Carom Mini Golf - rules

In the sport of miniature golf, there are courses of various configurations. At one end of the court, there is a hole, and at the other is the tee area, which marks the ball's starting position. The aim of the game is to get the ball into the hole with as few strokes as possible. Each player plays individually (independently of others) and records their score (number of strokes at each court). At the end of the game, the players add up their score on all the courts, and the player with the lowest score wins.

The board game Carom Mini Golf in its Basic mode simulates the real sport of mini golf. The word *carom* in the name refers to the second game mode, in which all players (2 to 6) simultaneously play their turns by moving their balls. In Carom mode, the main goal is to get your own ball into the hole with as few strokes as possible, but it is allowed to interfere with the opponents' plans at the same time.

Contents

The set contains: board, 6 round balls, 2 starting position markers, 6 dice, 14 flat obstacles, 4 vertical obstacles, 8 movement slowing obstacles (4 sand and 4 puddle), slider, scorepad and game rules (text booklet and diagrams booklet).

- The board shows 6 different **basic course holes**, numbered from 1 to 6 and bounded by a **low wall**. *(The seventh course hole is featured on the inner cardboard of the box and will be part of the set if the Kickstarter campaign stretch goal is reached, along with two corresponding vertical obstacles)*. Each course hole consists of a grid of hexes, and one hex contains the **hole** for the ball to be put into. At the opposite end, there is the tee area (shaded rectangle) covering **6 starting hexes**. Next to each course hole, there is an **indicator of the order of play**, and on the board also contains the **move counter** and a **ball direction indicator**.

- **The balls** come in 6 different colors.

- **A starting position marker** can be used (optional) to mark the starting position of the ball in each stroke, for easier calculation.

- **The 6 dice** are in different colors, and with different numbers. The board shows all the numbers on each die.

- **Flat obstacles**. There are 14 of them, in several shapes, and they can be placed in such a way that they only deflect the ball, or they partially allow the ball to pass through.

- **Vertical obstacles**. There are a total of 4, of different shapes.

- **Movement slowing obstacles** represent water and sand.

- **Scorepad**.

- **Slider** for the move counter, in the form of a plastic hexahedron of any color.

Basic mode

- The game can be played by one or more players.

- We recommend starting the first game on the basic course hole number 1, in order to get familiar with the rules. When all players put their ball into the hole, they move to the basic course hole number 2, and so on.

- By placing different obstacles on basic course holes, you get modified course holes. The pages 9, 10, 11, and 12 of the diagrams booklet show examples of modified terrains, and we encourage players to create new configurations according to their preferences.

- The game can be played on any number of holes, according to the players' agreement (i.e, 6 basic + 6 modified course holes, or 15 modified holes, etc.).

- One player plays several strokes consecutively, until they put the ball into the hole, after which they write down the score into the scorepad. There is a maximum of 10 strokes on each course hole, and if the ball hasn't reached the hole by that time, the play is stopped, and they get a score of 10.

- In order to keep track of the number of strokes, before the first stroke, the slider on the move counter is placed on the far left rectangle. At the beginning of the first move, the slider should be moved one rectangle to the right (to the rectangle number 1), and the process is repeated at the start of each subsequent move (see Diagram 1 in the diagrams booklet).

Game Setup

- Before the start of the game, each player chooses their colored ball.

- The order of play is shown next to each individual hole as a series of balls. In the example in Figure 2, the order is: orange, green, yellow, blue, purple, red. If less than 6 players participate in the game, unused colors are skipped.

- On each course hole, there are 6 starting hexes where players can place their ball before the first stroke. Each player can place the ball on any of those 6 squares, and multiple players can choose the same hex. On each subsequent hole, the players again choose the starting hex at will.

Ball movement

- *In the sport of miniature golf, the ball is hit with a putter, after which it moves in a straight line. The length of the ball's movement depends on the force of the stroke.*

- In this game, to propel the ball, players use one of 6 dice. In each move, the player chooses which die to roll. The number obtained on the dice is a measure of the strength of the stroke, that is, a measure of **impulse** given to the ball. So, when you get a certain number on the dice, it means that the ball has received that many impulses to move. After rolling the dice, the player chooses the movement direction.

