

MM

# **MASTERMIND 2.0 CONSOLE USER GUIDE**

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## Rules and description:

Mastermind is a code-breaking game invented in 1970 by a postmaster and telecommunication expert named “Mordecai Meirowitz”.

This is a game for 2 players: codeBreaker(player1) and codeMaster(player2 or COM).

The “codeMaster” will choose a pattern of four key Pegs. Duplicates are allowed which means that four pegs with the same colour are allowed (Example: ).

Gray pegs are not considered .

The secret code chosen is stored and hidden, visible at the end of the game only.

The codebreaker needs to guess the pattern of key pegs and their positions within 10, 8 or 6 turns.

To swap colours just click on the pegs (right or left).

Codebreaker must remember his/her previous choice because after pressing the confirm button previous colours will be hidden.

Each time the codeBreaker will try to guess the pattern, the codeMaster will provide feedback placing from zero to four “key pegs”. A white key peg for a correct colour in a wrong position, and a red key peg for a correct colour and correct position.


Guesses and feedback will continue until the codeBreaker will guess the entire pattern or the attempts (depending the level chosen: easy 10, medium 8, hard 6) will run out.

At the end of the game, restart button and playing time will be displayed.


(Ford, C. 2020)

(Mastermind Game Rules n.d)

Examples: of pegs      1   2   3   4


codeMaster pattern : 

Output:

codeBreaker pattern 1 : 


1  , 2 

ATTEMPTS --

codeBreaker pattern 2 : 


3 

ATTEMPTS --

codeBreaker pattern 3 : 

0 pegs

ATTEMPTS --

codeBreaker pattern 4 : 

