

# Robogram<sup>®</sup>

## Rule Book

# RoboGram Rules

## How to play

Robogram is a fun game designed to teach kids how to take on their opponents in epic cyber battles and as a side effect, it will introduce them to the basic principles of computer coding.

To win you must defeat your opponent by breaking through their firewall and attacking their server until it crashes.

Easy right? Well, be careful because you have to protect your own server from attack by building a strong firewall too!

The first person to crash their opponent's server by reducing its hits points to zero wins the game.

## Programming language Decks

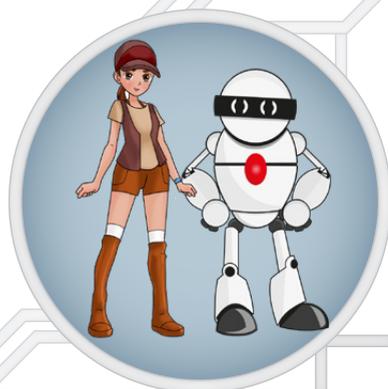
This starter pack comes with two program language decks: Ruby and C++. Extension decks will become available in the future.

### Ruby

This language has very powerful commands which can easily break through firewalls without modifications. However, these commands resource intensive so robots of this kind have lower available memory. To win with a Ruby deck, you'll need to use lots of Function and Object cards to create your program.

### C++

This language is very flexible and while the cards are not as strong individually, they can quickly add up to cause major damage. C++ Robots have plenty of memory so it easy to build up a very accurate program to break through firewalls with the help of Iterations and Function cards.



# Game set up



## Pick board & language

### Pick a board & language

Each player gets a game mat and picks a program language deck (For example C++ deck or Ruby deck.) Each deck is designed to function as a complete unit and they cannot be mixed.



## Select a Robot card

### Select Robot card

Each player then selects a robot from their deck – each robot is different and has special abilities. The robot is placed face-down in the 'Robot' section of the player's game board. (Remove the remaining robot cards – as they are not needed for the rest of the game.)



## Select a Firewall card

### Select Firewall card

Each player then selects a Firewall card of their choice from the deck and places it face down in the 'Firewall' section of their board.



## Shuffle the deck

### Shuffle the deck

The rest of their deck is shuffled and placed face-down in the 'Download' section of their board.



## Place dice

### Place the dice

Each player places their 3 six sided dice at 6 on the purple 'server points' section of their board to represent their server points (if you don't have dice, paper and pen will do).



## Pick 5 Cards

### Pick 5 cards

Each player takes the top 5 cards from the 'Download' section of their board and keeps them in their hand ready to play.



## Reveal

### Reveal

Players each reveal their overturned robot and firewall cards and the battle commences.



## Playing the Game

Randomly decide who goes first by rolling a dice or by tossing a coin. Players then take it in turns to have their go.

There are five steps in each turn:



### Download phase

The first step of each turn is to 'download' the top 2 cards from the 'Download' section of the player's board. These are added to the player's hand.



### Install phase

Next, the player decides which cards they want to 'install' onto the game-board. They can install a maximum of two cards from their hand during a turn e.g. Program, Firewall, or Upgrade. The cards need to be placed in the appropriate sections of the board.



### Programming phase

Players use the 'Program' section of the board to create a program that will break through the opponent's Firewall (see: How to Create a Program). When a program card is not being used in a program it can be stored in the 'Program Pool'.



### Execute program

Once a player has created a program they can execute it by saying "Run program!". A player cannot change the program once they have run it - even if they realise they have made a mistake.

The program runs and if the firewall is successfully defeated then any remaining points are taken away from the server's 'Hit Points' as permanent damage.



