

Goal and rules of vacuum_quest()

Goal of the game: The objective is to help players learn how to assemble functions and variables in order to make small programs. Those programs can then be used to alter the flow of the game.
This in turn will teach players the basics of algorithms.

Winning condition:

In order to win, a player must make their robot vacuum cleaner reach the trash first.

This means that they must reach the TRASH() tile located at the end by moving throughout the entire board.

Basic rules:

Each player controls a pawn that they move with a combination of card use and dice throws.

At the start of the game, each player draws 2 cards from the deck.

The maximum amount of cards a player can keep is 5.

If a trap is laid on a special tile, both the tile and trap effect will happen, and if the player land on another special tile they will be also affected by that tile, even if it is the same turn.

Cards:

Most cards can be used with each other in order make a program that will move or affect players.

(Their use and requirements are explained on the card themselves if you don't wanna read this)

The different existing cards are the following:

[Movement_Card() : Move target] cards are used to make players move, and in order to work they require to be used with a [Target_Card()]. They can also be used with a [Bonus_card()] for extra movement.

[Movement_Card() : Immobilize target] cards are used with a [Target_card()] and makes the selected players unable to move or be moved until the end of their turn.

[Special_Card() : Shield against all effects] cards are used with a [Target_card()] in order to make the selected players immune to trap and untargetable for a turn.

[Special_Card() : Switch to nearest] cards are used in order to switch places with the nearest player, be it forward or backwards.

[Special_Card() : Drop all cards] cards are used with a [Target_card()] in order to make the selected players drop all of their currently held cards.

There exists 3 different [Target_Card] types, those are:

- [Target_Card(): Target all players] → this one makes the program target all players
- [Target_Card(): Target one player] → this one makes the program target one player
- [Target_Card(): Target current position] → this one makes the program lay it's result on the current tile, like a trap.

There exists 6 different [Bonus_Card()], those are:

- [Bonus_Card(): +1], [Bonus_Card(): +2], [Bonus_Card(): -1], [Bonus_Card(): -2], [Bonus_Card(): -4]
- those cards adds or reduces the movement amount of the resulting program
- [Bonus_Card():inverse dice] → this card is used to inverse the dice amount

Board tiles:

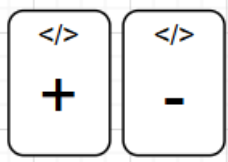
START() is where players put their pawns at the start of the game

TRASH() is the end tile that players must reach in order to win

ERROR tiles forbids the player from using a program for a turn

STUN tiles forbids the player from moving (with dice or programs) for a turn

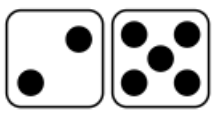
Those tiles are card tiles.



Players landing on those tiles either: draw a card (+) or drop a card (-)

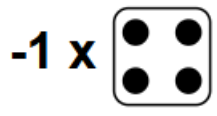
In this example, the player must draw a card and drop a card

Those are double dice tiles.



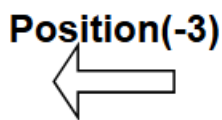
Players landing on those tiles must use their dice twice for the next turn.

Those are reversed dice tiles.



Players landing on those tiles must use the inverse amount of the dice for the next turn. (For example: 5 → -5)

Those are position affecting tiles.



Players landing on those tiles must move the amount on the board depending on the amount shown between the parenthesis (In this example, -3)