- The geometry of the board is such that the ball can move in 6 directions, exclusively from one hex to one of the adjacent ones. The assumption is that the ball moves strictly through the middle of each hex along its path. The initial direction of the ball movement is chosen by the player himself. Each transition from one hex to another is called a **step**.

- In the diagrams, each step is represented by an arrow, and the impulses are represented by increasing numbers.

- Generally, the ball always moves in a straight line for the number of steps that is identical to the number of impulses obtained by rolling the dice.

- **Example of ball movement - Picture 3**: In this stroke, the starting position of the ball is marked with an A, and the final position with a B. The ball took 6 steps in a straight line, because of the number 6 on the dice (number of impulses = number of steps).

Putting the ball into the hole

The ball can enter the hole in two ways:

a) when the number of impulses is equal to the number of steps required for the ball moving towards the hole to fall into it (Diagram 4), or

b) when the number of impulses is one greater than the number of steps required for the ball moving towards the hole to fall into it (Diagram 6).

- The option a) is shown in Diagram 4. The ball reached the hole in exactly three steps and fell into it.

- Before the example for the option b), Diagram 5 shows what happens when the number of impulses is significantly greater than the number of steps between the ball and the hole. In this case, the ball continues its movement in a straight line, but when passing over the hole, it loses one impulse due to the contact with the opposite edge of the hole. In the example in Diagram 5, after several shots, the blue ball is at position A. For the next stroke, the player chooses a green die and gets an 8. The ball moves towards the hole, but as it got more impulses than needed, it goes over it and goes further to the position

marked with a C. When passing over the hole, it loses one impulse, because the ball touches the edge of the hole (marked with a B) which shortens the movement a little (see Diagram 5a).

From the Diagram 5, it can be seen that one impulse is lost when the ball passes over the hole. This means that it is possible for the ball to fall into the hole even when the number of impulses is one greater than the number of steps required for the ball to reach the hole - option b).

- **Example of a hole in two - Diagram 6**: In this example, the starting position of the ball before the first stroke is marked with an A. The player chose the orange die and got 12 – the ball gets 12 impulses. The ball moves 12 steps towards the hole in a straight line (position B), and from that position, it is 6 hexes away from the hole. In the second stroke, the player rolls the yellow die and gets a 7. The ball goes straight to the hole and falls into it (C), because the seventh impulse is spent by the ball hitting the opposite edge of the hole, after which it remains inside – variant b). So, the ball fell into the hole after two strokes, and the player's score is 2, which is written down in the scorepad.

Bouncing the ball off the walls

- Each course hole is bounded by a low wall, which is flat in some places and rounded in others.

- When the ball hits a flat part of the wall, it bounces as shown in diagrams 7, 8 and 9.

- The ball bounces off the rounded parts of the wall in the direction from which it came (see diagrams 10 to 13). In diagrams 12 and 13, white arrows show other directions from which the ball returns in the backwards direction. In Diagram 13, the ball returned to its starting position.

- When the ball ends its movement on the hex against the wall, the directions of its movement are limited in the next stroke, see diagrams 14, 15 and 16.

- When the ball moves along the wall, it moves in one of two ways, depending on the shape of that part of the wall in particular: in one case, it separates from the wall and continues straight (Diagram 17), and in the other case, it follows the shape of that part of the wall (diagrams 18 and 19).

- *On some hexes, there are arrows that show directions in which the ball bounces. The bouncing principles shown this way apply to all similar hexes.*

- **Example of a hole in four - Diagram 20**: A - initial position of the ball before the first strike. A player rolls 16 on the purple die, meaning they have 16 impulses for that stroke. After multiple bounces, the ball arrives at position B. For the second stroke, they get 3 on the orange die, so the ball moves 3 steps and arrives at position C. For the third stroke, they select the green die, and get a 10, which means that the ball gets 10 impulses and

after rolling along the wall, it comes to position D. This is a favorable position because the ball can go directly into the hole, with 3 or 4 impulses. For the fourth stroke, the player chooses to roll the white die and gets a 3, which means the ball gets into the hole. Since the ball fell into the hole in 4 strokes, the player writes down 4 as their score.

