclaim the most you can and prove your skill to lead future scavenging efforts!

Cosmic Scavengers is a board game built around hand-management, variable-market drafting, and programming with an equal-opportunity principle at its core. Every possible path through the game is equally available to all players from the start, but planning and managing your branching options to account for future turns is critical. On each of a variable number of rounds, players simultaneously program multipurpose robots on a set course and then determine turn order dynamically by comparing speeds of the programmed robots. Those robots then collect resources which can be spent to fulfill contracts, possibly gaining new robots and functions. The game ends at the end of a round when any player has fulfilled 8 or more contracts, and the total points awarded by those contracts determine final score.

Components

1. 1 hex direction board, 1 hex ship board, and 1 hex board fill guide
2. 1 square direction board, 1 square ship board, and 1 square board fill guide
3. 4 player decks, each of which have the following:
 - a. 8 starting robots
 - b. 1 square direction designation card
 - c. 3 hex direction designation cards
 - d. 1 cover card
 - e. 1 reference card
4. 4 player resource stores
5. 24 contract robots, 2 in each of 12 types
6. 72 contracts
 - a. 24 prize contracts
 - b. 24 robot contracts
 - c. 24 PROGRAMMABLE contracts
7. 90 marbles
 - a. 15 black "void" marbles
 - b. 15 red "organic" marbles

8. 1 resource pool container
9. 1 resource supply container



Setup

Prepare the resource pool with the indicated numbers of marbles and the ship board, direction board, and board fill guide for the appropriate number of players, returning to the box any direction designation cards and boards that do not apply for the indicated shape. The other marbles remain in the resource supply.

Players	Boards	Void (Black)	Organic (Red)	Chemical (Green)	Mechanical (Blue)	Electrical (Yellow)	Precious (White)	Contracts
2	Square	6	8	7	6	5	4	8
3	Hex	12	15	12	10	7	5	10
4	Hex	10	15	12	10	8	6	12

Assign each player a starting deck with a cover card, reference card, direction designation cards, and 8 robots. Set out all the contract robots in identical stacks of 2 and shuffle the contract deck. Reveal contracts from the top of the deck until there are enough contracts for the player count and at least half that number are robot contracts (e.g. 6 robot contracts minimum for 4 players). Add those robot contracts and the first other contracts revealed to bring the total up to the necessary amount, shuffling the rest, if any, back into the deck.



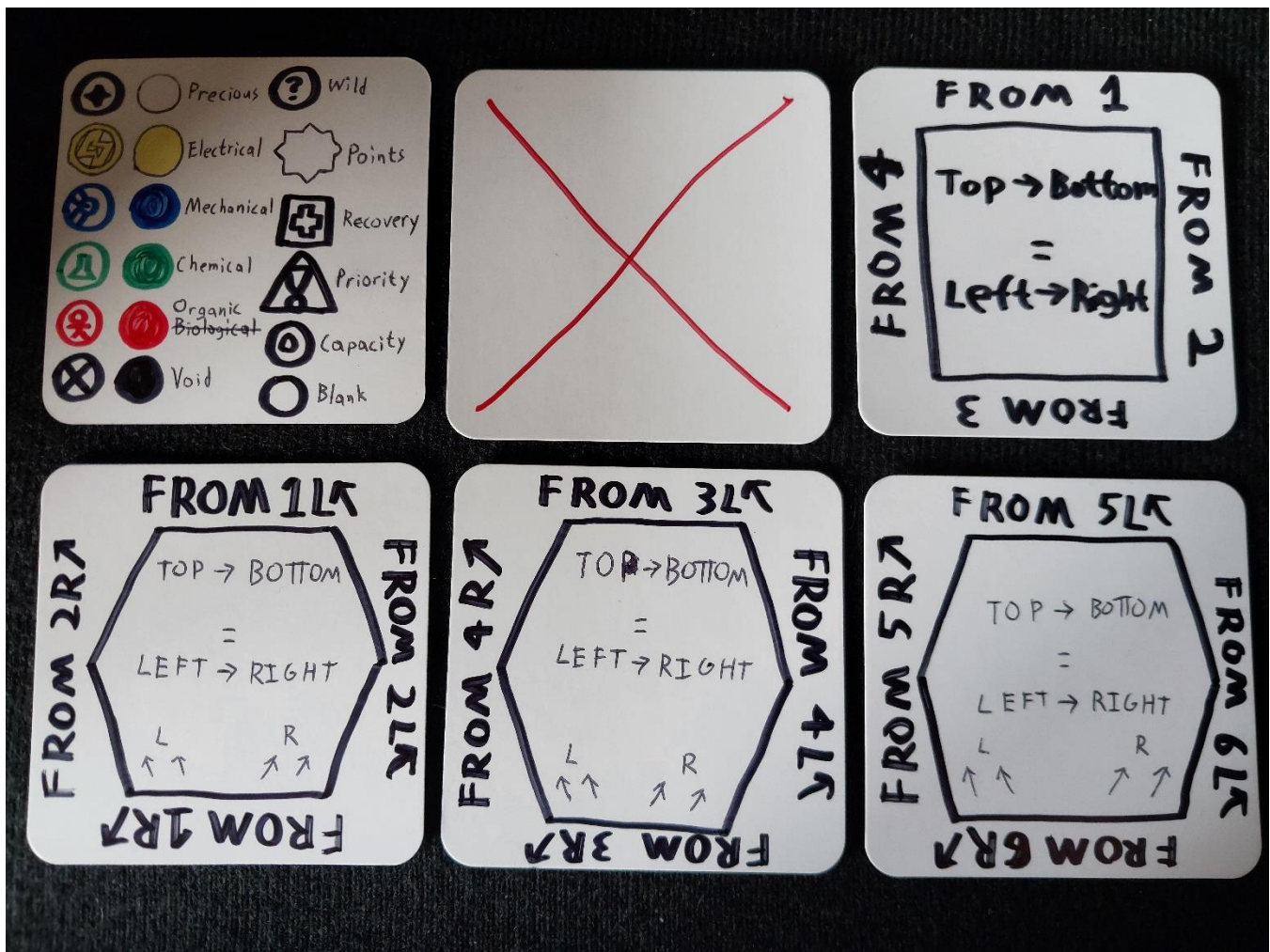
Setup showing one player's cards and some of the contract robots.

