

City Builder **Moving**

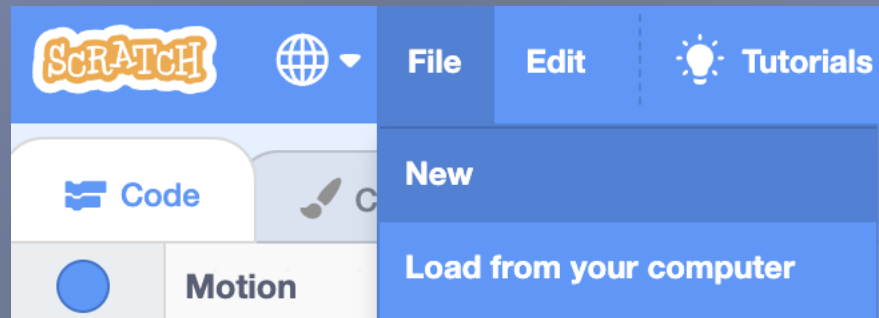
 **Ruth Patrick Science Education Center**
University of South Carolina Aiken
Infusing a love for Science, Technology, Engineering and Math



Create a project where you control
a City Builder **moving** around.

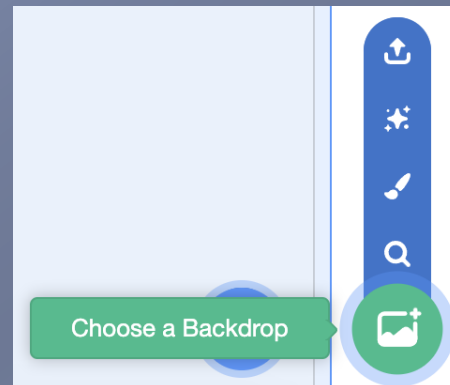
Getting Started

- Open Scratch
- Click on **File** at the top left of the screen
- Choose **New** from the drop-down menu

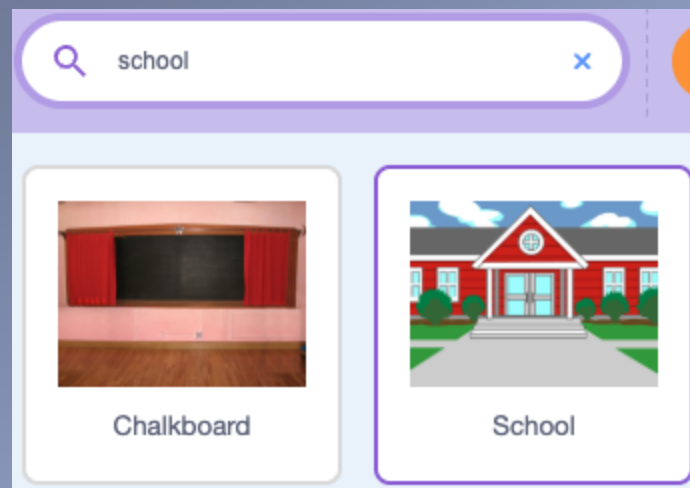


Choose a Backdrop

- Click on the **Choose a Backdrop** menu on the bottom right of the screen.

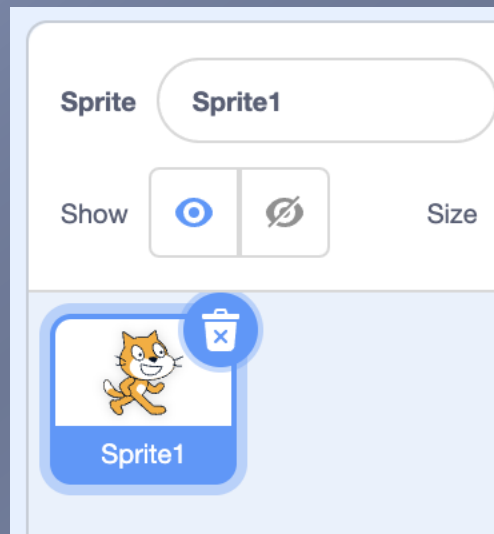


- In the search field, key “school” and then choose **School**.



