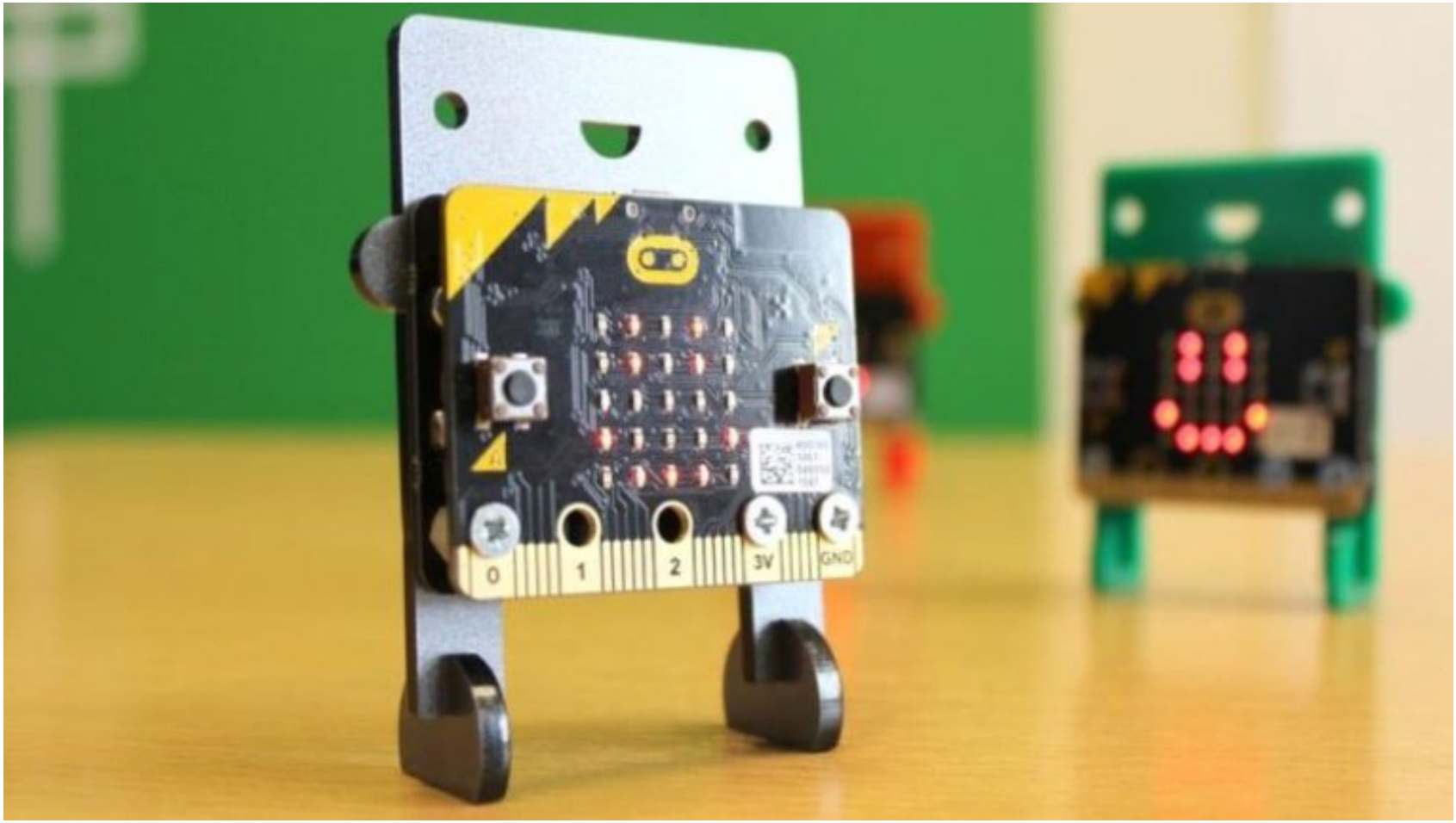


Introduction to Programming and Computer Science/Electronics

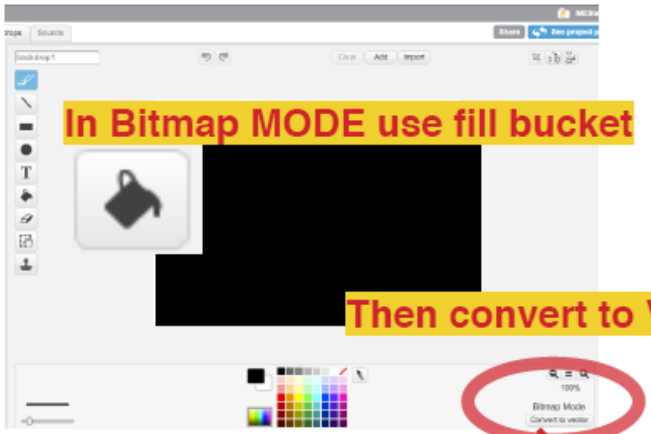
Lesson 52

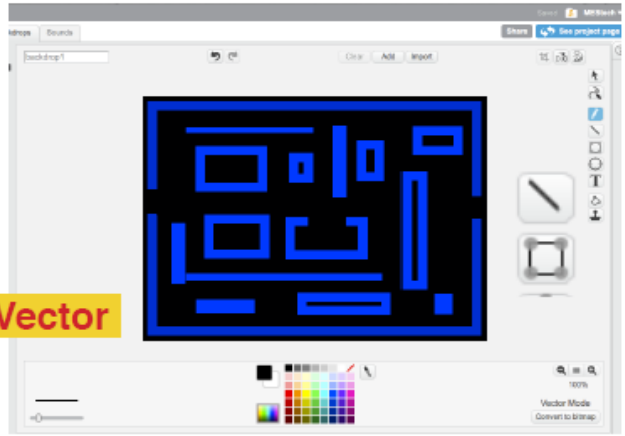
PACMAN - Backdrop

PACMAN

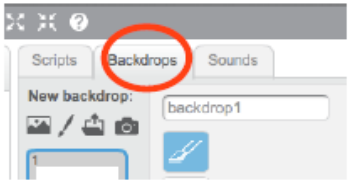
1. Start with your Backdrop

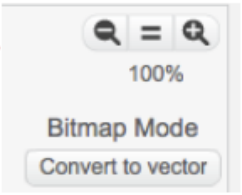
Paint your maze. Include 2 opening on the side of the maze for PACMAN to teleport through and box in the middle with an opening for the aliens/ghosts.





