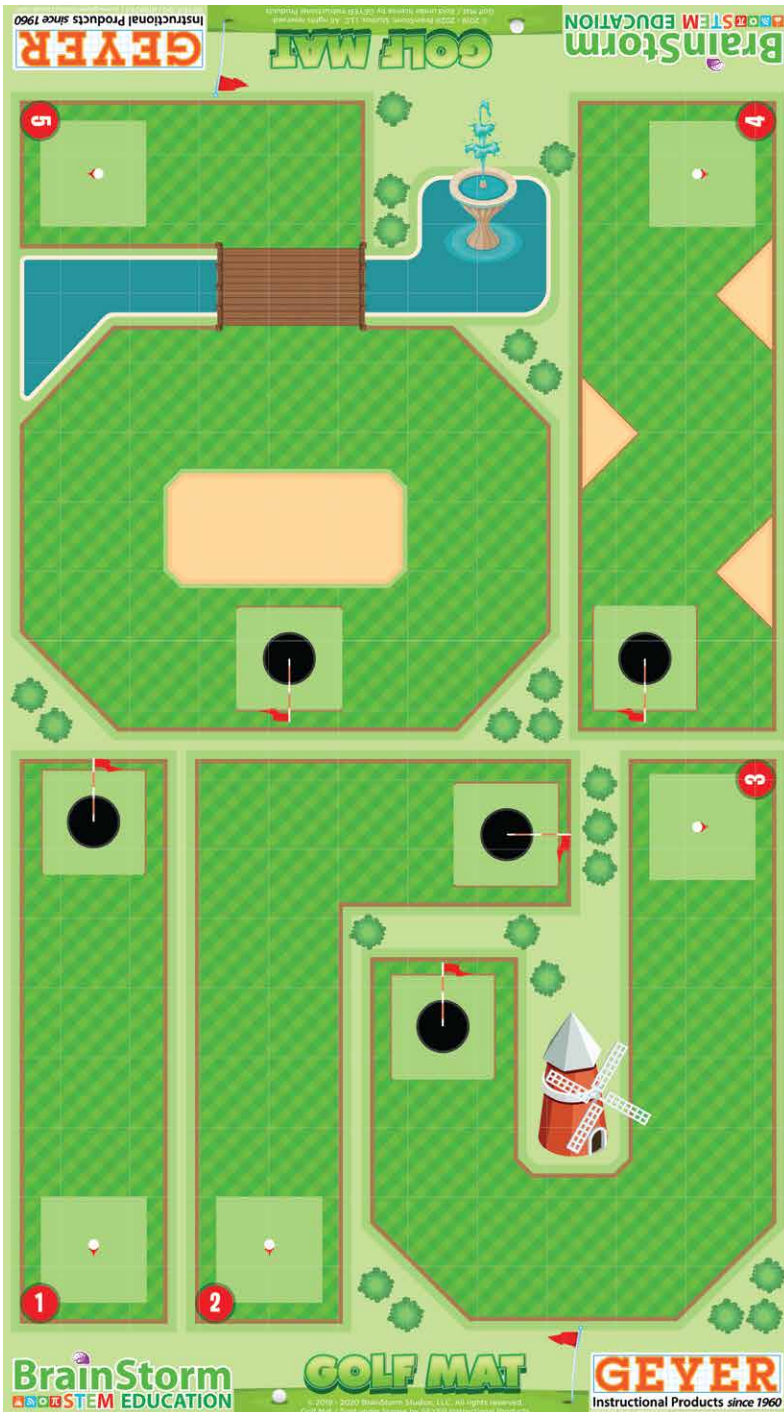


### ROBOTIC ACTIVITY MAT

# GOLF



**Summary:** Let's Par-Tee! This golf-themed mat combines robotics and golf to create lots of learning and fun. Can you program the robot to score a hole in one?

**Features:**

- Fits up to 10 students
- Competitive game-play
- Increasingly difficult challenges.

**Objective:** Build and program the most efficient and optimal robot to navigate each increasingly difficult course and score the golf puck into the hole in the least amount of code-able commands.

**Skills taught:** Students will learn programming, sequential navigation, problem solving, team-work, engineering, and critical thinking.