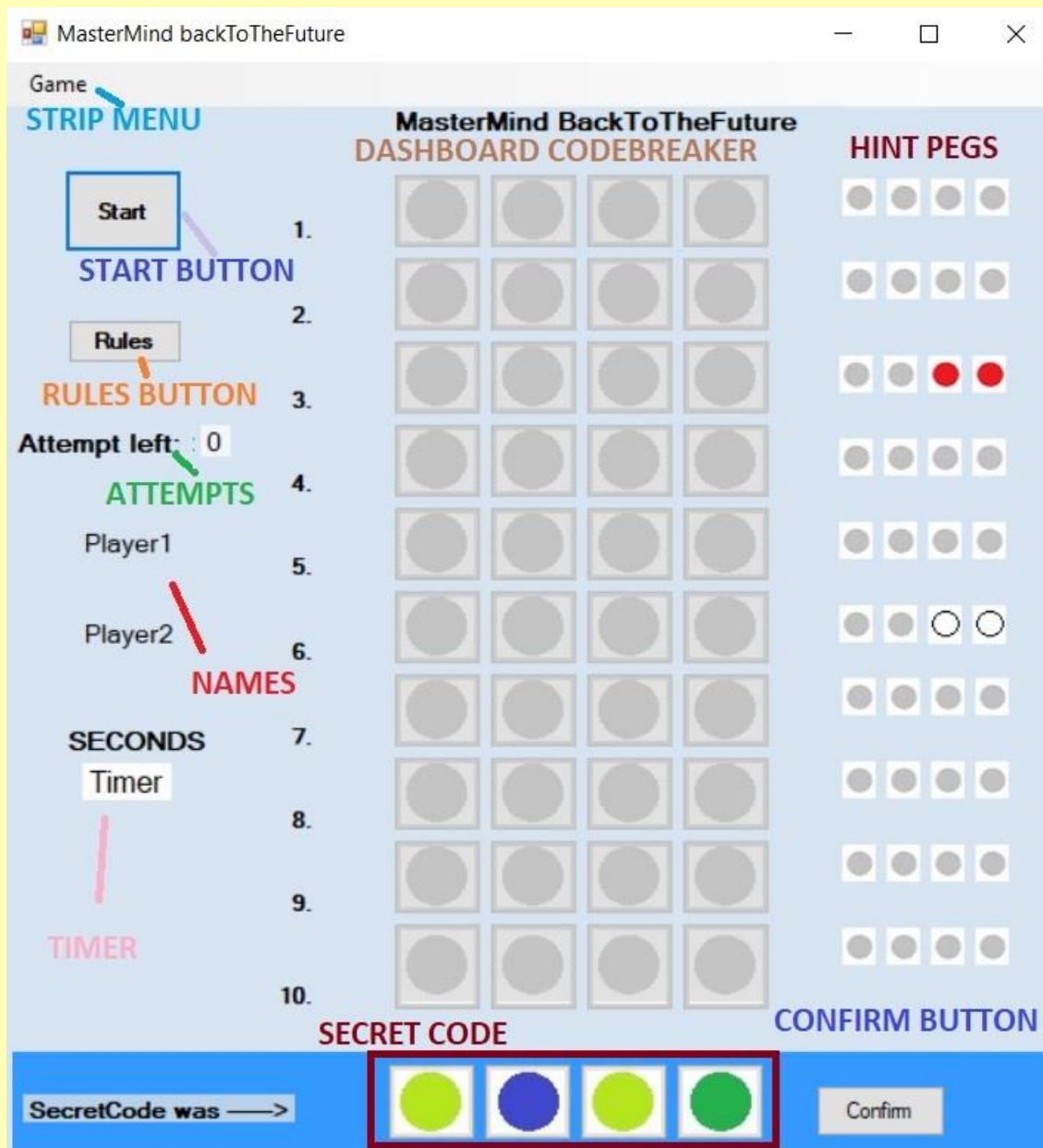
4 

CODEBREAKER WIN

(Basile, G. 2020. Assignment 1 – OOP)

The following pages will show you step by step how to play:

## User Interface:

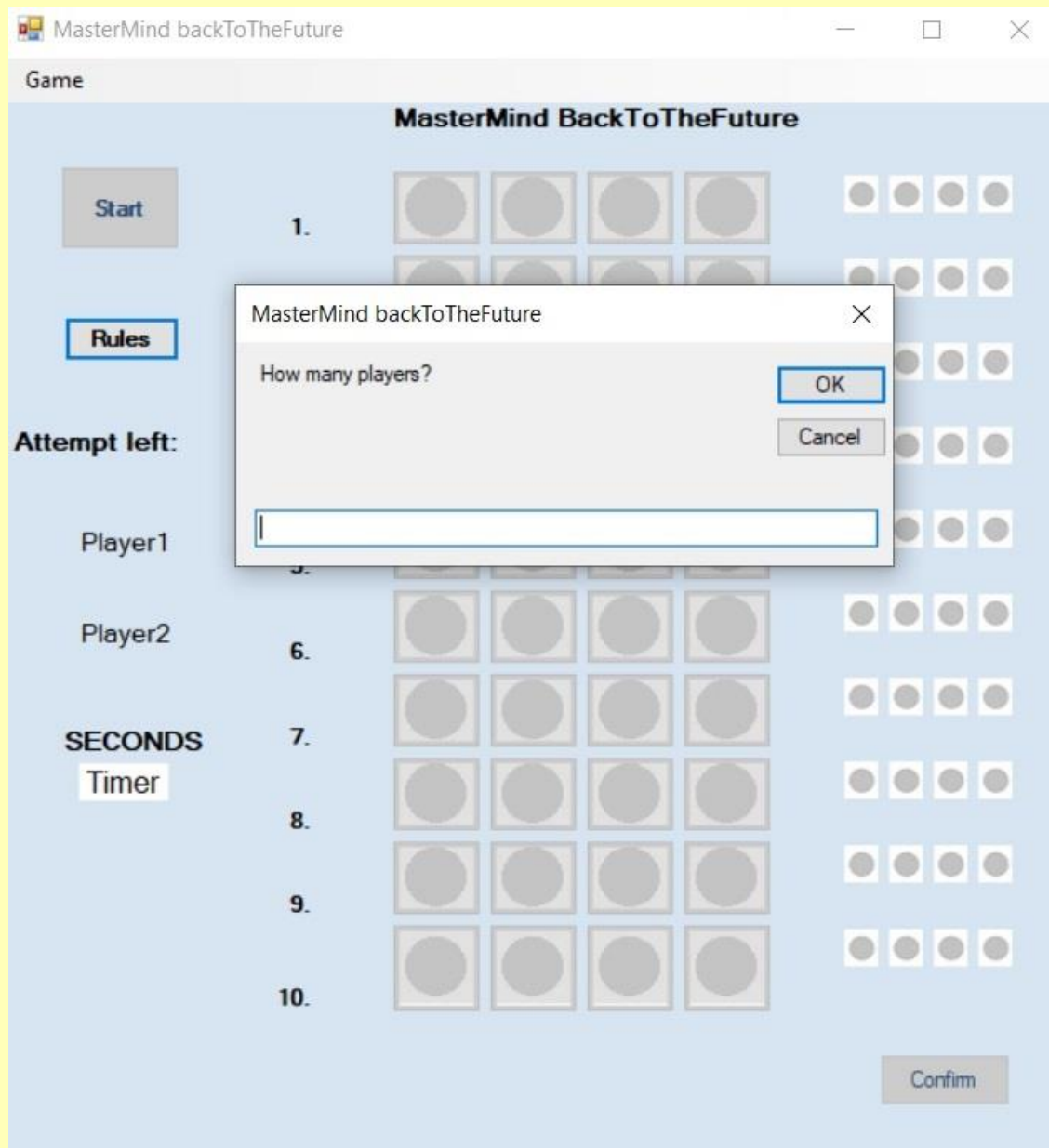


(Basile, G., 2020. 'GamePlay UserInterface')

## Players:

Single player mode is a game for codeBreaker VS COM.

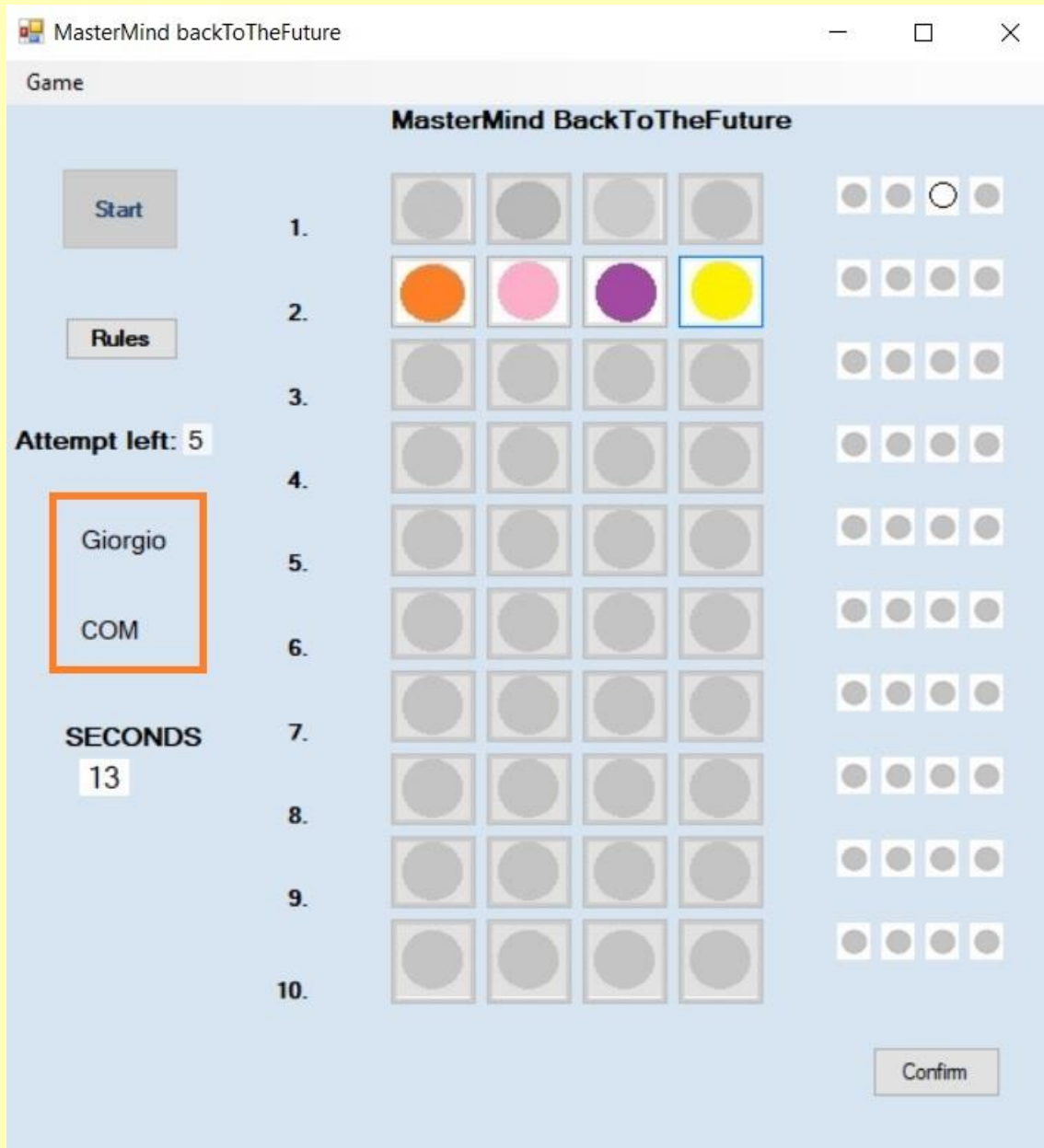
Multiplayer mode is a game for codeBreaker and codeMaster (humans).