Select BACKGROUND TAB



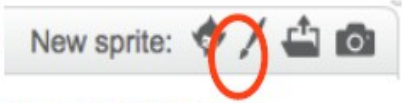


In Vector MODE use line tool and rectangle tool to draw walls

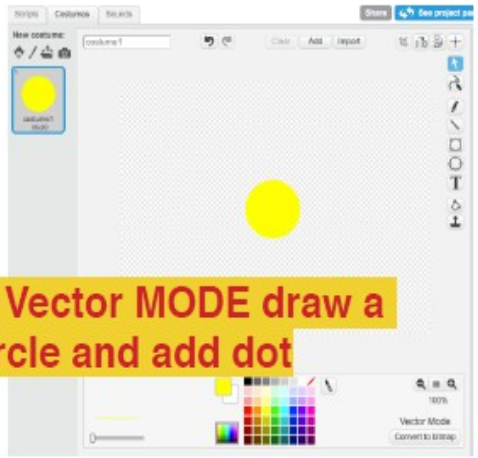
PACMAN – Create Pacman

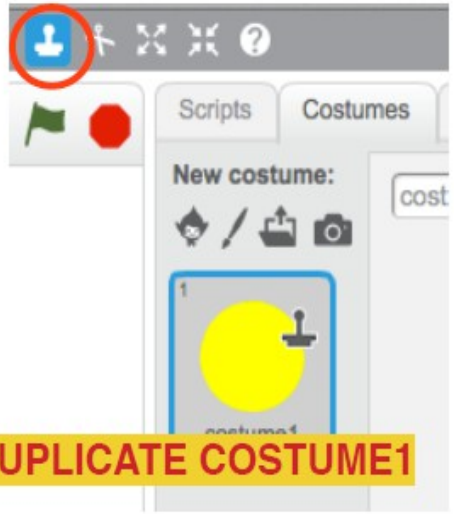
2. Create your PACMAN

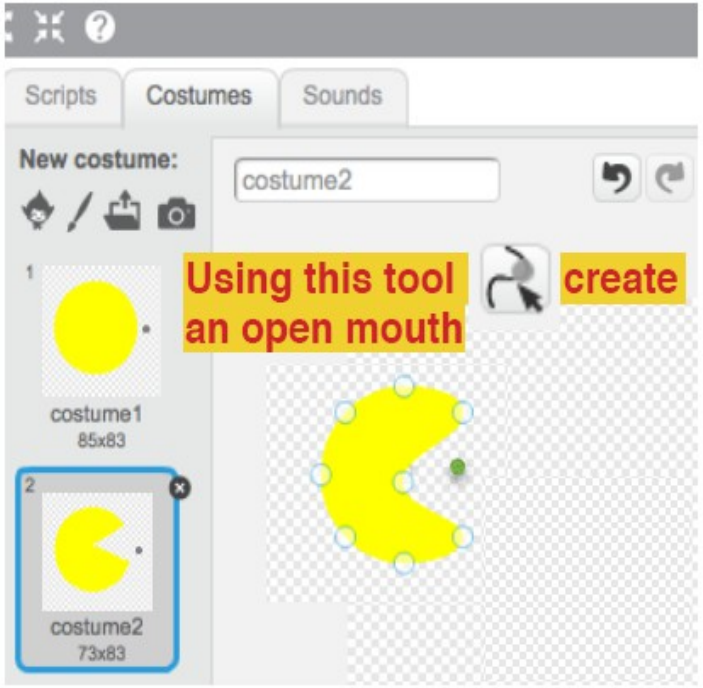
Delete the Cat Sprite & paint a new Sprite



Need to have 2 costumes. Both costumes need a dot of color just in front of the PACMAN.
This color can not be the same color as the maze or sprite







PACMAN – Move 1

3. Make your PACMAN eat!

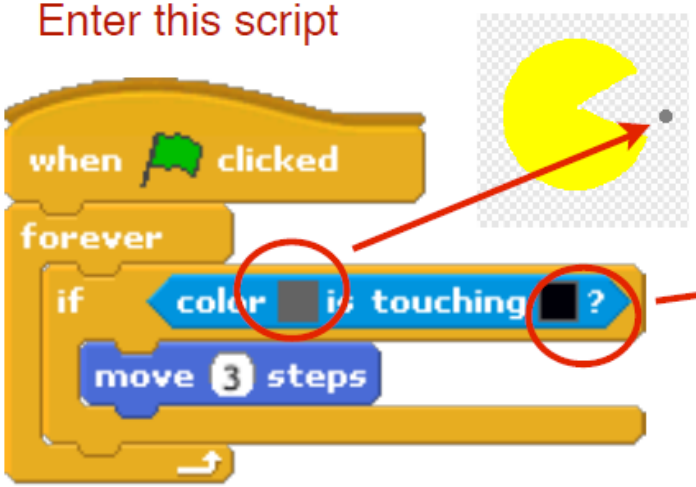
Choose the PACMAN sprite by clicking on it, in the Sprite list. Then make sure you click on the SCRIPT tab. Enter this code.

