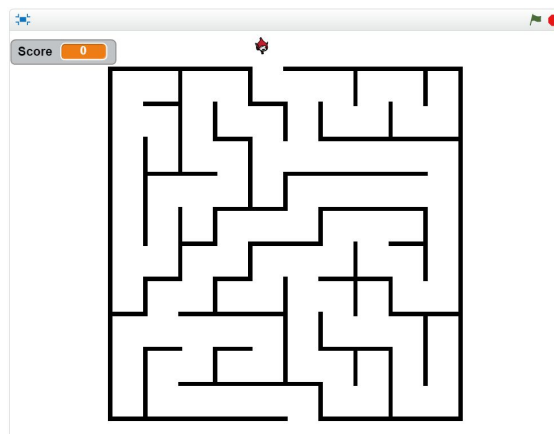


# Maze Game

## Academy of Code



## Contents

<b>1 Maze Game</b>	<b>1</b>
1.1 Maze Movement	1
1.2 Creating the Maze Barrier	2
1.3 Adding Sound & Scoring	3
<b>2 Scratch Examples</b>	<b>4</b>

# 1 Maze Game

To start off with you need to remix the Maze Game Starter Pack.

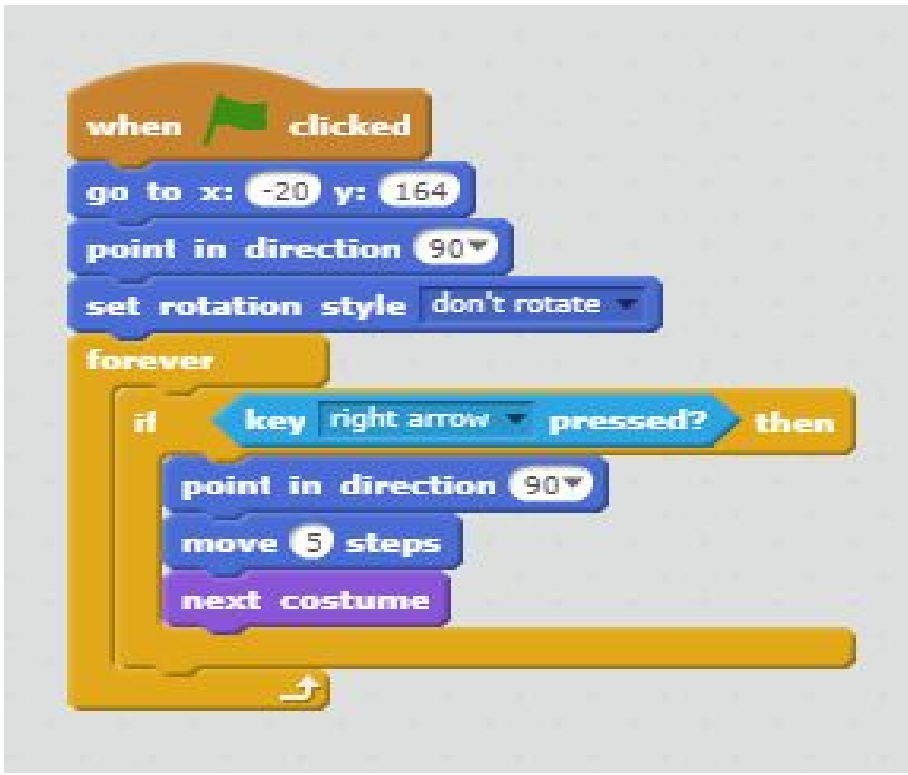
Follow the following link to the Maze Game Starter Pack:

[Maze Game Starter Pack](#)

Select the “See Inside” Button then the “Remix” Button.