Card Structure

There are 5 types of cards in Cosmic Scavengers.

Reference cards are purely informational and serve no mechanical purpose.

Cover cards and direction designation cards are placed at the top and second-from-top positions of each program stack, respectively. The former exists solely to hide all programmed cards, and the latter indicates the paths the programmed robots will take when traveling the ship to scavenge corresponding to the selected board. The direction designation card's active direction is the one printed on the opposite edge from the player when revealed (i.e. the one with text right-side up for them).



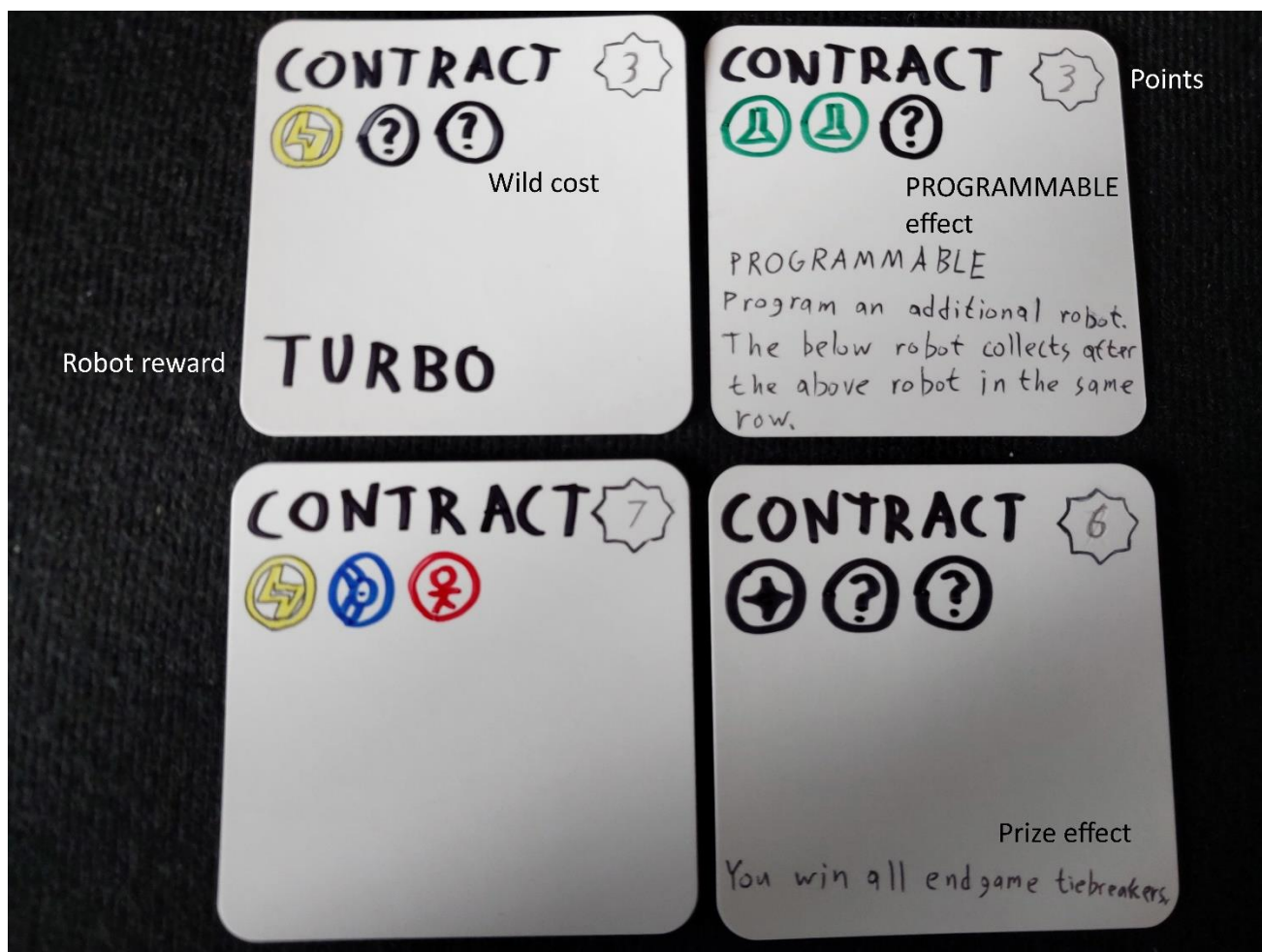
Clockwise from top left: reference card, cover card, square direction designation card, all three hex direction designation cards.

Robots are cards with various icons. Each robot has 4 edges, called modes, usually with different functions. Only the forward-facing mode, the one opposite the player when revealed, is active at a time. Each mode has one or more icons, and any icons on a corner space (turned

45°) apply to both adjacent modes. Icons come in two varieties: collection icons indicate which resources a robot will seek to collect, and control icons modify the way a robot works. In order of decreasing value and rarity, precious, electrical, mechanical, chemical, and organic icons are all common types of resources and collection icons. Void marbles represent empty space with traces of value, and though they have moderate frequency, they have the lowest value. In those rare cases they can be collected, they can only be spent on wild costs. Conversely, control icons are all different. Priority has the effect of counting as -1 icon for computing diligence. Blanks have no effect but still count as an icon for diligence. Recovery allows the user to recover from their discard one robot and/or one PROGRAMMABLE contract per icon. Capacity increases the number of resources a robot pulls back: every robot has a default 1 plus 1 per capacity icon.



