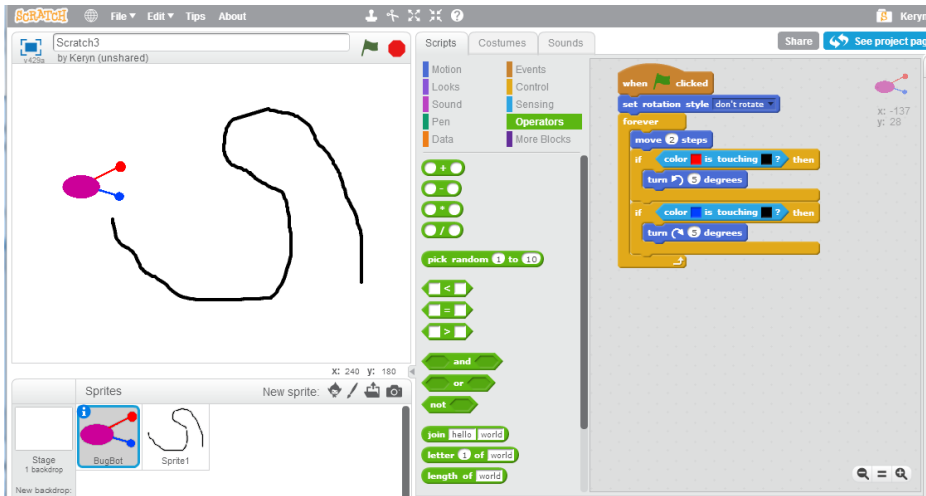


3

Line Follow Robot Step-by-Step in Scratch

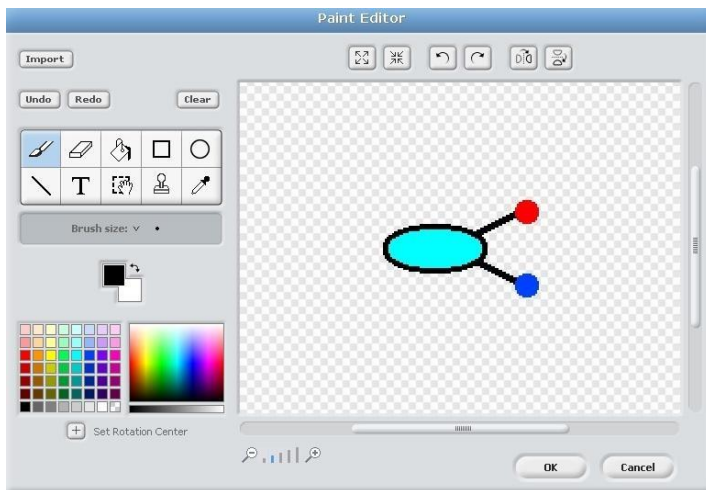


Start Scratch and Delete the Cat

1. Right-click on the Scratch Cat Icon one time.
2. Click the delete button to delete the Cat.

Make the BugBot Sprite:

3. Click "Paint New Sprite" icon and create the following Drawing:

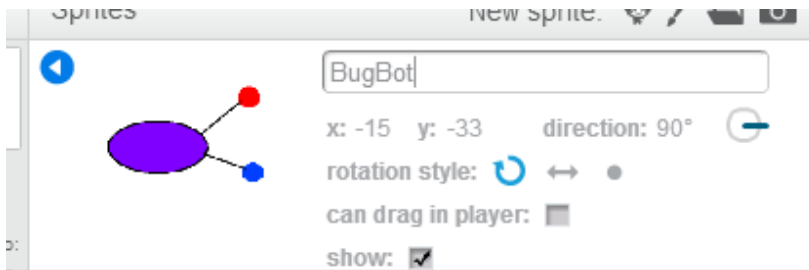


(Your Sprite must have a Red and a Blue antenna to work)

Name the Sprite:

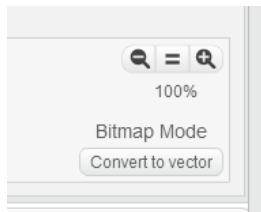
4. Click the 'i' over your Sprite in the Sprite window
5. Name your Sprite "BugBot"

3

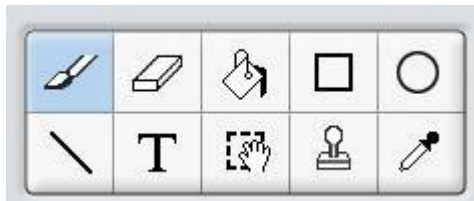


Draw the line to follow:

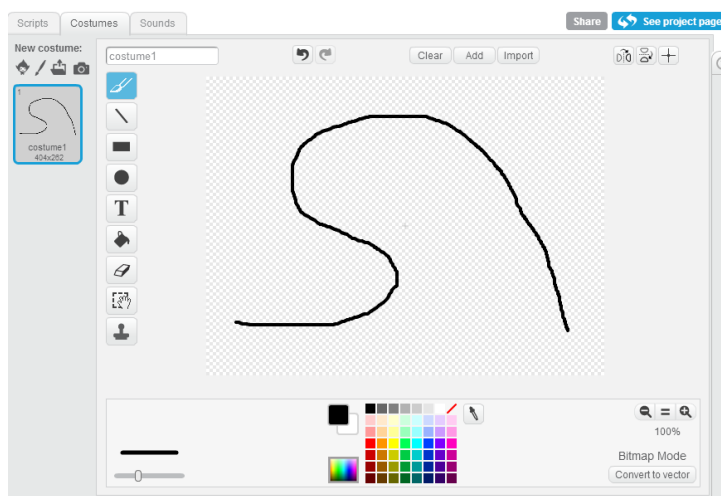
6. Click "Paint New Sprite"
7. Click the "Zoom Out" icon one time



