

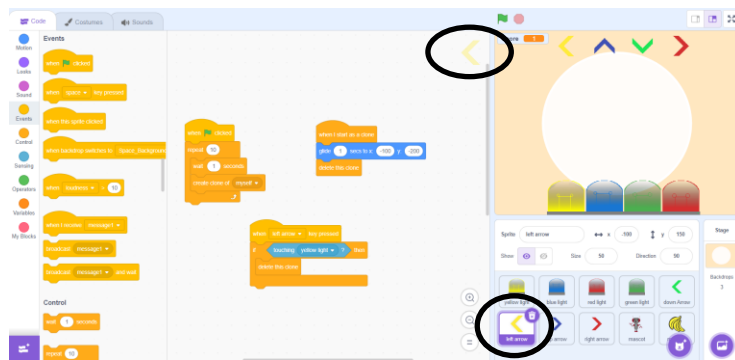
## LightUp Workshop Part 4 – Add Difficulty

**Below are the detailed instructions intended to help guide you through the LightUp Workshop.**

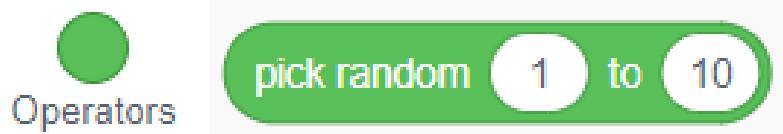
**A word that will be used often is the word Sprite. This is what Scratch calls an object or an image. They can be anything such as animals, shapes, or characters, but today we will be using lightbulbs and arrows.**

### Guided Steps:

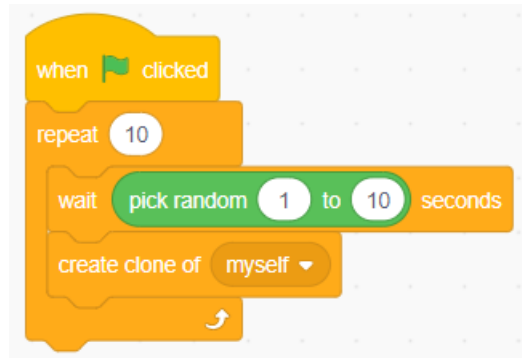
1. Before starting the final part of the workshop, make sure that you have completed the first, second, and third part of the workshop.
2. To start, make sure that your left arrow sprite is selected. When you click back to the yellow arrow you should of course see your code.



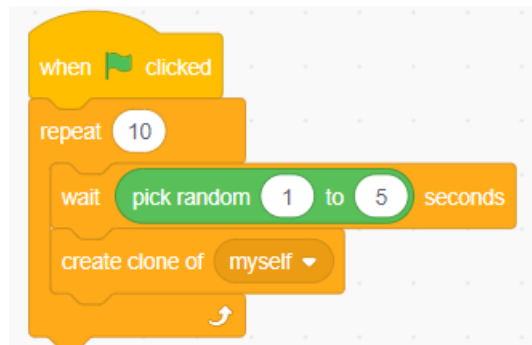
3. Right now, every time we start the game all our arrows fall at the same time, but what we want to do is have the arrows fall at different times giving it that game feel.
4. Go to your “Operators” category and find the “Pick random \_\_\_\_ to \_\_\_\_” block.



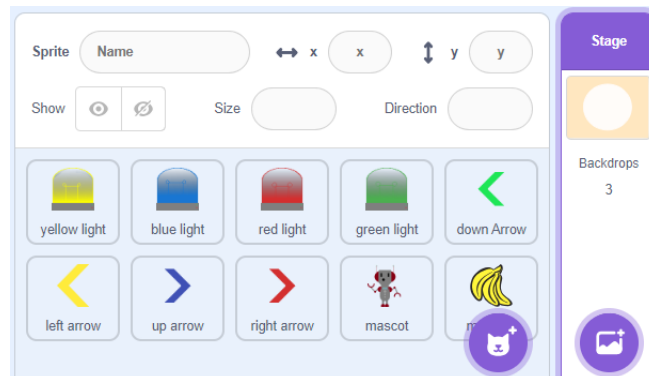
5. Drag it to your workspace and place it in the wait block that is under the “When \_\_\_\_ clicked” and the “Repeat \_\_\_\_” block.