This code will place the sprite in the start position, show it and make his mouth open and close

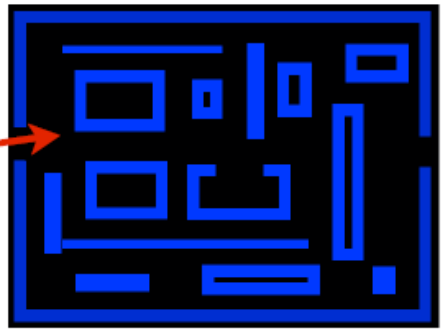
PACMAN – Move 2

4. Make your PACMAN move

Enter this script



You will have to select first the color of the dot in front of the PACMAN and then the background color of the maze

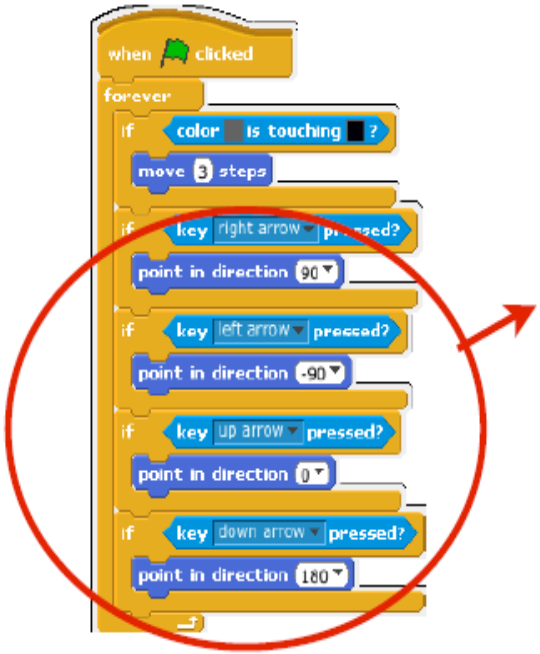


This code is telling your sprite once the GREEN FLAG click start the game by moving FOREVER but only IF the PACMAN is inbounds.

Inbounds is determine by SENSING where the PACMAN is in the maze. That is why we have a dot in front of the sprite. As long as the color of dot is on the color of the background the sprite will take 3 steps.

PACMAN – Change Direction

5. Allow players to change DIRECTION of the PACMAN



Makes Pacman turn right **IF** right arrow key pressed

Makes Pacman turn left **IF** left arrow key pressed

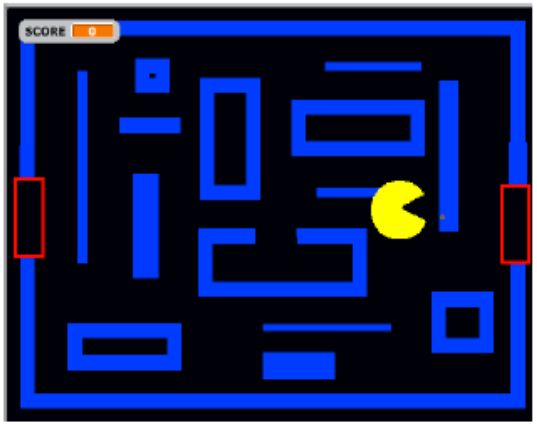
Makes Pacman turn up **IF** up arrow key pressed

Makes Pacman turn down **IF** down arrow key pressed

PACMAN – Teleport 1

6. Create the Teleports Click Paint New Sprite

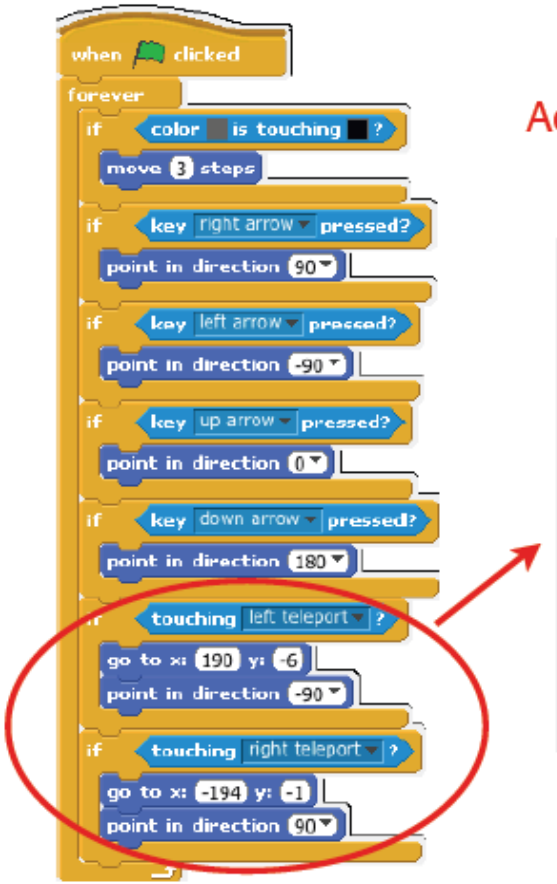
Using the Rectangle Tool draw a solid rectangle the same color as your background