(Basile, G., 2020. 'GamePlay Players')

## SinglePlayer:

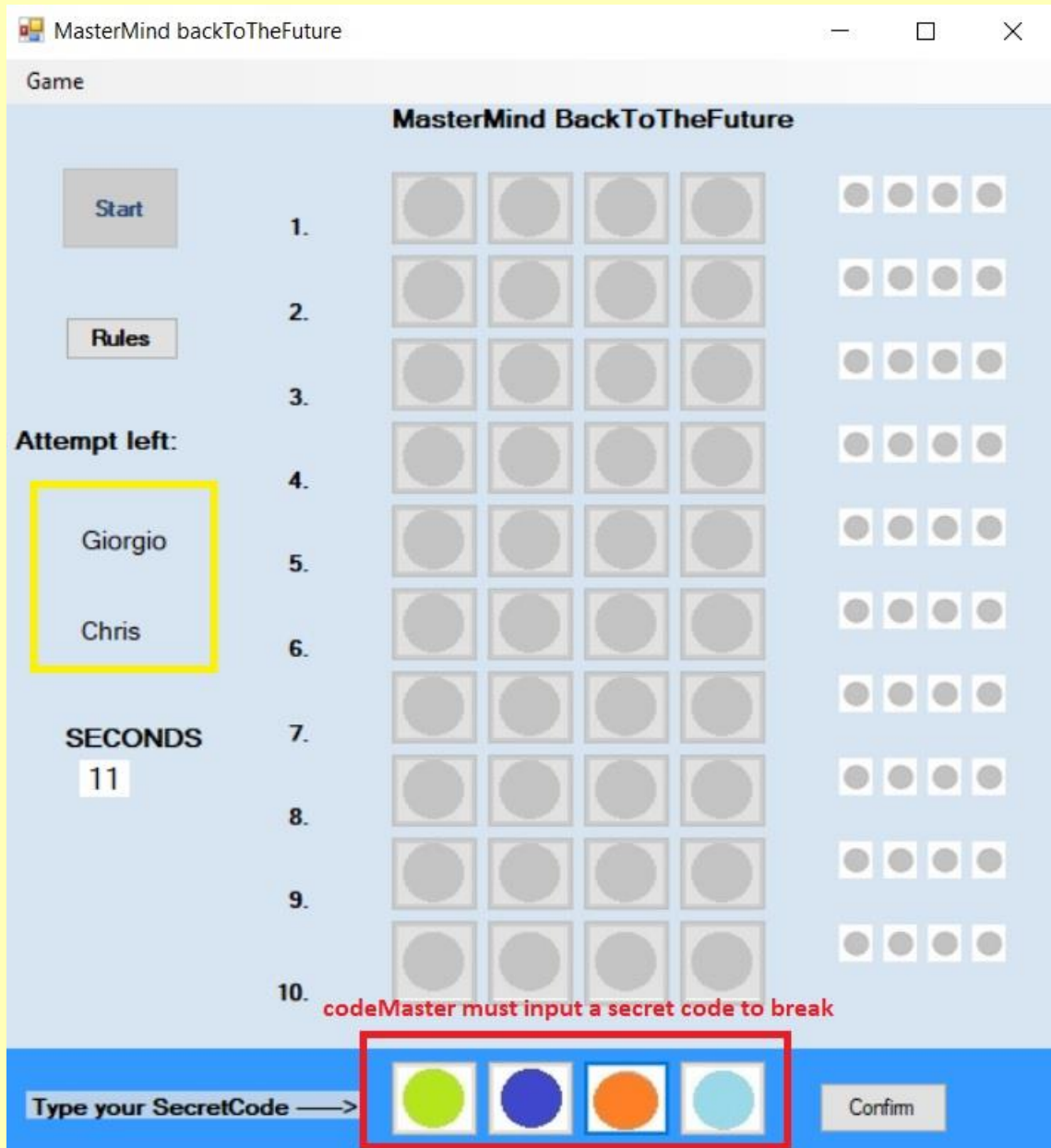
The secret code will be generated by “COM” between 8 random coloured Pegs.  
codeBreaker VS COM.