Remove Scratch Cat Sprite

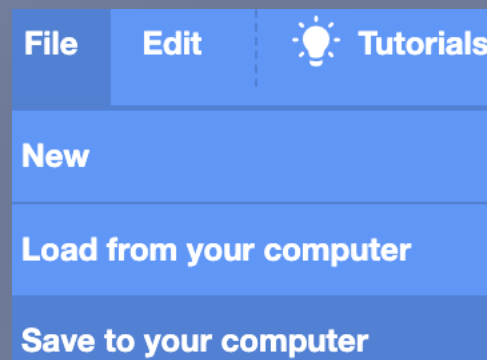
- We will not use Scratch the Cat, so click the **Garbage Can** with the X.



Save Your Project

- Save City Builder Moving

- Chose **File** then **Save to your computer**.



- Change the name (starting with your last name) to

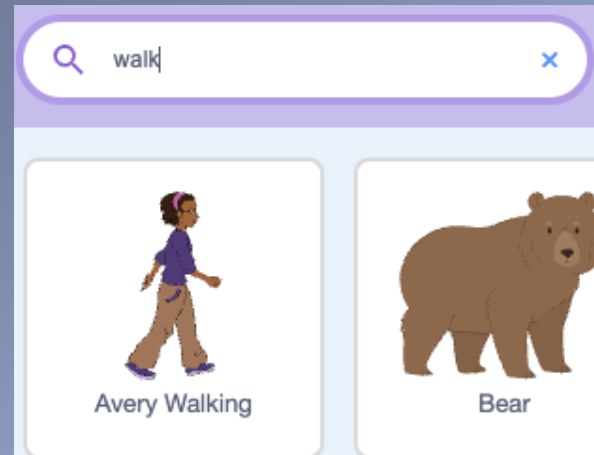
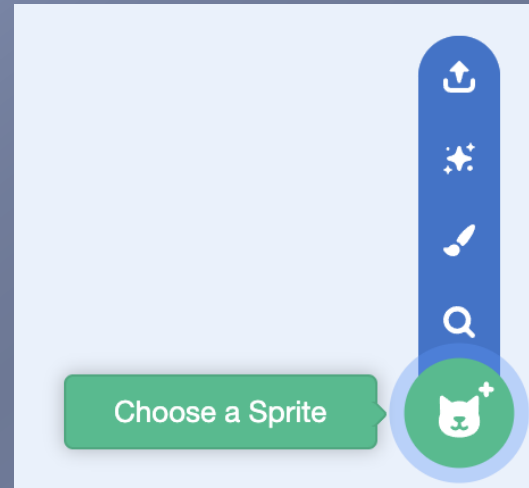
- *YourLastName* City Builder Moving.sb3
- **Example** *Patrick* City Builder Moving.sb3

- Click **Save**.



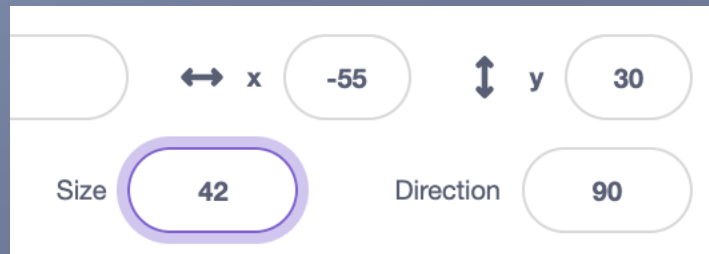
Add a City Builder Walking Sprite

- Add a new sprite by clicking on the **Choose a Sprite** icon at the bottom right.
- Key “walk” in the search field and choose **Avery Walking**



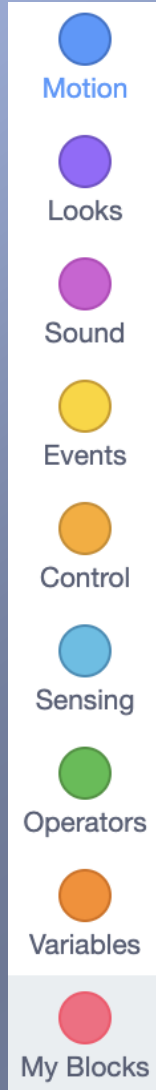
Resize your City Builder

- The City Builder is a bit too large for this project. Change the size from “100” to “42.”



A screenshot of the City Builder settings panel. The panel is white with rounded corners and contains several controls. At the top left is a white rounded rectangle. To its right are two sliders: one for 'x' with a double-headed arrow icon and a value of '-55', and one for 'y' with a double-headed arrow icon and a value of '30'. Below these are two more sliders: 'Size' with a value of '42' (highlighted with a purple oval) and 'Direction' with a value of '90'.