Flat obstacles

- All flat obstacles, except those that cover only one hex, can be placed in two ways: so that they are closed (Diagram 21) or channeled (Diagram 22).

- When flat obstacles are set as closed, the ball bounces off them in the same way as off walls. All bouncing directions are shown in Diagram 23.

- Diagram 24 shows the bouncing directions when closed flat obstacles are next to the wall, or when the obstacles are next to each other.

- A flat obstacle can be placed so that some of its parts pass over the wall. In this case, the ball does not bounce in the same way as it would if there was a rounding (see Diagram 18). Such examples are shown in diagrams 25, 26 and 27. In Diagram 25, the ball passes alongside the obstacle, but does not touch it, and hits the wall, so only the contact with the wall is taken into account. In Diagram 26, the ball only hits the obstacle. Finally, in Diagram 27, it is considered that the ball hits the wall and the obstacle at the same time, so it bounces back in the direction from which it came.

- When flat obstacles are set as channels, the ball can go over them, but only from a certain direction. From other directions, the ball bounces as if the obstacle were closed. In Diagram 28, yellow arrows show the directions from which the ball passes over one of the channeled obstacles.

- During the movement over channeled flat obstacles, the ball follows a defined path without the possibility of turning or bouncing, because there are walls that channel its movement.

- Diagram 29 shows how the ball passes over a flat channeled obstacle. In this example, the ball stopped within the obstacle at the end of one move, and continued from there in the following move.

- If the channeled obstacle is curved, the ball follows its shape during movement, as in Diagram 30.

- When the ball goes over the channeled obstacle that branches, the ball bounces back, as in Diagram 31.

- Example of a hole in 3 - Diagram 32.

Vertical obstacles

- Vertical obstacles are similar to channeled flat obstacles, because the ball can only go over them if it comes from a certain direction. In the example in Diagram 33 featuring one vertical obstacle, yellow arrows show the direction in question.

- If the ball reaches a vertical obstacle from another direction, it bounces the same as it would off flat obstacles. The general principles of bouncing off vertical obstacles are shown in diagrams 34–37.

- With some vertical obstacles, it is possible for the ball to pass under the obstacle. In diagrams 36 and 37, orange arrows show the directions from which the ball passes under the obstacle.

- When the ball reaches a high vertical obstacle from the direction shown by the yellow arrows in Diagram 33, the ball climbs up the obstacle. For every step the ball takes while climbing the obstacle (slope), it spends two impulses. While moving along the flat section of vertical obstacles, one impulse is spent per step, and when the ball descends, no impulses are spent.

- Diagrams 38 and 39 show examples in which the ball goes over the entire vertical obstacle in one stroke.

- If the ball does not have enough impulses to climb to the flat part of the vertical obstacle, but ends its movement on one of the slopes, the ball slides down to the first hex before the obstacle - see diagrams 40a and 40b.

- The ball may stop on a hex that is on the flat part of the vertical obstacle. Then the game continues as usual - the player rolls the dice as desired and moves the ball accordingly (Diagram 41).

- One of the vertical obstacles has a hole in the central hex. In order for the ball to continue its journey over the hole, it consumes one extra impulse, the same as in the case of the hole on the ground. If there are not enough impulses to continue the movement, the ball falls through the hole and remains on the ground that is exactly below the hole (Diagram 42).

Movement slowing obstacles – sand and puddles

- *In reality, weather conditions (wind, rain, snow, etc.) can often bring a small amount of water or sand to mini golf courses.* In this game, there are 4 markers made of yellow transparent plastic that represent deposits of sand (most often next to a wall or an obstacle), and 4 markers made of blue transparent plastic that represent puddles. These markers can be placed anywhere on the course, but we recommend placing them next to an obstacle or wall. The markers are irregular, rounded, but when placed correctly, they occupy 3, 4, or 5 hexes.