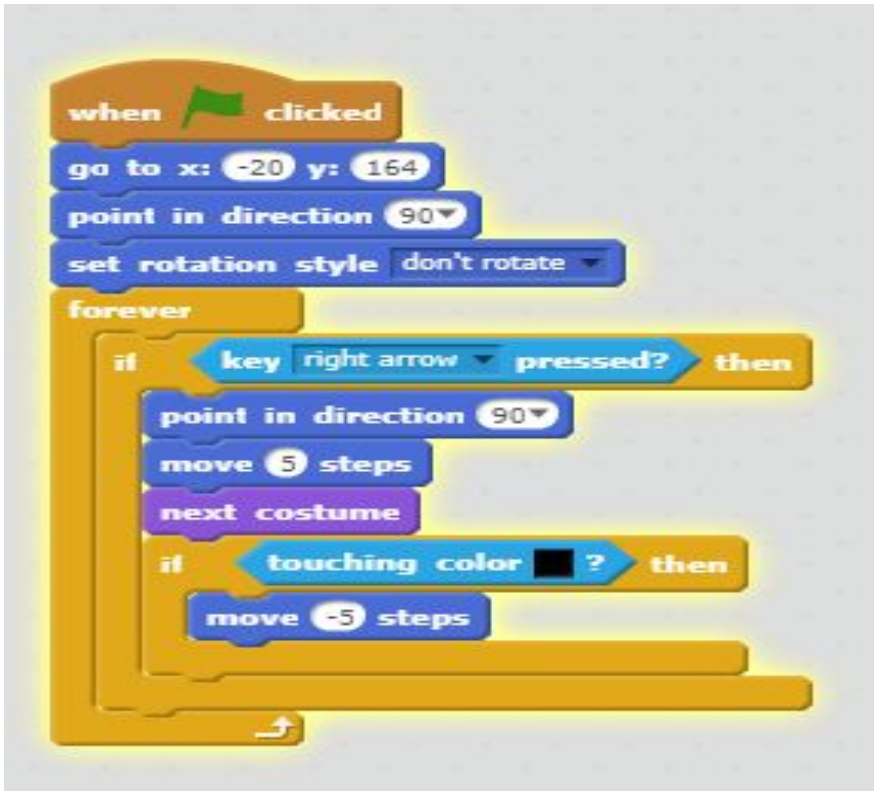
## 1.1 Maze Movement

Create the following code on the Giga Sprite.

Steps	Code
<p>When Green Flag is clicked need to position Giga in the same place.</p> <p>Then point in direction right (90 )</p> <p>Then set rotation style to “Don't Rotate”.</p> <p>Example shown is for the right arrow key.</p> <p>Now repeat this code for “Left Arrow”, “Up Arrow”, “Down Arrow”</p> <p>Make sure you set “Point in direction” correctly each time.</p>	 <p>The code is written in Scratch and is as follows:</p> <ul style="list-style-type: none"><li>when green flag clicked</li><li>go to x: -20 y: 164</li><li>point in direction 90</li><li>set rotation style to don't rotate</li><li>forever loop<ul style="list-style-type: none"><li>if key right arrow pressed? then<ul style="list-style-type: none"><li>point in direction 90</li><li>move 5 steps</li><li>next costume</li></ul></li></ul></li></ul>