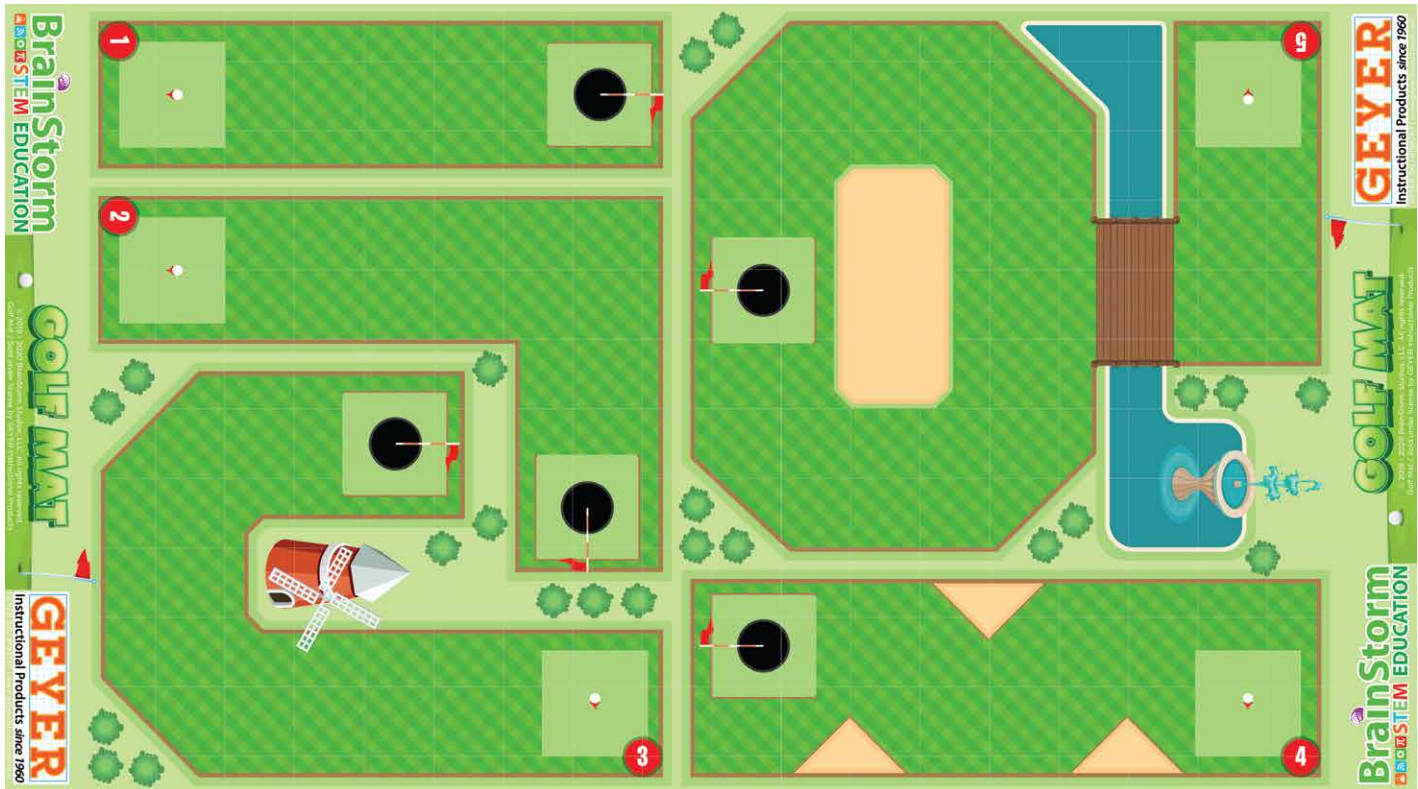
**Game Pieces(8 Total):**



### Activity: Sequential Navigation

#### Courses 1 - 5

Using code, program your robot to navigate each increasingly difficult course and score the golf puck into the hole in the least amount of code-able commands. Students can work in groups, each group receives 1 golf puck.



#### How to Use:

1. Robots will start in the light-green square located near the course number.
2. Analyze the course and visualize the direction(s) needed for the robot to navigate through to the hole (Tip: program your code two sequential commands at a time).
3. Code the sequential navigation commands into the robots program.
4. Place the robot in the light-green starting square, place a golf puck in the robot's possession, and execute the program.
5. Repeat steps 2-4 until the robot has placed the golf puck on-top of the course hole.
6. Complete steps 1-5 for each course.

**Rules:** Robots should be mindful of the course boundary lines and obstacles(Brown lines).

**Scoring:** Score can be kept by adding the total number of sequential commands that were used to achieve a successful completion of each individual course, with a total game score being the sum of each courses(1-5) sequential command count.