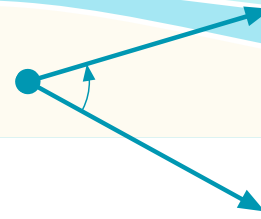




# Hit The Piñata!

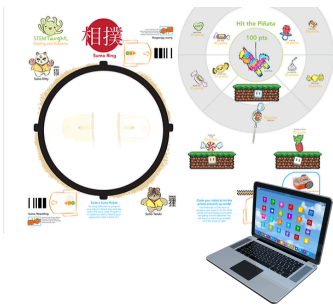


## STEM

(40 min)

### Materials:

- Computing device
- Remote control (K-2nd graders)
- Measuring Tape/ruler
- Protractor
- Candy or prizes (optional)
- Robots



## NEW WORD: CODING

The instructions we create to communicate with computers. Through coding we're able to make computers perform tasks.

## SETUP:

You can choose to discuss the activity first and then have the students help set up, or you can have things set up and have the students sit in a separate area to listen to instructions before starting the activity.

1. Set out 8-10 Robot mats in an open area. We suggest a multipurpose room, but a classroom works great too. There can be 2-3 students per mat.
2. Set out 2 protractors and 2 rulers on each mat. It's time for some math fun!

## ROBOTICS DISCUSSION AND BUILD

### Instructions to share before you pass out the robots:

1. Get the students excited for today's challenge! You could say: "Today you get to use your math skills to hit a piñata, and collect all the candy with your robot! You will be measuring distances and angles from the start to the piñata, and then coding your robot to turn a certain number of degrees to go and collect all the candy."

## PIÑATA CHALLENGES:

1. Hit the piñata for 100 points! The first 5 to get in the circle with the piñata without touching any of the green lines around it get 2 candies or prizes. After the first 5 have finished the first challenge let the other students know to still work on it for 1 candy or one prize.
2. Hit two candies that equal 70 points in one run, which means no stopping until the end. One candy or prize when the students finish this challenge.
3. Collect all the candies that don't have wrappers. One candy or prize for this challenge.
4. Set the mats equally across from each other. In this challenge the goal is to go from the end of the start mat over to the 100 point piñata on the other mat. This challenge gets 2 candies or prizes!

# Challenge #4!



## KINDER-2ND GRADE

### Instructions: .

1. First, get the students excited for today's challenge! You could say, "Who's ready for some fun challenges, and to win some prizes!"
2. The students will bring their robot down to one of the mats. We suggest 2-3 students per mat.
3. They will bar code scan on the reverse side of the mat where it says clap cars. Follow the instructions on how to bar code scan.
4. The robots are now ready for the challenges!

### HOLLIE'S HELPFUL HINTS!

1. Clap once, and the robot will turn. Clap twice, and the robot will move forward.
2. They can even use their hand and hit the ground, or use their foot to stomp. The robot will listen to their demand.
3. Feel free to come up with your own challenges as well!

## 3RD-4TH GRADE

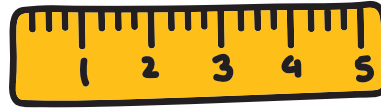
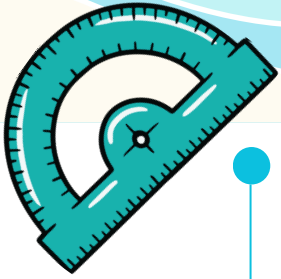
### Instructions: .

1. First, get the students excited for today's challenge! You could say, "Who's ready for some fun robotic challenges and to win some prizes!"
2. The students will bring their robot and their lap top down to one of the mats. We suggest 2-3 students per mat.
3. The students will open their laptops and go to EdBlocks at: <https://www.edblocksapp.com/>
4. Now, they will follow the instructions on how to use EdBlocks.
5. In EdBlocks, the students will use the Drive tab in the upper left hand corner. They will use ONLY the forwards, backwards, right, and left blocks for these challenges.
6. Let the challenges begin!

### HOLLIE'S HELPFUL HINTS!

1. Feel free to come up with your own challenges as well!





## 5TH - 8TH GRADE

### Instructions: .

1. First, get the students excited for today's challenge! You could say, "Who's ready for some fun robotic challenges, and to win some prizes!"
2. The students will bring their robot and their chrome book or lap top down to one of the mats. We suggest 2-3 students per mat.
3. The students will open their laptops and go to EdScratch at: <https://www.edscratchapp.com/>.
5. Now they will follow the instructions on how to use EdScratch.
6. In EdScratch they will only use the Drive tab in the upper left hand corner. They can use all the blocks in this tab for all the challenges.
7. Let the challenges begin!

### HOLLIE'S HELPFUL HINTS!

1. Students might need help measuring the number of degrees to program their robot to turn with their protractor. Help them put the protractor on the mat horizontally with the robot to measure the angle their robot should turn.
2. Sometimes students need a reminder on in and cm. They can use either to program their robot but they need to stay consistent with the one they choose. They can alter their code block to be either one.

