

At Home Engineering

The aMAZEing Hexed Bug

Create a maze which your hex bug can navigate through. Your maze **MUST** have an entrance and an exit. Include as many of the obstacles from the chart as you can – your goal is to get as many points as possible! Be sure to work through each step of the **ENGINEERING DESIGN PROCESS**. You can find these below. Good luck!

OBSTACLE	POINTS
An entrance and exit	Required
Right angle	1 point
Tunnel	1 point
Loop	2 points
Obstacle to go over	2 points
Obstacle to go around	2 points
Sound change	3 points
Moving obstacle	3 points

ASK

What information do you need in order to solve the problem? What questions do you have so that you can be successful?

IMAGINE

What ideas do you have for creating a maze for your hex bug? What is your best idea?

PLAN

Sketch out and label your plan on paper.

CREATE & TEST

Create a maze and test your design. Be sure to keep track of your points as you test!

OBSTACLE	POINTS	MY TOTAL
An entrance and exit	Required	
Right angle	1 point	
Tunnel	1 point	
Loop	2 points	
Obstacle to go over	2 points	
Obstacle to go around	2 points	
Sound change	3 points	
Moving obstacle	3 points	

IMPROVE & RETEST

Take a moment to pause. What is going right? What is going wrong?