How to Build and Play Micro Golf

The Party Style Golf Tabletop Game

*Overall board pic / artsy pic here*

# Introduction

Micro Golf is a game designed for players of all ages and skill levels, and like mini-golf, it is not based solely on skill but partially on luck. Micro Golf is designed with all players in mind, from young to old. This tiny spin on mini golf employs a new strategic, competitive advantage by allowing players to change the course as they go. The game is quick to learn, and gets people moving around the table in no-time.

The reason we all love to play mini-golf is because no two holes are the same; there is always some type of unique obstacle. Determining the best shot to take on a dynamic course allows for this same feature to be part of this game- all within the confines of a table. This means micro golf can deliver a mini‑golf-based experience to play in your apartment. It can certainly work as a testing practice green for solo play but is recommended to play with at least 2 Players for competitive fun. The following guide provides information on how to build and play the game.

# Building Micro Golf

The following build guide is designed to be as simple as possible and allow for a quick build of the game. Micro Golf is physically a very simple game and can be created with either a 3D printer or a Laser Cutter. The 3D printer is great as it allows for clubs to be printed, however the frame and center piece are designed to be either laser cut or printed.

*Close up pic of assembled golf clubs*

## Required Materials:

* 3D Printer or Laser Cutter (Both makes for the easiest assembly and quickest gameplay)
* ¼” Wood or acrylic (if using a laser cutter, filament if using a printer)
* Downloaded DXF Files and/or STL Files (for the game pieces)
* Glue – any type for your selected build material
* Pencils – These will be handles for the golf clubs (or appropriately sized dowels). The clubs are designed for hexagonal pencils, but you can use any appropriately sized type. This is done for simplicity and strength.
* 1in Grid Game Mat at least 30in x 30in, or 1in grid paper
* 4 Colors of Markers

## 3D Printing (Skip to laser cutting if you are going that route):

1. Download the STL files and print the following quantities of game pieces:
   1. 4 x Triangle 1
   2. 4 x Triangle 2
   3. 4 x Circle
   4. 4 x Corner
   5. 4 x Ramp
   6. 1 x Center
   7. At least 12 x Side (More sides allows for large play area ex: 12 allows for 30in x 30in
2. Proceed to Club Building

## Laser cutting (Skip if 3D printing the game pieces):

1. Download the DXF files and cut the following quantities of parts out of 1/4” material. Tolerances of .25mm on each side of joints have been designed in.

*Let us know if you need different tolerances.*

* 1. 4 x Triangle 1
  2. 4 x Triangle 2
  3. 4 x Circle
  4. 4 x Corner
  5. 16 x Ramp\_Middle
  6. 8 x Ramp\_Wall
  7. 1 x Center
  8. At least 12 x Side (More sides allows for large play area ex: 12 allows for 30in x 30in

Alternatively:

Print the following laser cut settings on 12x12x.25” wood.

* 1. Danny- add these files

1. Assemble the Hole

*Assembly diagram*

## Club Building

1. Download your choice of club files and print the head if you can on your 3D printer, we recommend printing 4 heads, preferably in different styles so you can have your own special club. We encourage you to design your own club, because you are only as cool as your club.
2. One the club has printed attempt to put the pencil in the handle hole as shown. [Image here]
3. If you wish, glue the handle into the club head. Hot glue, epoxy, and superglue should all work well. If you are having issues getting the pencil to fit you can either drill out the hole, or adjust the scale when printing. I printed the clubs in 100% infill to give them the nice golf club weight they deserve.
4. Once you have 4 clubs you are ready to play the game of Micro Golf!

# Gameplay

Congrats! You are now worthy and able to play the game of Micro-Golf!

## Game Setup

1. Build the boundary for the game with the corner and side pieces. The game is expandable and can be modified in size to your desire. We recommend a minimum area of at least 30in x 30in (3 side pieces per side). [image of board]
2. Place the hole in the center of the board as shown [image]
3. Divide the pieces up equally among the corners. These pieces are what make this game interesting.
4. An inch grid mat (ie. battle mat) is highly recommended for accurate piece placement. Draw erase marker compatible mats are useful as well to better mark player zones. If no mat is used, the boundary has inch marks for reference.