(Basile, G., 2020. 'GamePlay SinglePlayer')

## Multiplayer:

Multiplayer mode is a game for codeBreaker VS codeMaster (both humans).  
The secret code will be chosen by codeMaster (4 coloured pegs from a set of 8 colours).

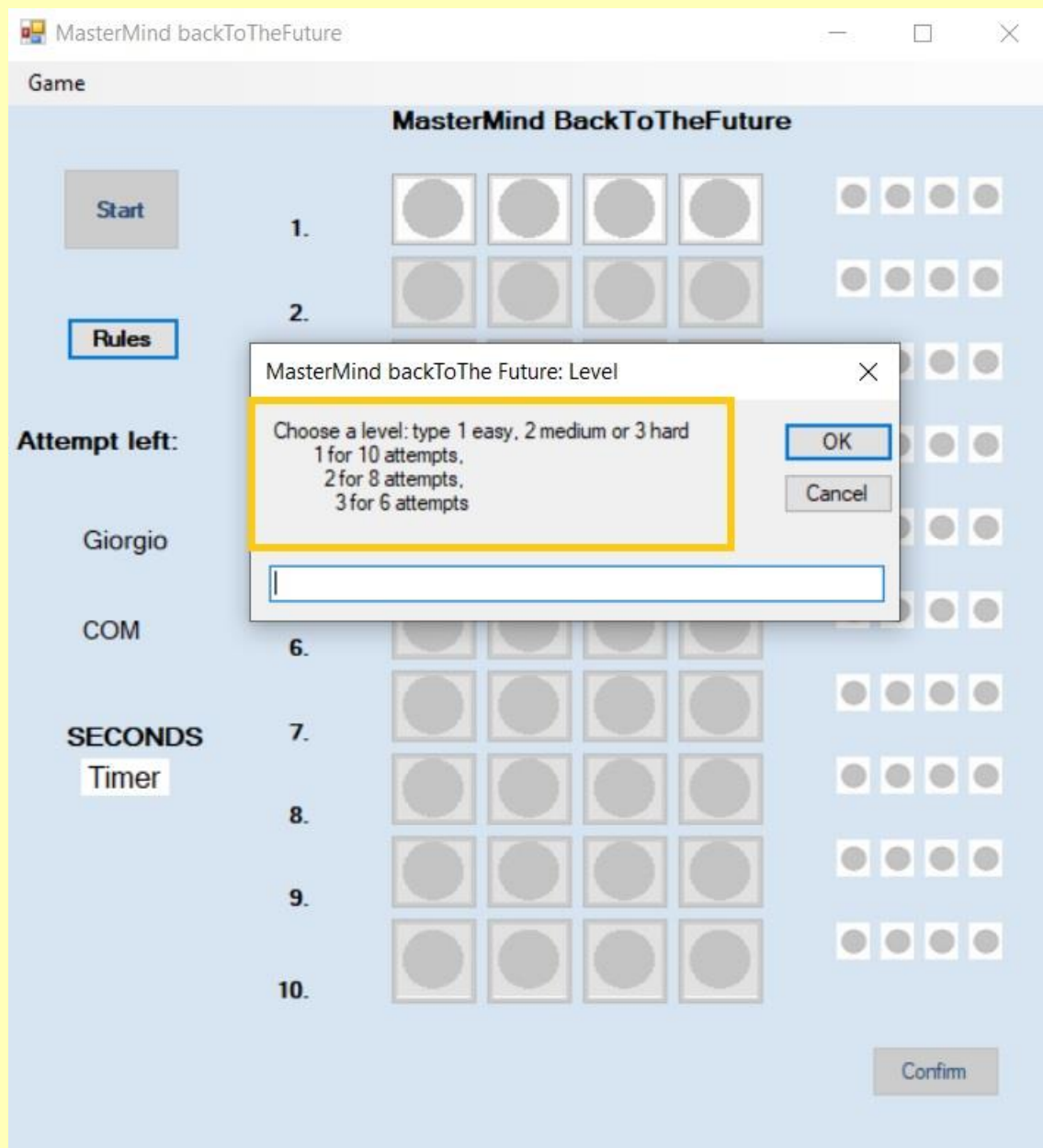


(Basile, G., 2020. 'GamePlay Multiplayer')

## Levels:

Users can choose the maximum number of attempts before the game will finish. If the codebreaker will run out of attempts he will be the loser.

- 1 for easy (10 attempts),
- 2 for medium (8 attempts),
- 3 for hard (10 attempts).