Code Blocks - Code Tab

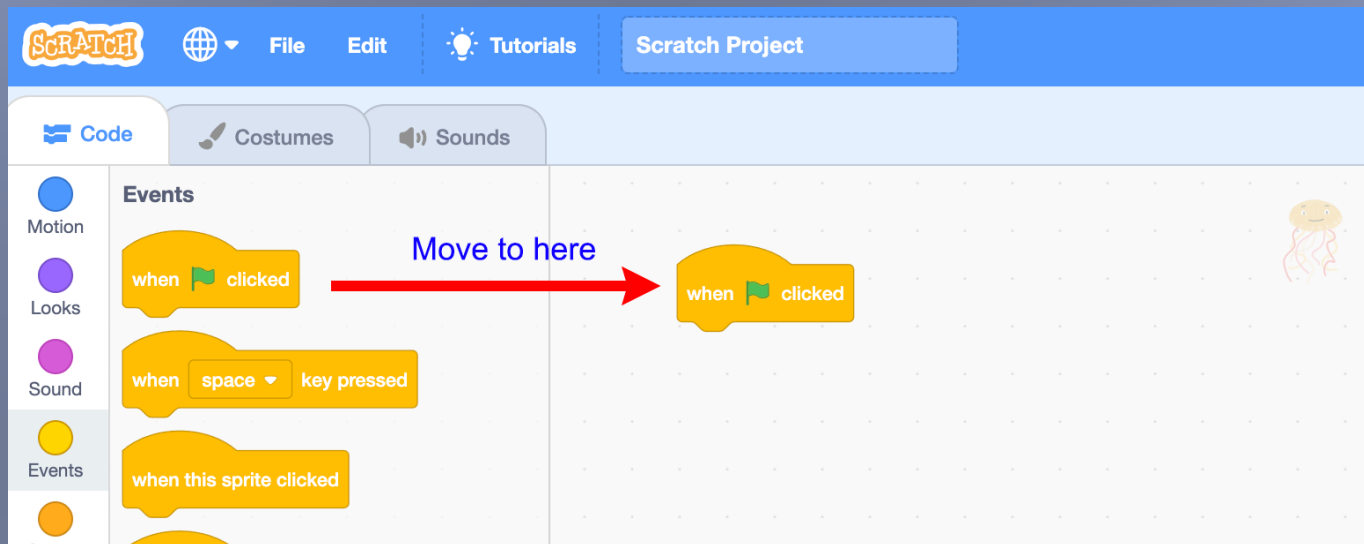


- Code blocks allow you to control your scene.
- Be sure to be in the **Code** tab. The sections of code are separated by “function” and “color.”



Coding the Sprite

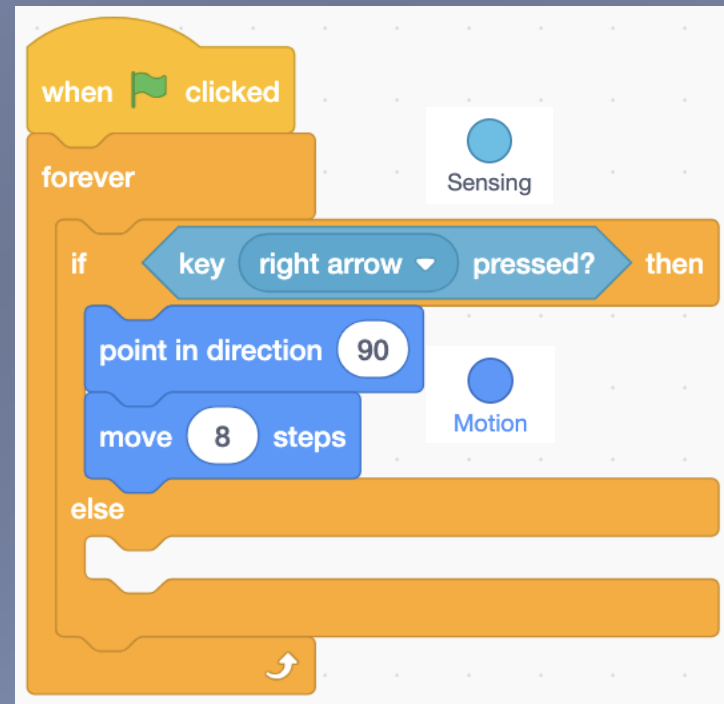
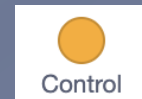
- Scratch Coding almost always starts with the “When Flag Clicked” block.
- In the **Events** section move the **When Flag Click** block to the stage.