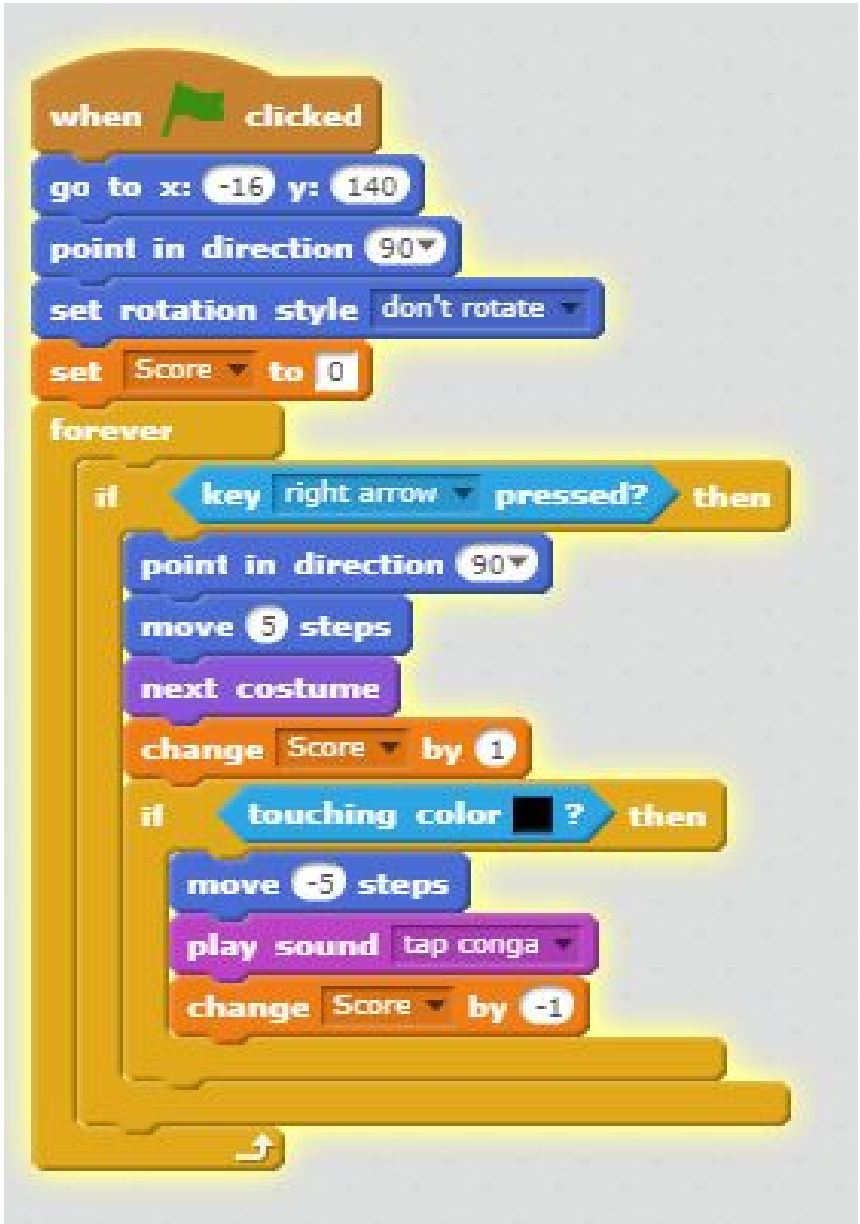
## 1.2 Creating the Maze Barrier

Create the following code on the Giga Sprite.

Steps	Code
<p>Compare this block of code to the previous and note that we have added in a new block of code.</p> <p>This block tests to see if our Giga sprite is touching any black lines, using the touching colour sensor and if this test is true, then we take back the previous steps.</p> <p>This will stop Giga from crossing the black line.</p> <p>Example shown is for the right arrow key.</p> <p>Now repeat this code for “Left Arrow”, “Up Arrow”, “Down Arrow”</p>	 <pre>when clicked   go to x: -20 y: 164   point in direction 90   set rotation style don't rotate   forever     if key right arrow pressed? then       point in direction 90       move 5 steps       next costume       if touching color black? then         move -5 steps</pre> <p>The image shows a Scratch script for a Giga Sprite. It starts with a 'when clicked' event block, followed by 'go to x: -20 y: 164', 'point in direction 90', and 'set rotation style don't rotate'. A 'forever' loop contains an 'if key right arrow pressed?' block. Inside this 'if' block, there are four steps: 'point in direction 90', 'move 5 steps', 'next costume', and another 'if touching color black?' block. The 'touching color black?' block has a 'move -5 steps' block attached to its 'then' branch. The 'forever' loop is indicated by a curved arrow at the bottom.</p>

### 1.3 Adding Sound & Scoring

Create the following code on the Giga Sprite.

Steps	Code
<p>Compare this block of code to the previous and note that we have added in a new block of code.</p> <p>We have added in a variable called Score and change this variable by “1” when Giga is not touching the black lines of the maze.</p> <p>We change the Score by “-1” when Giga is touching the black lines of the maze.</p> <p>We also add in a “tap conga” sound to alert the player that Giga is touching a maze wall!</p> <p>Now repeat this code for “Left Arrow”, “Up Arrow”, “Down Arrow”</p>	 <pre>when green flag clicked   go to x: -16 y: 140   point in direction 90   set rotation style to don't rotate   set Score to 0   forever loop     if key right arrow pressed? then       point in direction 90       move 5 steps       next costume       change Score by 1     if touching color black? then       move -5 steps       play sound tap conga       change Score by -1</pre> <p>The image shows a Scratch code editor for a Giga Sprite. The code starts with a 'when green flag clicked' event block, followed by 'go to x: -16 y: 140', 'point in direction 90', and 'set rotation style to don't rotate'. A 'set Score to 0' block initializes a variable. A 'forever' loop contains two 'if' blocks. The first 'if' block checks for the 'right arrow' key being pressed; if true, it points in direction 90, moves 5 steps, changes the next costume, and increases the Score by 1. The second 'if' block checks if the sprite is touching a black color; if true, it moves -5 steps, plays a 'tap conga' sound, and decreases the Score by 1.</p>

## 2 Scratch Examples

[Maze Game Starter Pack](#)

[Maze Game: Step 1 - Movement](#)

[Maze Game: Step 2 - Creating the Maze Barrier](#)

[Maze Game: Step 3 - Add sound and scoring](#)