(Basile, G., 2020. 'GamePlay Level')



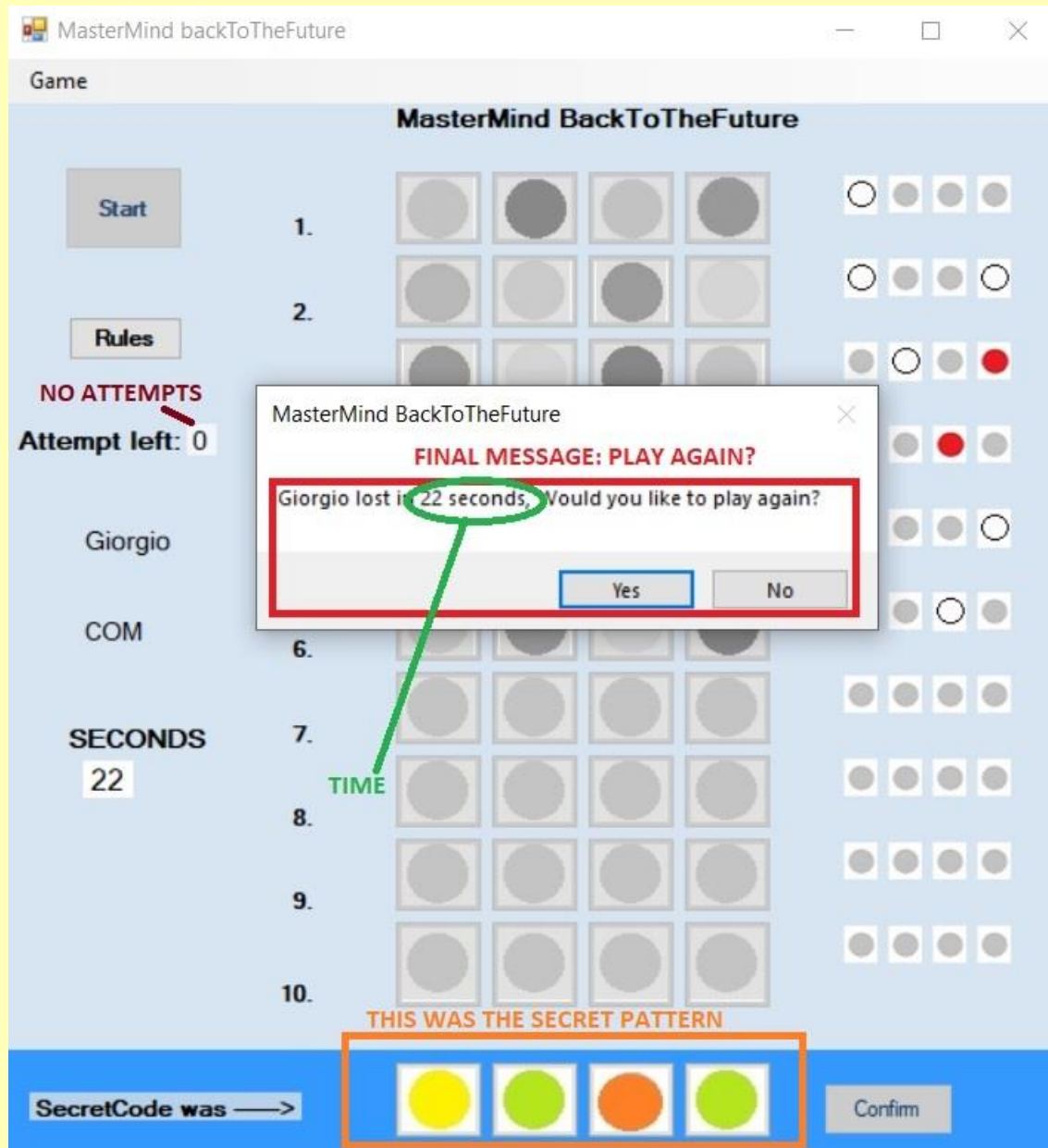
## End of game:

If the codebreaker will guess the entire pattern of pegs (winner), or will run out of attempts (looser) the game will terminate.

Playing time is shown as well.