### Reorganise firewall

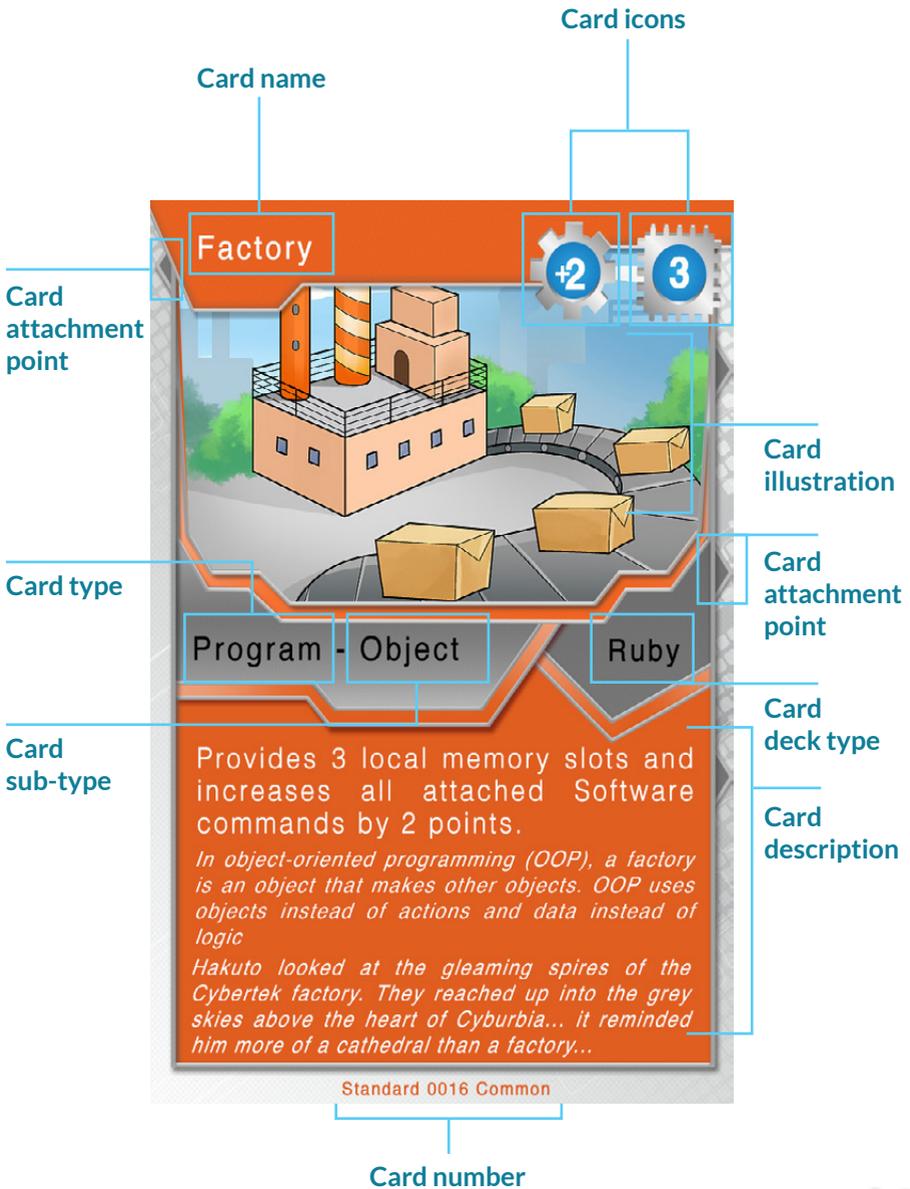
Before handing over their turn to their opponent a player can reorganise their own firewall. Remember to make your firewall as strong as you can!



### End of the turn

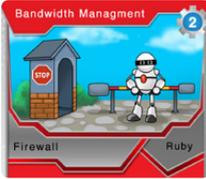
Firewalls are restored to their original strength on the end of each turn. Server damage is permanent.

# Card Elements



# Card Types

## Firewall cards (red)



Firewall cards are used to protect your server and are placed in the 'Firewall' section of the game-board. Player attacking firewalls must attack them from 'front to back' and only when there is no Firewall left will the server take damage.

## Robot cards (blue)



Robot cards are central to the game. They are placed in the Robot section on the board. Robot cards can be upgraded with green upgrade cards. They run orange Program cards in their memory and convert these programs into attacks against an opponent's Firewall. Robot cards are an integral part of the game's combat mechanics.

## Upgrade cards (green)



Upgrade cards are placed in the 'Upgrade' section of the board. They are used to improve a robot's abilities.

## Program cards (orange)



Program cards are used to build programs to break through Firewalls. They are placed in the 'Command Pool' section of the board. Program cards come in five types: Command, Object, Function, Iteration, and Condition; and can do a variety of different actions which are detailed on the individual cards.

## Event cards (pink)



Event cards are kept in the player's hand and have special abilities noted on the individual cards that can only be used once in each game. After an Event card has been used, it is discarded for the rest of the game.

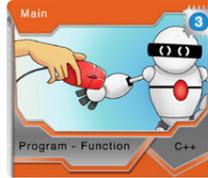
# Program card Types

## Command card



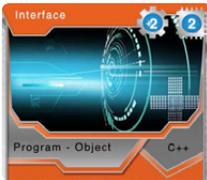
It is used to directly attack the firewalls. 3 types are available: Software, Matter and Energy.

## Function card



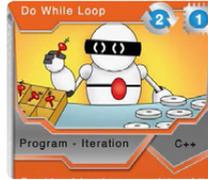
Provides extra memory slots.

## Object cards



Object cards work like Function cards providing extra memory slots, they can also improve Command cards of the same type attached to it.