Contracts have three types: PROGRAMMABLE contracts say PROGRAMMABLE and can be put into the program stack with robots for various effects; robot contracts sit out permanently and grant special robots called contract robots when fulfilled; and prize contracts include all other contracts which likewise sit out permanently, sometimes with effects. Every contract has a point value and a cost to be paid in resources. Wild costs can be paid using any type of resource, but every other resource requires spending the exact type listed to be fulfilled.



Clockwise from top left: robot contract for TURBO, PROGRAMMABLE contract, and two prize contracts.

Round Structure

Preparation Phase

Mix the resource pool and fill the ship board randomly. Place the ship board onto the direction board in any orientation. If the contract market has fewer than the required number of contracts based on the player count, refill it from the contract deck.



Programming Phase

Players program four robots from their hands and any number of PROGRAMMABLE contracts topped their direction designation card into a single stack of cards face-up with the cover card on the very top to hide the direction designation card. Once all players are ready, they reveal their program stack by laying cards one-at-a-time from the top of the stack down going left-to-right (e.g. the bottommost card would be on the far right). Alternatively, if space and cover allows, players may lay out cards already in the right order and simply reveal.



After programming, each player must determine turn order by calculating their diligence, the number of icons across the four active modes of their programmed robots (including the effects of those PROGRAMMABLE contracts which add, remove, or modify from those printed icons). Priority icons count as -1 icon for this purpose, but all other icons add +1 to diligence. The lowest diligence goes first with other successive tiebreakers shown below. See FAQ for what to do if players are still equal after all comparisons below.