## Choosing Game Mode

1. The First Choice you have is to choose a game mode. These each have difficulties of easy, medium, and hard. Beginners should start on easy, however seasoned golfers will love the thrill of the hard version.
   1. Basic Mode: This is the simplest way to play the game and recommended for all first time players
   2. Evil Genius: If you get frustrated when games get difficult, I’d skip this mode.
   3. Party Mode: Perfect for large parties, builds upon Basic Mode to allow for tournament style play

## Basic Mode

2 – 4 players gather (you’ll be moving around a bit) at the table (or around the board if it is on the floor)

**Setting up the game**

1. Set up the table as shown. The game mat or paper should be placed down first and then the outer perimeter. You can choose to use sticky-tack for the perimeter if you wish, though we found it is very helpful with the shapes.
2. Place the circle pieces in the correct position as shown below, and the hole in the center of the board. The circle pieces are static throughout the game.
   1. The hole has 6 modes: Easy – with guardrails, hard – half guardrails (only one layer), Impossible – no guardrails, and easy+, hard+, and impossible+ are all the same with the smaller hole for added challenge. We recommend playing on easy.
   2. Each player should have their respective colored triangles: 3 isosceles and 2 scalene. These must be placed symmetrically in your starting area based on a diagonal symmetry line between your tee to the hole. Some examples of this are depicted below.

NOTE: You cannot place the triangles in the blocked off area.

**Taking Turns**

1. Determine a rule to decide who goes first. Examples include: Height, Age, Number of times you went to the bathroom today, etc.
2. At the beginning of your turn you have the ability to move/rotate up to two pieces and take a stroke. You can move or rotate two separate pieces or move and rotate one piece (2 actions total). The buy values for each of the moves is as follows:
   1. 1 Point – Rotate your own piece
   2. 2 Points – Move your own piece
   3. 2 Points – Rotate somebody else’s piece
   4. 3 Points – Move somebody else’s piece
3. After electing to move or not move any pieces then you take a stroke. On your first turn you will shoot from the tee (the small hole set on your corner).
4. Be sure to keep track of build points and strokes for the final score of each round

**Movement Rules**

* Only triangle pieces can be moved, and you cannot move an opponent’s pieces if they are still in their own zone
* All triangles’ 90 degree angle should line up with intersecting inch markings (perpendicular sides line up with grid lines) at all times.
* A movement action allows for one piece to be moved anywhere outside of opponents’ zones, while retaining the piece’s orientation.
* A rotation action allows for one piece to change its orientation according to the following:
  + Right (smaller) triangles- piece must stay within its starting 2”x2” grid
  + Scalene (larger) triangles – piece must be pivoted around its 90 degree angle
* If a piece is only half-way covering the ramp to the hole, it must still be passable by a ball (the marble).

**Gameplay Scenarios**

* You CAN block other players, in fact it is encouraged and leads to more fun during the game
* If the ball ends in a start zone (the triangles at the corners) you must restart at your own T
* If a player knocks the table they will be charged 1/3 ‘of a stroke
* Bocce style hitting of other players balls is legal.
* The max stroke/build count per round is 30. If two players tie, the winner is the player with the least overall number of over-30-stroke rounds, indicated by a dot for each one over their cumulative score.
* You reset your triangle positions at the end of each round.

**End Game**

The game ends after the round at which 100 points is scored. Build points and stroke points are added together to get this score. The person with the lowest point total is victorious.

## Evil Genius

5 Players

Do you have what it takes to be the best evil genius? Your goal in the game is to stop all players from scoring. The average number of points is your score in this scenario. You are allowed to move pieces, and the players are encouraged to help each other. You do not have to buy pieces but can take a maximum of 4 actions. The difference however is that you get to move twice as many pieces as a normal player. The players can all make movements before taking strokes if they wish (by deferring stroke to after other players movements). This creates a team environment and plays similar to games with a game mater (ie. DM). The Evil genius switches after 2 rounds, with each player having a change to be the genius. The goal is to have the lowest average score as genius. This mode will likely cause a great deal of fights and test friendships. Maximums of 30 are still in play.

## Party Mode

4+ players gather around the board

Gameplay is the same as basic however the player(s) that scores the highest in the round is kicked. The number of players kicked is as follows:

* 5 players - 1
* 6 players – 2
* 7 or more players – 3

The players that were kicked least recently are the first to return to play. There are two ways to score this mode, and it depends on how you want the game to play.

**Mode 1:** Score based – very similar to standard scoring, however the game ends when one person gets kicked out 5 times. Your final score is your total score/the number of rounds played. This scoring favors the most dexterous player.

**Mode 2:** Survival based – You play until somebody has been kicked out 5 times. The person that has been kicked out the fewest number of times wins. If there is a tie, the lowest score wins. This tends to lend itself better to the more strategic players – the blockage of other players as opposed to just going straight for the hole can be beneficial here.