



# **BEEBOT MONEY MAZE**

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# THE STEAM DESIGN PROCESS

## ASK

Define issue  
And constraints

## IMAGINE

Brainstorm and  
choose a solution

## PLAN

Draw it and  
make a  
materials list

## CREATE

Make it and try  
it out

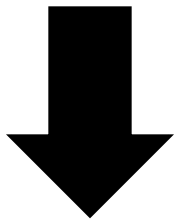
## IMPROVE

Reflect and  
make it better

# WHAT IS A MAZE?

## WHAT DOES A MAZE CONSIST OF?

- A START
- AN END
- TRICKS
- ONE CORRECT (HIDDEN) PATH



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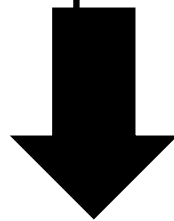
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# STEAM CHALLENGE

**Challenge: In groups, design and create a paper maze that you will program a beebot to move across.**

Each square must increase by a certain amount of money.

You will need to figure out how to program your beebot from the start to end and increase the same amount of money being added each time. At the end, we will be trying to complete other groups' mazes!



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# GROUPS FOR STEAM ACTIVITY:

- RED: Warrick, Christine and Razan (increase by \$1.10)
- ORANGE: Mia, Derrell and Anna (increase by \$1.50)
- YELLOW: Tasharna, Charlotte and (increase by \$2.50)
- GREEN: Nero, Brandon and Cooper (increase by \$4.10)
- BLUE: Jack, Lina and Connor (increase by \$4.05)
- PURPLE: Ravleen, Farhan and Santino (increase by \$5.25)
- PINK: Jessica, Ling Liu and Kismat (increase by \$7.25)
- SILVER: Khodi, Riley and Will (increase by \$6.25)

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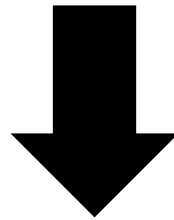
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# GROUPS FOR STEAM ACTIVITY:

- In your groups, design a plan to show where the beebot will need to go and the money values.



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FINISH

$$3\frac{1}{4}$$

$$3$$

$$2\frac{3}{4}$$

$$1\frac{3}{4}$$



$$2$$

$$2\frac{1}{4}$$

$$2\frac{2}{4}$$

$$1\frac{2}{4}$$

$$\frac{3}{4}$$

$$\frac{2}{4}$$



$$1\frac{1}{4}$$

$$1$$

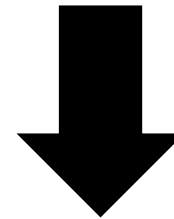
$$\frac{1}{4}$$





# TEST YOUR DESIGN!

- In your groups, create an instruction and answer sheet that sums up the answers using arrows and total money amounts
- You may like to use the beebot costume and instruct your players to collect the money and glue to the beebot as they go...THE RULES ARE UP TO YOU 😊
- Check your values add up correctly
- Use the beebot to trial your maze



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# TEST YOUR DESIGN!

- Trial other people's mazes and as a group write down two parts of the design you think worked really well and two ideas to improve the design
- Use fake money to add the values!
- Share feedback

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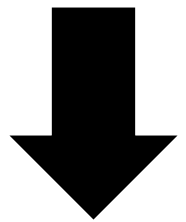
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=Groups to switch and provide feedback

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