



The Maze Game

Mini Project 1: Detect Which Keys are Pressed

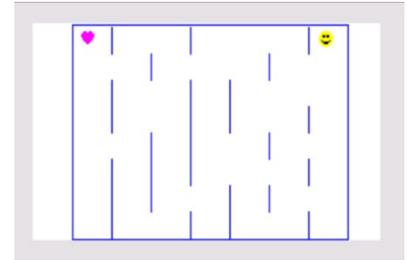
In this first mini-project, you will learn how to use the **getKey** function to return the value of a pressed key. You will use the displayed values to determine the numeric value of all the keys on the keyboard. In order to create your maze game, you'll need to know the numeric value for all four arrow keys.

Objectives:

- Use getKey to return key press values
- Learn the number value of each key
- Learn how to insert lines of code

The MAZE Project Overview:

After completing a series of 7 mini-projects, you will have a maze game similar to the one on the right. Projects 1 and 2 will provide skills needed to code movement in the maze game. Projects 3-6 will create code you'll import using the recall method and use in your final project.



Mini-project Order:

1. Detect which keys are pressed

2. Use key presses to move a word stored in a string value
3. Draw objects using pixels
4. Move objects using keypresses and variables
5. Create a specific Maze
6. Randomize maze attributes
7. Create the final maze project.

1. The getKey command returns the value of the key that is pressed. To find the getKey command, press  then select the I/O menu for input/output.

The line: `getKey→K`

Stores the value of the key into a variable named K.

Write the following lines of code:

```
:ClrHome
:getKey→K
:Disp K
```

If you execute the program now, it will execute and display a 0 automatically. The program doesn't wait for you to press a key. If it doesn't detect a button push it displays 0.

```
PROGRAM:KEYPRESS
:ClrHome
:getKey→K
:Disp K
```



10 MOC: Beyond Basics

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- Insert the two lines between ClrHome and the getKey line.

(  will give you an option to insert a blank line)

```
:0 → K
:While K ≠45
```

At the end of your code add

```
:End
```

The while loop will continue to execute the code to get and display the values of keys pressed until the clear key is pressed.

Run your program.

What type of values are displayed when you press a key?

What type of values are displayed when you don't press a key?

- Insert the following If statement before the display line.

```
:If K ≠ 0
:Then
:Disp K
:End
```

Before running your modified program, predict how the new lines of code will change the program.

- Use your program to explore the keypad.

What are the values of the arrow keys?

What is the value of the enter key?

What value is the clear key?

Use the blank template on the right to write down the numeric value of each key. Do you notice the pattern?

THE MAZE GAME: MINI-PROJECT 1

STUDENT ACTIVITY

```
PROGRAM:KEYPRESS
:ClrHome
:0→K
:While K≠45
:getKey→K
:Disp K
:End
```

```
PROGRAM:KEYPRESS
:ClrHome
:0→K
:While K≠45
:getKey→K
:If K≠0
:Then
:Disp K
:End
:End
```