## First case: Loser

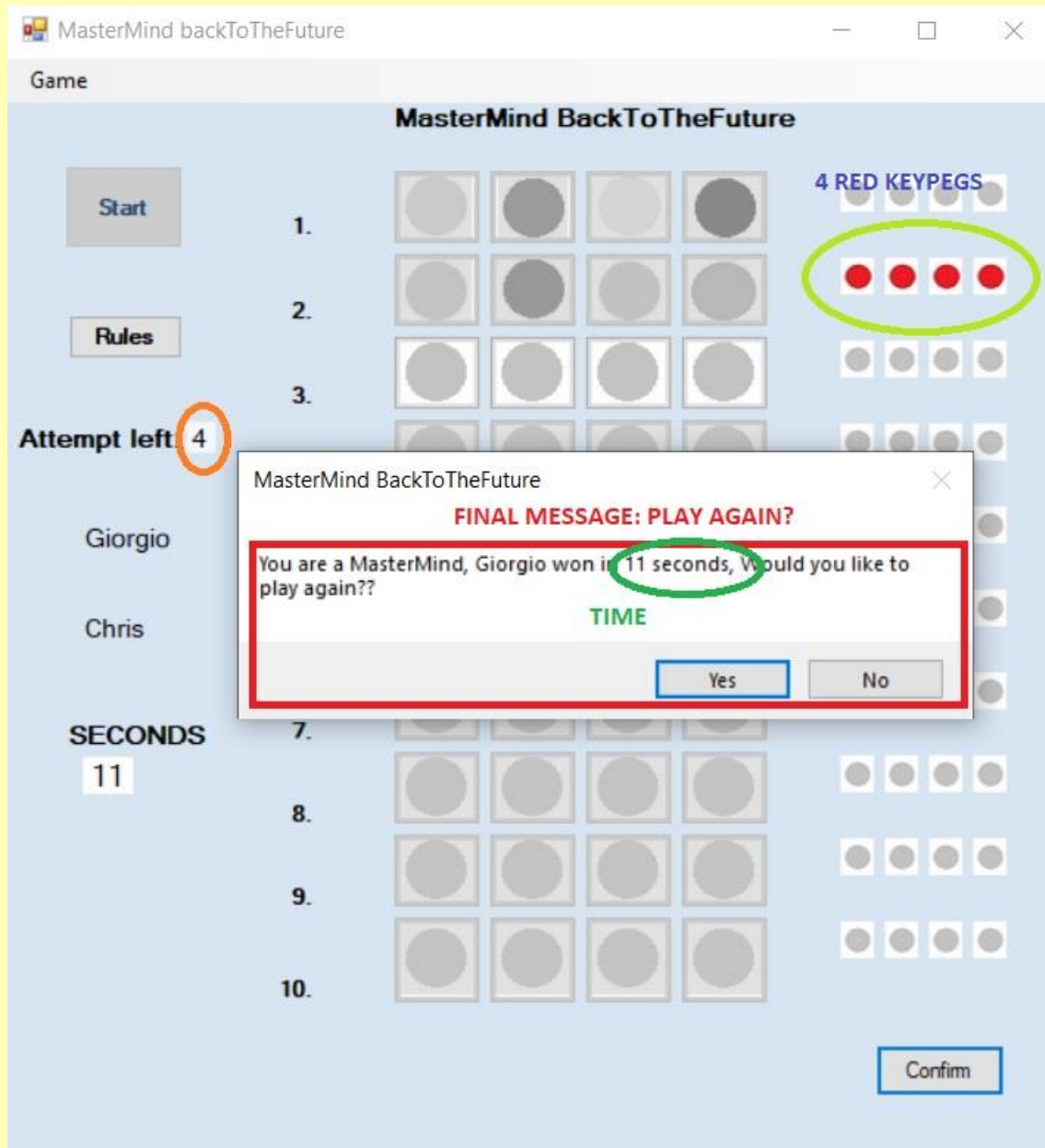
No attempts left.



(Basile, G., 2020. 'GamePlay EndOfGameLooser')