- Due to the increased resistance, when the ball moves over sand or water, it slows down. In this game, this means that extra impulses are spent as the ball crosses a hex with sand or a puddle.

- When the ball goes over sand, for each step started on the hex with sand, one additional impulse is spent. Diagram 43 shows the ball going over a sandy hex.

- If the ball does not have enough impulses to pass over all hexes with, it stops and continues movement in the next stroke. An example of that can be found in Diagram 44: during the first stroke, there were 8 impulses according to the die, but the ball traveled only 6 steps. The last, eighth impulse was not used at all, because one more was needed for the ball to move to the adjacent hex. In the next stroke, the player decided to change the direction of the ball compared to the previous stroke.

- Water creates greater resistance to movement than sand, so the rules for crossing the hexes with puddles are different. When the ball gets to the first hex with a blue marker, the ball stops, regardless of the number of impulses for that stroke. Diagram 45 shows an example.

- In the next move, the ball can move across the puddle, but it requires three impulses for each step through the water. Diagram 46 illustrates just that (it is a continuation of the Diagram 45, the next shot).

- **Example of a hole in five - Diagram 47.**

Additional course hole

- As an addition to this set, the inner cardboard in the box will feature the course hole number 7, if the corresponding stretch goal of the Kickstarter campaign is reached. It has three parts of different height levels (the middle part is lower than the side ones). The parts are connected with two special vertical obstacles that lowered or raise the ball from one level to another. Diagram 48 shows a hole in 6.

Carom mode

- In the Basic game mode, one player plays several strokes in a row, until they get the ball into the hole, and write down the score. After that, it’s the next player’s turn, and so on, until everyone has put in their ball into the hole.

- In Carom mode, in the first move, the first player strikes the ball, moves it accordingly, and stops. Their ball remains in that spot, while the second player plays their turn – they roll the die, move the ball from the starting hex, and then stop, in order for the next player to proceed. This carries on until the last player has moved their ball in the first move, and then the procedure is repeated in subsequent moves, until all players put their ball in the

hole, and everyone writes down their score. The main feature of the Carom mode is that it is allowed and desirable for the players to deliberately hit one of the opponent's balls with their ball, thus moving it away from the hole or putting it in a disadvantageous position.

- During a collision (carom), impulses are transferred from one ball to another according to special rules, and all the rules that govern movement and bouncing remain identical to the rules of the Basic mode.

- A maximum of 6 players can participate in the game. If there are fewer players (two or three), each player can control more balls.

- In Carom mode, it is extremely important to respect the order of play. The move counter slider may not be moved until all players have taken a stroke in that move.

- It is not recommended to use vertical obstacles when creating configurations for modified holes in Carom mode, because some additional rules that regulate the accumulation of balls directly in front of or behind vertical obstacles are necessary, which makes playing more complex. These rules can be found on our website (see the link or QR code on page 8 of the diagrams booklet).

Ball Collisions

- As previously stated, it is assumed that the ball always moves exactly through the middle of the hexes on its route. Also, when the ball is stationary, it is assumed that it is standing exactly in the middle of the hex, and also, that it is the same size as the hex, viewed from side to side - see Diagram 49.

- So, when two balls occupy adjacent hexes, it is considered that they are touching, that is, that there is no gap between them. If the assumption is that the balls are always in the middle of the hexes, it is logical that then the balls touch during collision, they touch in such a way that the point of contact and the centers of the balls are on a straight line that passes through the centers of the hexes they occupy, which means that the ball that was hit continues to move in the direction of the ball that hit it (it is not possible for one ball just to brush another ball and cause it to deviate from that straight line path).

- When the ball encounters another ball on its way, it stops on the field in front of it, and transfers all its remaining impulses to the ball it hits. The ball that suffered the collision continues to move in the same direction (see Diagram 50). In the picture, the red ball has 8 impulses, but after 5 steps, it runs into the yellow ball. It stops there and transfers its remaining impulses (3) to the yellow ball, which continues to move for another 3 steps. Both balls took a total of 8 steps.