Now Duplicate Sprite and move each Sprite to make an opening on opposite sides of the screen. Rename the sprites Left and Right to reflect their position on the stage

PACMAN – Teleport 2

7. Tell the PACMAN to Teleport



Add this script to the PACMAN sprite

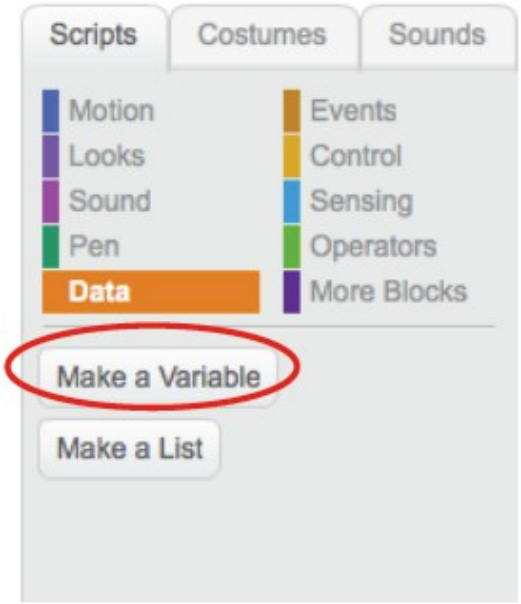
IF PACMAN touches the LEFT sprite, then PACMAN goes to the other side and points left

IF PACMAN touches the RIGHT sprite, then PACMAN goes to the other side and points right

PACMAN – Score 1

8. Lets make a VARIABLE to keep Score

Select the DATA blocks and then click on MAKE A VARIABLE



This window will open after clicking MAKE A VARIABLE

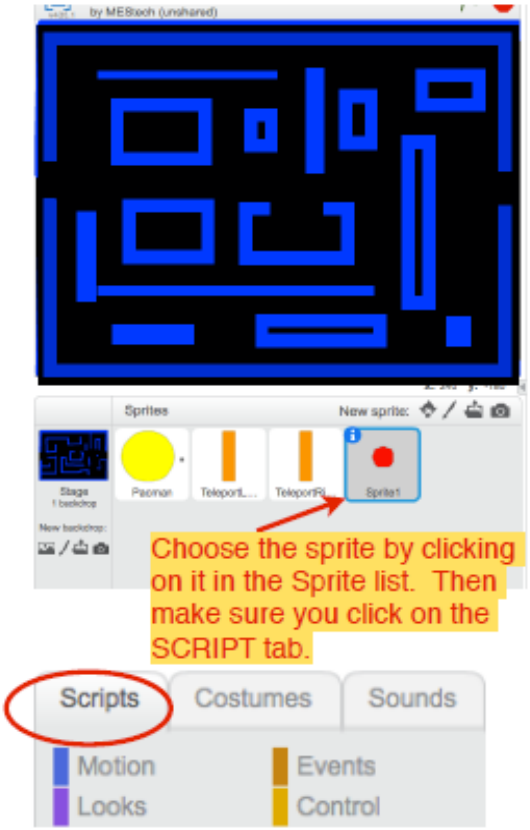
Name your variable SCORE by entering into this window and clicking OK