## Second case: Winner

4 Red key pegs.

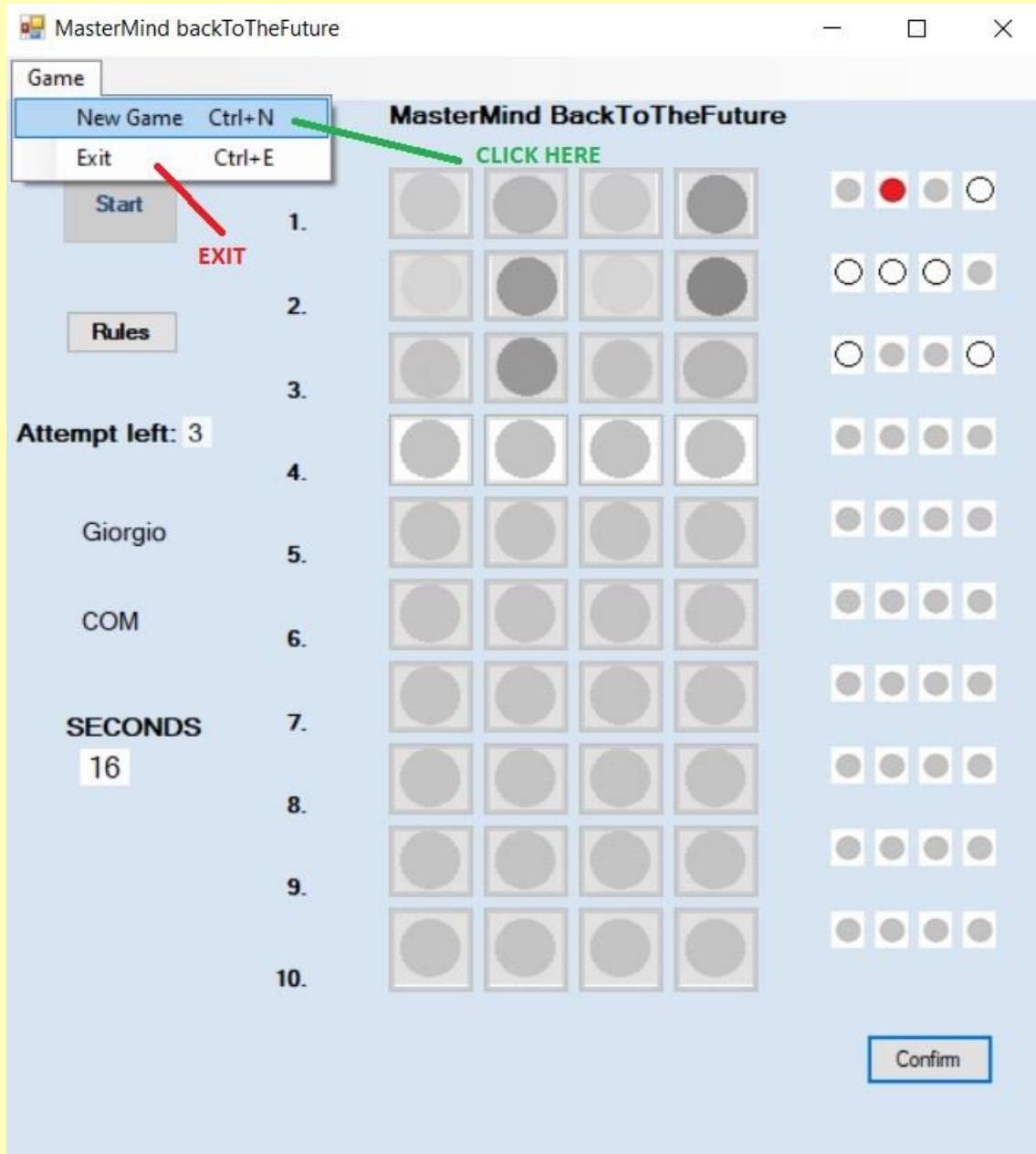


(Basile, G., 2020. 'GamePlay EndOfGameWinner')

## Menu:

If players wish to manually restart the game, open the menu and select “New Game” or use the shortcut CTRL + N.

If you want to stop playing the Game click on “Exit” or use the shortcut CTRL + E.



(Basile, G., 2020. 'GamePlay Menu')

Thank you for playing with us!

Support centre:

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## References:

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- Ford, C., 2020. *CITY101 Object Oriented Programming Module Guide*. Plymouth p 3
- Magisterrex.files.wordpress.com. n.d, *Mastermind Game Rules*. [online] Available at: <<https://magisterrex.files.wordpress.com/2014/mastermindrules.pdf>> p 3
- Basile, G., 2020. *'GamePlay UserInterface'*. University of Plymouth, Plymouth p 4
- Basile, G., 2020. *'GamePlay Player'*. University of Plymouth, Plymouth p 5
- Basile, G., 2020. *'GamePlay Single Player'*. University of Plymouth, Plymouth p 6
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- Basile, G., 2020. *'GamePlay Level'* University of Plymouth, Plymouth p 8
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- Basile, G., 2020. *'GamePlay Menu'* University of Plymouth, Plymouth p 11