1. Lowest total diligence
2. Greatest total priority (number of priority icons)

3. Sort all robots by each of the following categories separately and compare each rank across players first to first, second to second, etc.
 - a. Sorted high to low: lowest individual diligence
 - b. Sorted low to high: greatest individual priority



In this case (counting the modes on top as the active modes for both players), the player with the top hand would go first. Both have 4 diligence, but the top has 3 priority compared to the bottom hand's 2 priority.



In this case (considered as above), the player with the bottom hand would play first. Both hands have 5 diligence and 2 priority, so the next tiebreaker is to consider robots individually. The most diligent robot of the top hand is Digger with 3 diligence, but the bottom hand has three robots tied for 2 diligence, meaning it has the first robot with less diligence when all are considered from greatest to least diligence.

Recovery Phase

Once turn order is determined, players resolve recovery icons. For each active recovery icon, a player may return to their hand from their discard one robot and/or one PROGRAMMABLE contract. This can be done simultaneously or, if any player desires it, in turn order.

Collection Phase

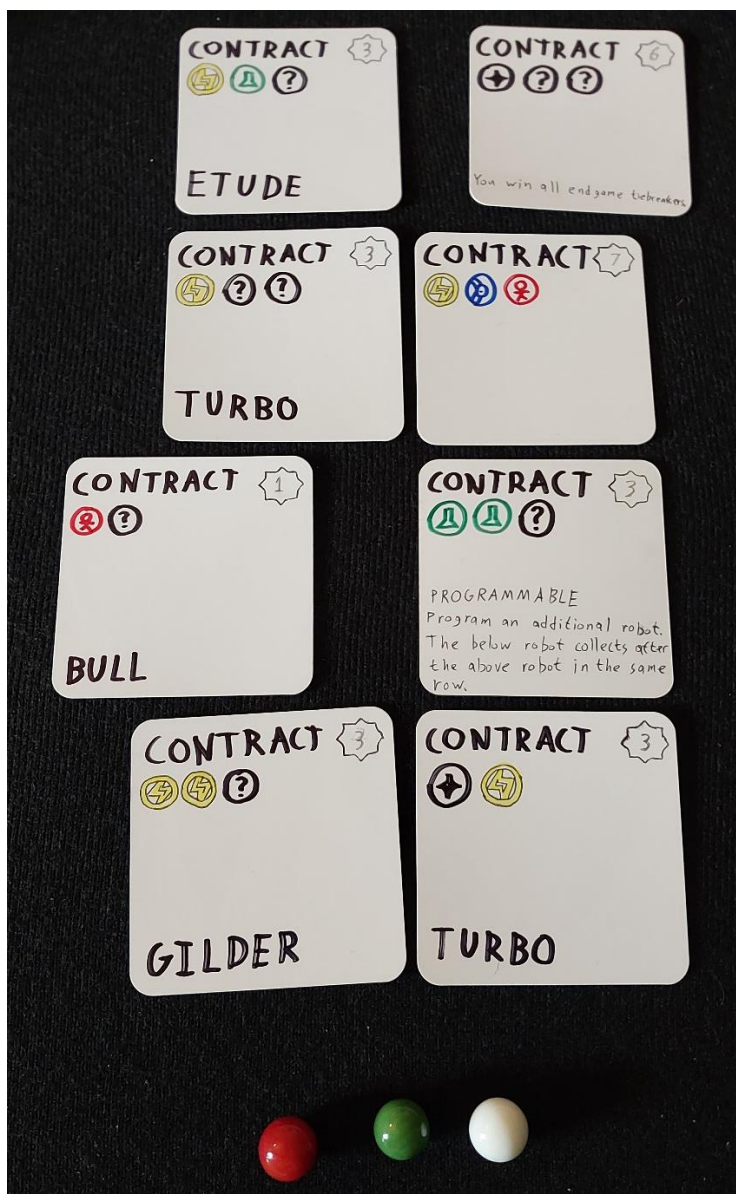
Then, in turn order, each player resolves collection. The player considers each line of resources from the starting position and direction they designated and, for each robot with at least one collection icon, collects the first resource(s) of any types matching any collection icons it has up to its capacity. For example, the leftmost robot travels in the line extending from the leftmost designated space in the direction indicated. Robots have a default capacity of 1 plus 1 more per capacity icon, and once they have collected resources equal to their capacity, they are discarded. Any robots that do not collect up to their capacity (including robots with no active collection icons) return to the player's hand. Any programmed PROGRAMMABLE contracts are discarded, and direction designation cards and cover cards always return to the hand. All newly collected resources sit in front of a player for now.