The Variable blocks will now appear

PACMAN – Score 2

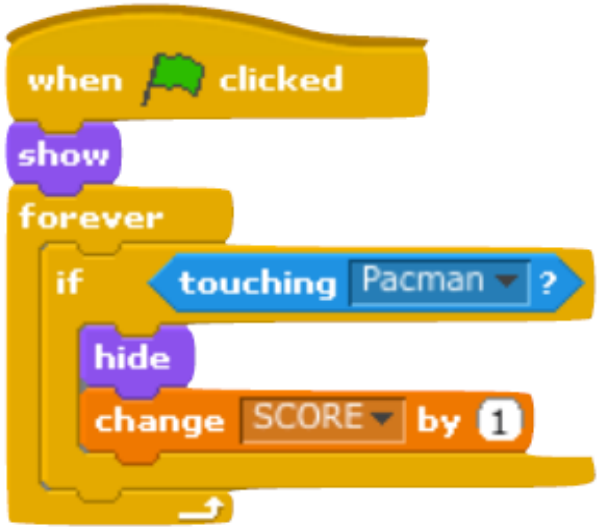
9. Give the PACMAN something to eat and score points

Make a sprite of a small dot or food item of your choice.



Enter this code

This code will show the sprite at start of game when green flag clicked. If Sprite is TOUCHING Pacman it will hide(so it appears that Pacman ate it and reward a point to the player by changing the SCORE by 1



PACMAN – Score 3

Use the DUPLICATE TOOL and make 19 more sprites and spread out through the maze.

PACMAN – Ghost 1

10. Create a Ghost

Paint a new Sprite

Place the ghost in the middle box

PACMAN – Ghost 2

11. Get the ghost moving

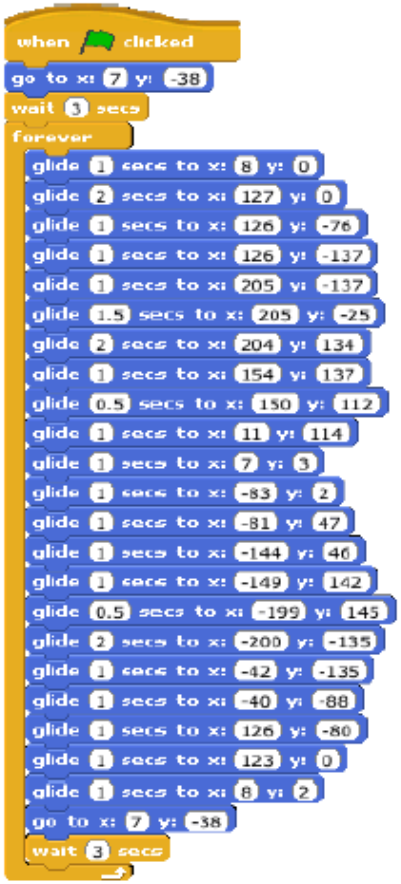
When the Green Flag clicked(start of the game), you want the ghost to stay in his box for 3 seconds to give you Pacman a head start. Then FOREVER(during the game) you will want the alien gliding around the maze, returning to his home, pause and then start gliding again.

Make sure you click on Ghost Scripts tab to enter the script

YOUR X & Y COORDINATES WILL BE DIFFERENT.

Enter the Ghost home coordinates(the position in the box)

Now you have give the alien a path to travel. For this you will want him to glide and will need to use the glide block



PACMAN – Ending 1

12. Game Over---Win or Lose

Choose the PACMAN sprite to add this additional script

Resets the score to 0 at the beginning of the game

IF PACMAN touches the Ghost sprite he will hide to appear he has been eaten and BROADCAST "Lose"

IF the SCORE = total score of all the pacdots then BROADCAST "Win"

PACMAN – Ending 2

Now you need to create 2 more sprites:

1. The Ghost catches PACMAN (the player loses)
2. The PACMAN has successfully eaten all the Pacdots without the Ghost touching (the player wins)

You got the basics of the game done, you can add to it if you like. Add Sounds, add a level or two, add Power PacDots that gives the PACMAN the power to eat the aliens for a specified time or any other idea that you may imagine!