

Collecto Game Rules

Software System
Programming Project 2020/2021



Version 0.1

This document describes the rules for the Programming Project game of 2020/2021. The rules as stated in this document (might) differ from the official rules. In case of a difference, this document is leading. If there is a game breaking mistake in this document (e.g. an uncovered edge case or clashing rules), please send a mail to Ömer Şakar (o.f.o.sakar@utwente.nl).

CREDITS: The text is based on the original document explaining the rules ¹.

¹See https://foxmind.com/wp-content/uploads/2019/10/Collecto_Rules_print.pdf

Game

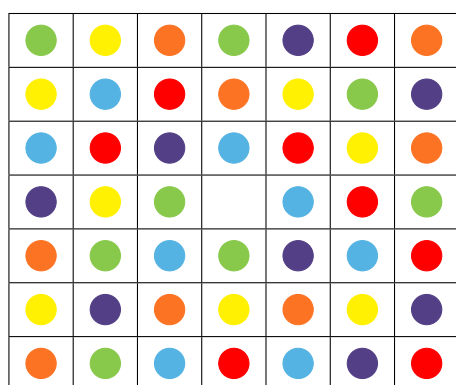
Collecto is a two-player board game where players move lines of balls around a board to get points.

Contents of the gamebox

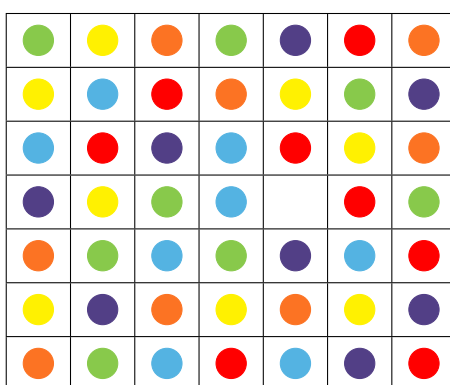
- The board: A 7-by-7 grid onto which the balls can be placed.
- 48 balls: The balls come in six colors (blue, yellow, red, orange, purple and green) and there are 8 balls for each color.

Setup

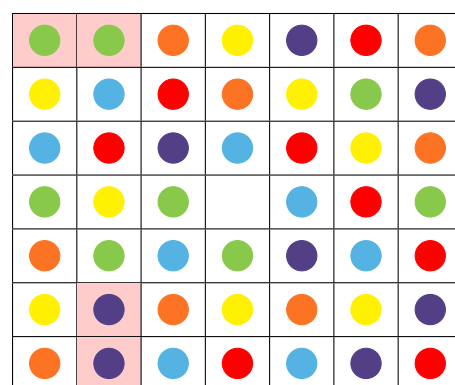
The game starts with the 48 balls distributed over the board randomly. The center of the board is left empty and no two balls of the same color can be (horizontally or vertically) adjacent of each other.



Valid initial board



Invalid initial board:
The center of the board is not empty.



Invalid initial board:
There are balls of the same color adjacent of each other.

Rules

The player who starts is determined randomly. Each turn, a player makes a valid *single move*, or a valid *double move* if a valid single move is not possible. A move is valid if it results in at least two adjacent balls of the same color somewhere on the board.

A *single move* is performed by pushing the balls of a row or column in a direction (left, right, up or down) until all balls in that row or column are next to each other (see Figure 2) and no ball in that row or column can be pushed further towards the edge of the board. Only if a single move is not possible, that is, no single move results in adjacent balls of the same color, then a double move is allowed (see Figure 3). A double move must also result in at least two adjacent balls of the same color.

After the move, all adjacent balls of the same color are collected by the player. As you can see, every move removes at least two balls from the game board.

Yellow	Dark Blue	Light Blue	Yellow	Red	Orange	Dark Blue
Green	Red	White	Green	Blue	Yellow	Green
Orange	Dark Blue	Red	Yellow		Dark Blue	Blue
Green		Yellow			Orange	
Blue		White		Dark Blue		
Red	Dark Blue	White		Orange	Yellow	Green
Yellow	Orange	Yellow	Orange	Blue	Green	Blue

(a) Before

Yellow	Dark Blue	Blue	Yellow	Red	Orange	Dark Blue
Green	Red	Red	Green	Blue	Yellow	Green
Orange	Dark Blue	Yellow	Yellow		Dark Blue	Blue
Green		Yellow			Orange	
Blue				Dark Blue		
Red	Dark Blue			Orange	Yellow	Green
Yellow	Orange		Orange	Blue	Green	Blue

(b) After

Figure 2: Single move: moving the second column (from the left) up, resulting in three yellow balls and two red balls.

Yellow	Dark Blue	Blue	Yellow	Red	Orange	Dark Blue
Green	Red	Yellow	Green	Blue	Yellow	Green
Orange	Dark Blue	Red	Yellow		Dark Blue	Blue
Green	White	White	White	White	Orange	White
Blue						
Red						
Yellow	Orange					

(a) Before

Yellow	Dark Blue	Blue	Yellow	Red	Orange	Dark Blue
Green	Red	Yellow	Green	Blue	Yellow	Green
Orange	Dark Blue	Red	Yellow	White	Dark Blue	Blue
Green	Orange					
Blue						
Red						
Yellow	Orange					

(b) After moving the middle row to the left

Yellow	Dark Blue	Blue	Yellow	Red	Orange	Dark Blue
Green	Red	Yellow	Green	Blue	Yellow	Green
	Orange	Dark Blue	Red	Yellow	Dark Blue	Blue
Green	Orange					
Blue						
Red						
Yellow	Orange					

(c) After moving the third row (from the top) to the right.

Figure 3: Double move: moving the middle row to the left, then third row (from the top) to the right, resulting in two orange balls.

End game

The game ends when no valid (single or double) move can be made. The players get a point for every three balls of the same color they have. If a player has 14 balls ●●●●●●●●●●●●●●●●●●●●●●●●●, then they have 1 point from the blue balls and 1 point from the red balls resulting in *2 points*.

The winner is determined as follows:

1. The player with most points wins.
2. If they have the same number of points, the player with the most balls wins.
3. If they have the same number of points and the same number of balls, it is a draw.