RECOVERY DRONE returns to hand. All others collected to capacity and are discarded.

Fulfillment Phase

Right after an individual player completes their collection phase, that player goes on to fulfill contracts. The next player to collect may enter their collection phase simultaneously. During fulfillment, a player may fulfill any number of contracts pulling from resources they have collected in the current round and, if necessary, from previous rounds as well. When spending, the former return to the resource pool and the latter return to the supply. Contracts have three types: PROGRAMMABLE contracts go immediately into the hand; robot contracts sit out permanently and indicate the name of the contract robot that will be placed into the hand as a fulfillment reward; prize contracts likewise sit out permanently, though some have immediate, endgame, or ongoing effects. After fulfillment, any unspent newly collected resources are added to a player's pool of previously collected resources, and an equal number of resources are pulled from the supply into the resource pool.



Either of the two indicated contracts may be fulfilled with these collected resources.

Cleanup Phase

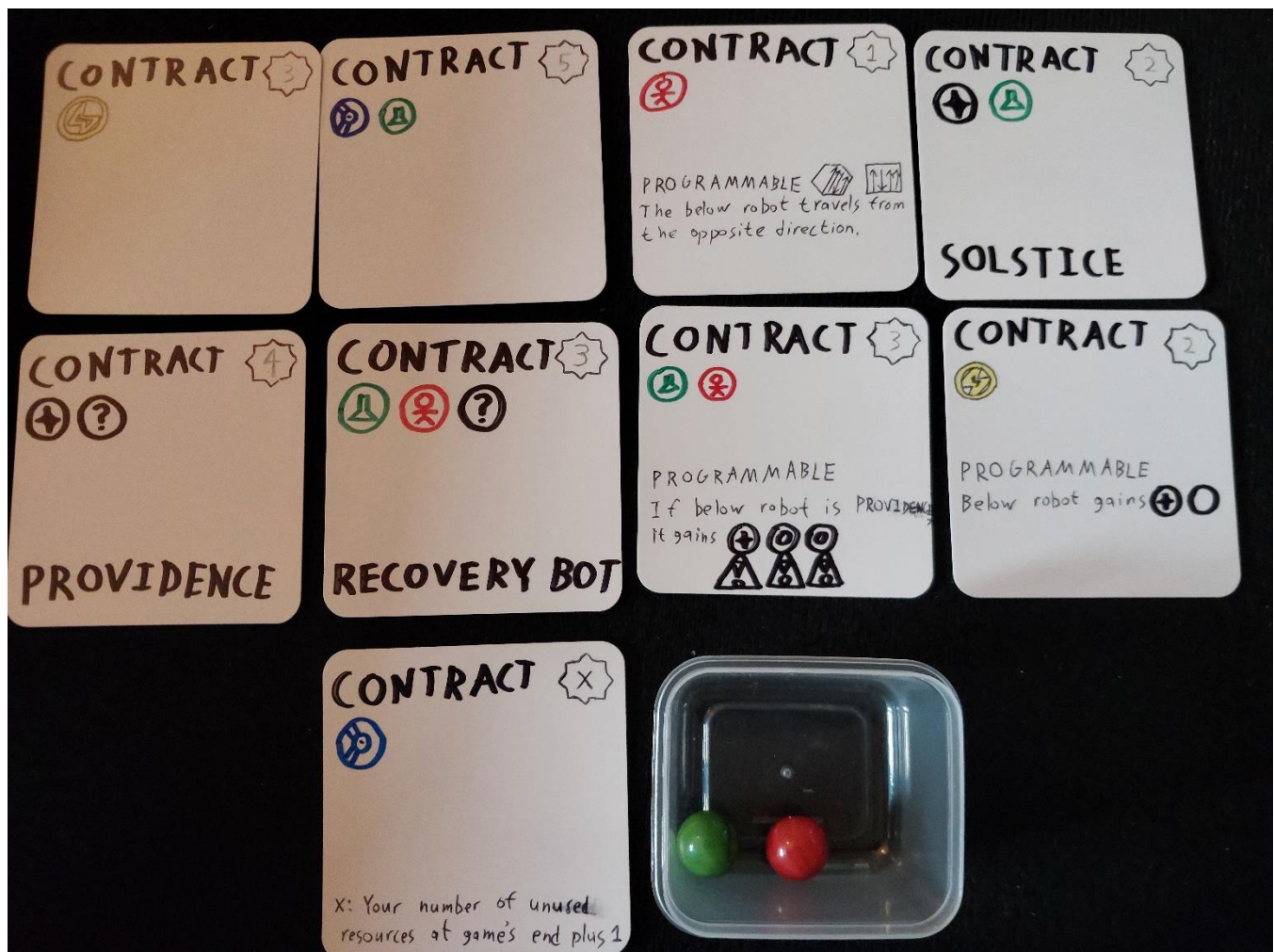
Once all players have completed fulfillment, check for the game end. If any player has 8 contracts showing (prize, robot, and discarded PROGRAMMABLE), proceed to final scoring. Any player with PROGRAMMABLE contracts in hand may choose to reveal them to bring their total revealed contracts up to 8, otherwise the game continues. Empty any remaining resources on the ship board into the resource pool.