- If there is a series of balls formed (two or more balls on adjacent hexes in the same direction), and another ball moving in the same direction hits the first ball in the row, the impulse is transmitted all the way to the last ball in the row, the one that can move in the same direction (see Diagram 51).

- Diagram 52 shows the movement of the ball that collides with a ball that is on a hex adjacent to the wall.

- Diagram 53 shows the red ball hitting the green one. During the collision, it transfers the remaining impulses to the green ball, but as the position of the green ball is such that it would continue its movement in the direction of the red ball, now the green ball transfers impulses to the red one, which continues the movement (but this time in the opposite direction compared to the movement before the collision).

- Diagram 54 shows an example of a sequence of caroms. The red ball hits the purple ball, which continues to move and hits the yellow ball, transferring the remaining impulses. The yellow ball now moves and runs into the red ball, hits it, so now the red ball moves again (for the second time in one stroke) until it uses up the remaining impulses.

- A ball can get into the hole after being hit by another ball. Regardless of the fact that the player whose ball went into the hole was not the last to play, they are the one who score the points. For example, in Diagram 55, the blue player plays their third stroke, and on its way, their ball hits the yellow ball, which continues the movement and falls into the hole. Then the yellow player writes down the score of 3, as their ball went into the hole in the third strike.

- It is possible that two balls get into the hole in the same stroke. Diagram 56 shows the yellow ball passing over the hole, hitting the red ball on the adjacent hex, and falling into the hole due to that collision. In that collision, it also transmits impulses to the red ball, which continues to move and after bouncing off the wall, falls into the hole itself.

- In Carom mode, the winner is the player with the lowest score at the end. The following diagrams illustrate some general examples.

- Diagram 57 shows the complete first move on a modified terrain (basic terrain 1 with two flat obstacles). There are four players participating. Red plays first and gets 15 on the orange die. Purple then rolls the purple die and gets 25. Blue's next: they roll the yellow die and get 8. Yellow is the last to play – they get 16 on the purple die, and after 14 steps their ball runs into the blue ball, hits it, and transfers the last two impulses to it. This way, the yellow pushed the blue ball to a very unfavorable position.

- Diagram 58 shows the entire first move on the modified terrain number 3 (one flat and several movement slowing obstacles). The first three players have already rolled the die and moved their balls, with the blue ball reaching the yellow ball but not hitting it. It's Red's turn now – they roll the purple die, get 36, but plays so awkwardly that their ball hits the blue one after 32 steps. The blue ball cannot move, so the impulses transmitted to it by the red ball (4) are transmitted to the yellow ball, which in the last, fourth step of its movement, falls exactly into the hole. The yellow player writes down a hole in one

- Diagrams S-1 to S-3 show different course hole configurations with flat and movement slowing obstacles.

- Diagrams S-4 and S-5 show different course hole configurations with all kinds of obstacles.

- Another feature of this game is the possibility to connect all the course holes with the help of vertical and channeled flat obstacles. For example, course holes 2 and 3 can be joined, so that the starting hexes are on hole 2 and the hole is on course hole 3. Diagrams S-6 and S-7 show some examples.

- It is possible to combine all the terrains into one unit in different ways. In Diagram S-8, for example, the starting hexes are on the court hole 1 and the hole is on the court hole 3.

- It is obvious that a much higher number of strokes is needed to put the ball in the hole when the courts are connected. Therefore, players can agree to play, for example, 20 or 30 strokes. In order to count strokes from 11 to 20, the slider on the move counter is set as shown in Diagram 59, and for counting strokes from 21 to 30, the slider is set to the position shown in Diagram 60.

- Players can also create configurations according to their own ideas, and when doing so, the players should use the diagrams created by the authors (S-1 to S-8) as a model.

- Additional examples, modified courses and rules in other languages can be found on the Forsage Games website.