Making your City Builder Move

- Drag blocks to look like this. The color of the blocks will help you find the function section.

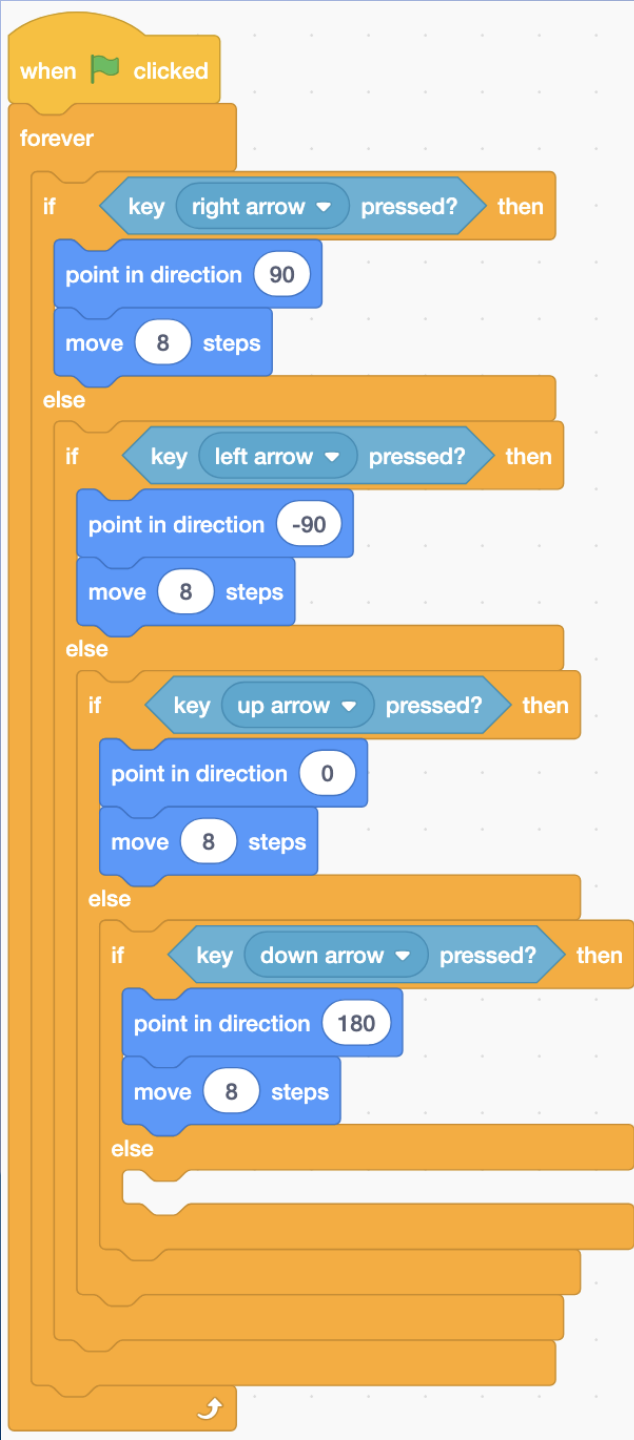
- Change:
 - Key = right arrow
 - Point in = 90
 - Move 8 Steps



- **Test result** by clicking on the **Flag**

Move in Every Direction

- Build these code blocks
- **Notice:**
 - One “If/Then/Else” block for each arrow direction pressed
 - Nested Blocks
 - Point in direction matches arrow key
 - Each key move 8 steps
- Test result



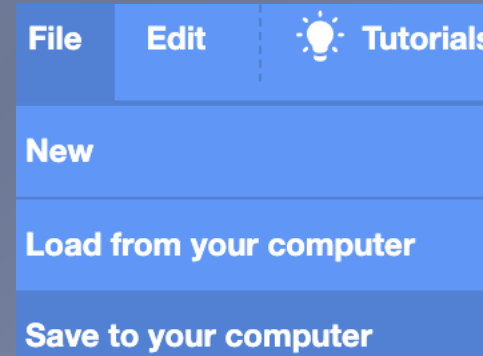
Set Rotation Style

- What did you notice about your City Builder when it moved?
- Add the Set Rotation Style block
- Test result



Well done!

- Once you complete your City Builder moving project, you can turn this project into a game.
- Save your project
 - Chose **File** then **Save to your computer**.



- Click on the name that you saved earlier
- Click **Save** then click **Replace**.