Final Scoring

Final scoring is based on the following tiebreaking criteria.

1. Greatest total points from all fulfilled contracts
2. Most contracts fulfilled
3. Greatest total number of resources present across costs in all fulfilled contracts
4. For each type of resource in order of decreasing value counting wild costs last, the greater number of that type of resource present in the costs on all fulfilled contracts

If these are all equal, then tied players are awarded a shared victory.



This depicts a final score of $3+5+1+2+4+3+3+2+(1+2) = 26$ points.

FAQ

What happens if a PROGRAMMABLE contract grants my robot redundant collection icons? There is no inherent benefit, but both icons do contribute to diligence.

What happens when a PROGRAMMABLE contract is revealed that indicates it requires a specific board shape other than the one in use? Return it to the box and replace it. Alternatively, you may filter out such contracts before the game begins.

What happens if I don't have 4 robots in hand to program or a player otherwise programs too few? Program as many as possible. When resolving, they will be considered to occupy the leftmost possible starting spaces at their designated starting position.

What happens if a player makes a mistake like programming too many robots? The bottommost robot(s) exceeding the playable amount immediately return to the hand without effect.

What happens when multiple players tie on every comparison for collection? They must resolve collection as simultaneously as possible. Each robot is considered to step one space at a time, fully resolving that space before all robots move on to the next. See next question concerning conflicts. After this, if one or more players collected fewer resources, they resolve fulfillment first. If players collected the same number, the player who discarded fewer robots during collection goes first. If still tied, then they resolve fulfillment as simultaneously as possible. Players may freely claim contracts they would like to fulfill with sufficient resources, and at any point, another tied player may challenge such a claim for which they also have sufficient resources. The contested contract is then locked, making it unable for any tied players to fulfill, and those resources that were considered sufficient for any contesting players are then unusable for the rest of that fulfillment phase unless all other players back down during that fulfillment. Only once all players agree are contracts fulfilled at once. Locked resources and contracts then become available once again for the next round.

What happens when multiple robots cross the same space during the same collection phase? Nothing happens at first. There is only a conflict when robots would attempt to collect the same resource. Break such ties as follows.

- First to arrive (the fewest number of spaces traveled to get there)
- Lowest individual diligence
- Greatest individual priority

If these are all tied, then both robots are damaged from collision: they are discarded regardless of capacity but do return with any successfully collected resources.

How does, "The below robot collects after the above robot in the same row," work regarding the above two questions? It travels one step behind the above robot.

What happens if a player has both the contracts that say, "You win all endgame tiebreakers," and "You lose all endgame tiebreakers"? These abilities cancel each other out one-for-one, so that player would resolve endgame tiebreakers normally.

Why is the distinction made between newly and previously collected resources? For each round, the distribution of resources present in the resource pool should remain as consistent as possible based on component limitations. This can be done in multiple ways, but these rules list the intended solution. A simpler alternative given sufficient resources is to always pull from the board, replace from the supply, and then spend to the supply. See the next question concerning depleted resources.

What happens if a type of resource is needed to refill the resource pool but is depleted from the supply? Select one of the next-lowest value resource still present per missing resource. In the exceedingly rare event there are not enough resources left to fill the ship board, the economy crashes and all players lose.

What happens if a contract is programmed illegally, i.e. the effect cannot apply based on programming location? Ignore it and discard it.

Acknowledgements

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