## Iteration cards



Iteration cards loop any Command cards attached to it, replaying the action and doubling, or even tripling, the effect for powerful programs.

## Condition cards



Condition cards can be used to give a program some intelligence – they don't just perform an action but check what kind of Firewall they are attacking, then they can run one of the two attached cards. (For example, it might ask if a Firewall is Matter... If the answer is 'Yes' it will run the first attached card. If the answer is 'No' it will run the second attached card).

# Card Icons

## Card strength icons



The Firewall and Program cards have different types: Energy (flame icon), Software (cog icon) and Matter (atom icon). They each have different strengths indicated by the number inside the symbol.

## Memory size icons



Programming cards can be attached to Robot cards and any other Program cards which carry a memory icon. The Memory icon is represented by a memory chip. This number shows how many cards can be attached to the card.

## Altering icons



Some icons on Upgrade or Program - Object cards have a positive or negative modifier number. These cards can't be used when attacking directly. These cards can only improve other cards, like adding more memory for a robot, improving other programming cards or they can be used to weaken an opponent.

## Iteration icons



The Iteration icon is represented by a loop. These cards are used to loop any attached cards. The Iteration cards allow an attached card to be looped as many times as the number shown on the icon.

## Conditional icons



Conditional cards carry one of the other icons like Energy, Software or Matter. When using a conditional card, if the condition matches an opponent's Firewall type then the conditional effect applies.

For example, "Is the attacked Firewall made of energy?". If the answer applied to the conditional card, then the players run the relevant card.



# How to Create a Program

## Programs

Programs are created in the 'Program' section of the game board from cards stored in the 'Command pool'.

Program cards, if placed in the correct order, can break through Firewalls by equalling the Firewalls score. Any additional points will roll over to damage the server, unless there is another Firewall in place. Program cards can only damage the appropriate Firewalls. For example an Energy Firewall can be only damaged by Energy Program card etc.



Firewalls can be defeated by an attack with an equal or greater power Command card.



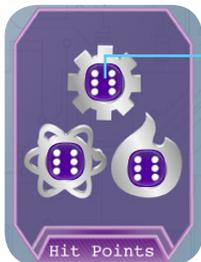
Multiple weak Program cards can add up to defeat a strong Firewall.



Strong Command cards can defeat Firewall. However if there is an additional Firewall of a different kind the damage will not roll over.



Stronger Command cards can overcome same type Firewalls and if there is no Firewall left any additional damage will roll over to damage the server.



After all Firewalls are down, the server can be damaged by same type of program cards.



# How memory works



## Memory slots

A Program card always takes one memory slot.

Robots with 4 memory slots can accept four program cards.

Little triangles on the edge of the cards demonstrate how to attach cards.

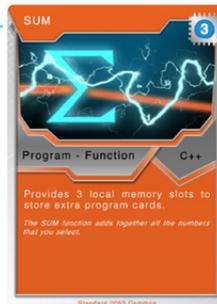


## Nesting

Special Program cards can extend the available memory. A Function card or Object card can have its own memory slots. These cards can be fitted into a function, they will still only count as one card. This is called nesting.

Nesting is not limited. It is possible to have any level of Function inside a Function.

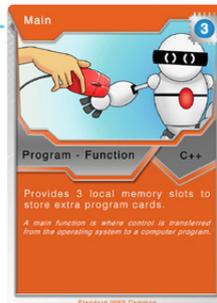
For example adding 2 Functions and an Object to one memory slot allows us to insert 6 extra program cards.



Program card

Program card

Program card



Program card

Program card

Program card

## How to win

Play continues until one player reduces their opponent's server hit points to zero. Each match is played best out of three and after round one the losing player decides who goes first. There is a 45 minute time limit for each match. If neither player is ahead after 45 minutes the match is considered a draw.

### Strategy

Players do not need to attack every turn, indeed it's only worth attacking if you can actually get through an opponent's Firewall.

Sometimes it's better to dig in than to attack. A strong Firewall is always a good idea, but then you won't win games without getting your hands dirty.

The key to developing an effective strategy is understanding how the cards work together. The synergies which develop between them is where the real mastery begins.



Robogram® is a fun game designed to introduce kids to the basic principles of computer coding while they take on their opponents in epic cyber battles.

Robogram® is an Educational Card Game by 8 Continents Ltd.

Game design and concept by Kornel Farkas

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Character and Card Illustration by Xuyinyin

Rules text, card text by Neil D Campbell

We would like to thank Reika for inspiration.

Look forward to new decks, new stories and new adventures from the world of Robogram®.

Website: <http://www.robogram.online>

Please find us on Social Media <http://www.facebook.com/robogram.online/>

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