User Guide for Fury Breakout 2020

A remake of Super Breakout (1978 Atari)

Fury Breakout 2020 is based on Super Breakout (1978 Atari). It simulates faithfully the original arcade machine.

The objective of the game is to, before losing all your 3 lives, break as many blocks as possible by using the walls and the paddle(s) to bounce one or more balls into the blocks.

Game modes

Double – This mode features two paddles, displayed at the bottom of the screen one above the other, and two balls that are served in rapid succession each round.
Cavity – In this game mode, there are two captive balls between the bricks. One ball is served and once you remove enought bricks to release a captive ball from its cavity, the score doubles for each destroyed brick. If the third ball is freed, the score triples for each brick hit.
Progressive – One ball is served and the brick walls move downwards depending on how many times the ball has hit the paddle. The rate at which they move is progressively faster, making the game more and more challenging.

In each game mode, the player has 3 lives.

Scoring Charts

Points are scored by breaking blocks. The blocks break when hit by a ball once, and the amount of points scored this way varies depending on the current game mode:

Table 2-1 "Double" Breakout Scoring Chart

Color	brick Row	1 Ball in Playfield	2 Balls in Playfield
orange	1	7	14
orange	2	7	14
orange	3	5	10
orange	4	5	10
green	5	3	6
green	6	3	6
green	7	1	2
green	8	1	2

Table 2-2 "Cavity" Breakout Scoring Chart

Color	Brick row	1 Ball in Playfield	2 Balls in Playfield	3 Balls in Playfield
orange	1	7	14	21
orange	2	7	14	21
orange	3	5	10	15
orange	4	5	10	15
green	5	3	6	9
green	6	3	6	9
green	7	1	2	3
green	8	1	2	3

Table 2-3 Progressive Breakout Scoring Chart

Color	Points per Brick
blue	7
orange	5
green	3
yellow	1

<u>Ball Speed</u>

The ball speed increases during each turn. The ball starts at its lowest speed right after the serve and it gets faster the 4th, the 8th, and the 12th times a paddle is hit. An immediate and big speed up occurs when the ball hits a highpoint (5 or 7 point) brick.

<u>Single/Multiplayer</u>

Singleplayer – You are playing alone and as mentioned before, the goal is to break as many blocks and reach the highest score as possible.

Multiplayer – The objective of this mode to beat your opponent by getting more points than he does. The two scores (one for each player up to a maximum of 2) is shown at the bottom of the screen.
After every turn the player switches. Example: player 1 reaches 20 points but loses a life, his turn finishes and it's now time for player 2 to play his first ball. After player 2 has lost his ball it's player 1's turn again and so on.
After every player has lost his 3 lives, the player with the most points wins.

How to run

<u>NOTE</u>: The first step is to make sure that the library "rsound" is installed on your device. If this is not the case, you have to follow the instructions at the end of the guide before you can start.

Open the .rkt file in DrRacket and press <u>RUN</u>.
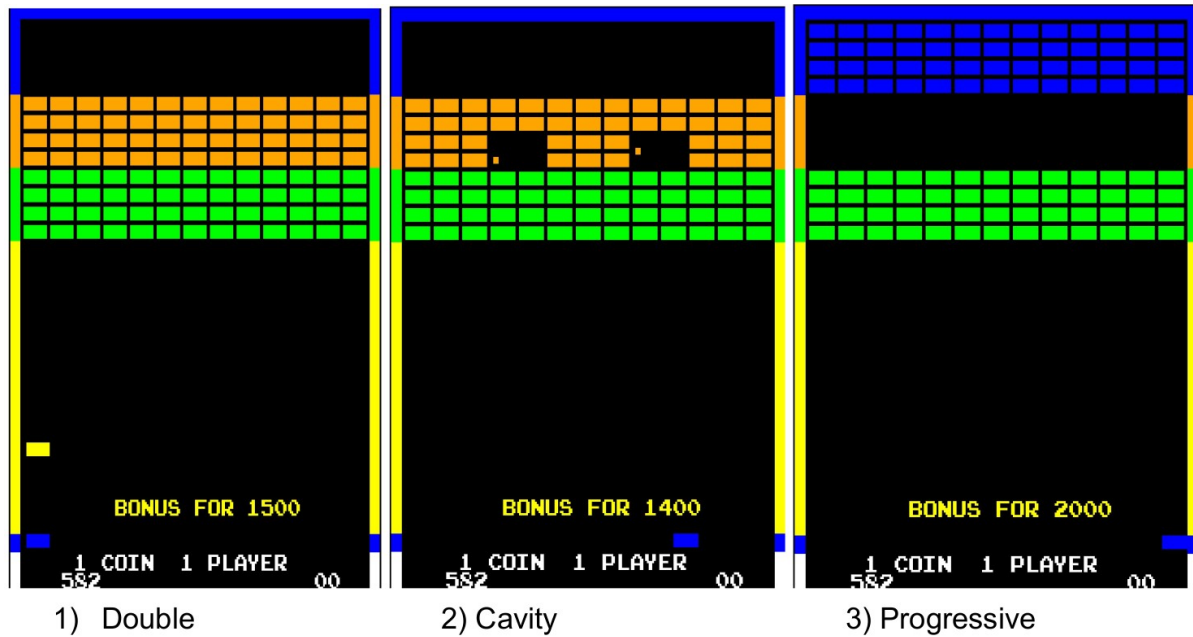It opens a new window where the starting screen of Fury Breakout 2020 appears.

The Keys to control the game are the following:

- **ENTER**

Once you see the Attract mode you can press <u>ENTER</u> to choose the game mode.

- **A** or "**left arrow**" / **D** or "**right arrow**"

This allows you to switch between 3 different game modes:
the "<u>Double</u>", the "<u>Cavity</u>", and the "<u>Progressive</u>" mode.

1) Double	2) Cavity	3) Progressive

Once you have chosen which mode you want to play, you have to **decide** whether you want to play in **singleplayer** or with your friend in the **multiplayer** mode.

- **1** - singleplayer

After you have chosen one of the playfields and you want to play as singleplayer, press "1" to use a coin previously inserted by pressing "ENTER".

- **2 –** multiplayer

If you want to play the multiplayer mode press "ENTER" again and then "2" to use both the inserted coins and start the game in the player vs player mode.

- **SPACE-BAR**

Now the game mode has been selected and you are ready to play. If you press the spacebar the ball is served.
The spacebar is also needed after losing a live to serve a new ball.

- **MOUSE**

With the mouse you control the paddle.

After a game is finished and you don't have any coins left you get back to the Attract mode.
Otherwise, if you have enough coins left you get back to the "READY TO PLAY" mode, where you can immediatly start a new game.
HAVE FUN!

<u>Install rsound</u>

To be able to use the game fully you have to do a few extra steps if you don't have the library "rsound" installed on your device. Here the instruction:

1 In DrRacket, go to "File > Package Manager", under the "Do What I Mean" tab, type "rsound" in the "Package Source:" window and press enter.
2 Open a terminal and tipe in the following commands:
    - At first choose a folder: **cd yourFolder**
    - **sudo apt-get install libasound-dev**
    - Go under http://www.portaudio.com/download.html and download in this folder the latest stable version (pa stable v190600 20161030.tgz (06.12.2020))
    - **sudo su root**
    - **tar xvfz pa stable v190600 20161030.tgz**
    - Descend in the extracted zip folder and tipe **./configure**
    - Make sure there is written "ALSA …………………. yes"
    - **make**
    - **sudo make install**
    - **ldconfig**