8. Click the Paintbrush tool.



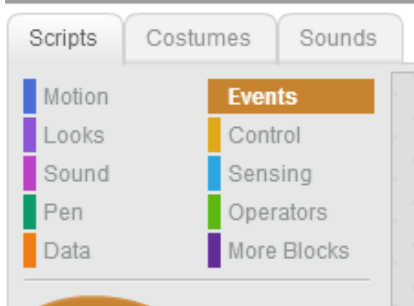
9. Select Colour Black (Should be default)
10. Draw a gentle S line
11. Click OK



3

Program the BugBot:

12. Click the BugBot Sprite one time.
13. Click the Events Icon one time in the Scripts tab



14. Drag a "When Green Flag Clicked" into the Scripts Pane



15. Drag 'Set Rotation' block onto the Green Flag block. Set it to 'all around'.
16. Drag a yellow "Forever" and attach it to the "When Green Flag Clicked"



17. Click on "Motion"
18. Drag "Move 10 steps" into the Forever.



19. Change the 10 to 2

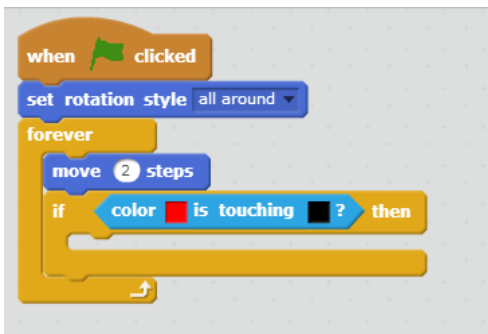


20. Click on Control. Drag an "If_then" block under the "Move 2 steps" Block

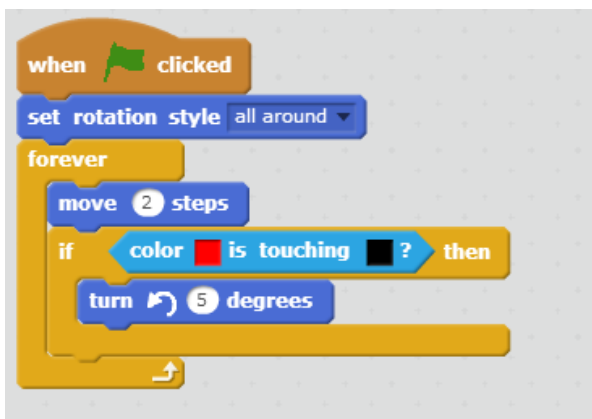
3



21. Click on "Sensing"
22. Drag a "If Colour is touching colour" block and put it into the and put it into the space in the "If_then" block.



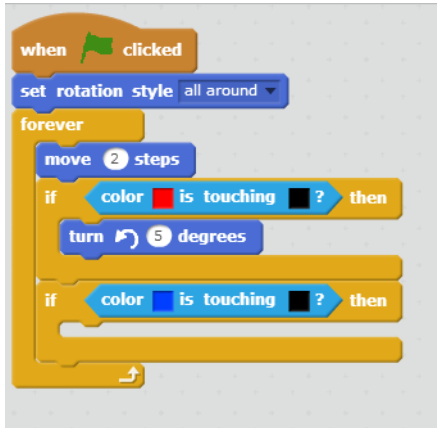
23. Click the first colour and then click the Red Antenna of the BugBot
24. Click the second colour and then click the black line.
25. It should say "If Colour 'Red' is touching Colour 'Black'"
26. Click on "Motion"
27. Put a "Turn CounterClockwise (Left) 15 degrees" block in the "If"
28. Change 15 to 5 Degrees



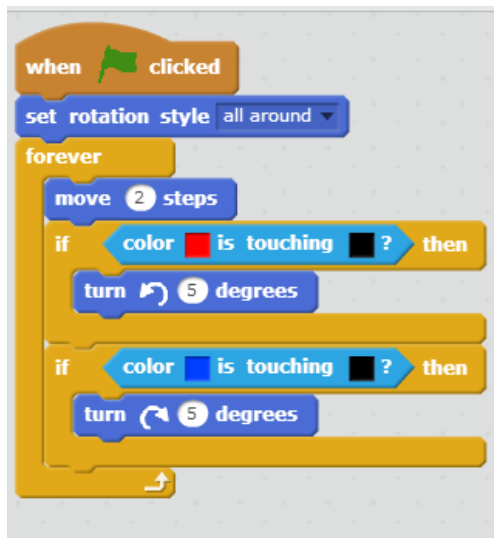
3

Repeat steps for Blue Antenna:

29. Put another "If" into the Forever Loop
30. Click Sensing and put a "Colour touching Colour" block in the 2nd "If"



31. Click the 1st colour and select the Blue Antenna.
32. Click the 2nd colour and select the Black Line.
33. Put a Turn Clockwise (Right) 15 degrees block in the 2nd "If"
34. Change 15 to 5 degrees.
35. Your Script should look like this:



Run and Save:

36. Drag your BugBot to the line.
37. Click the Green Flag and your BugBot should follow the line.
38. Click "Save"