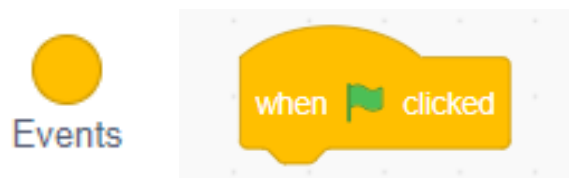
6. Change the pick random value to display 1 to 5 seconds.



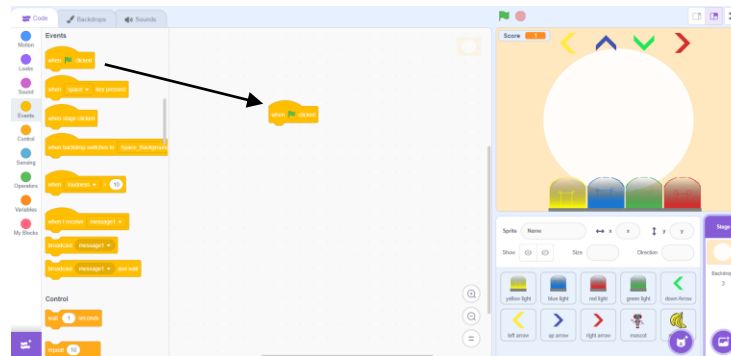
7. Press play and watch how sometimes the yellow arrow does not fall at the same time as the other arrows.
8. Now, we want to track the users Score and to do so we need to create that variable. Select the “Stage” sprite on the right bottom corner.



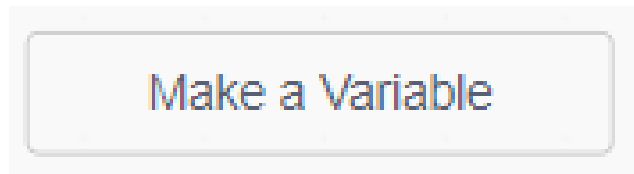
9. Go to the “Events” category and find the “When \_\_\_\_ clicked” block.



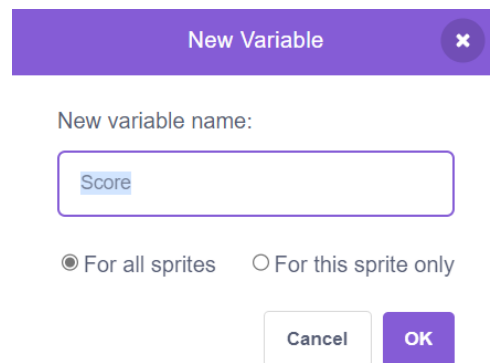
10. Drag it to your workspace.



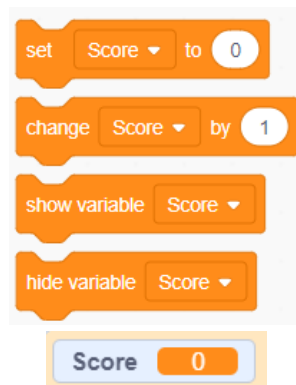
11. Scroll to the “Variables” category and select “Make a Variable”.



12. Enter Score as the name of your variable and select “Okay”.



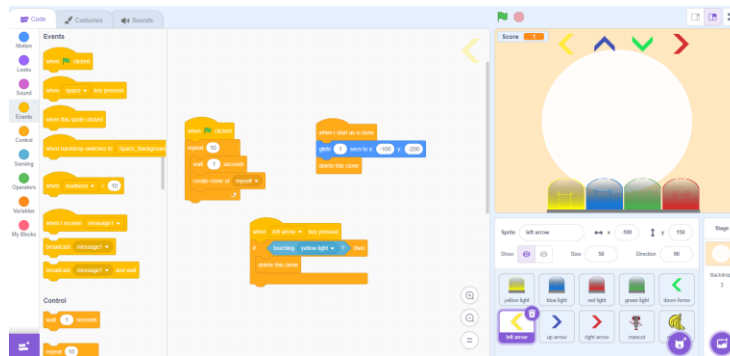
13. After your new variable has been created, you should see that new blocks have been created, and a score card appears at the top left of your background screen.



14. Drag the “Set \_\_\_\_\_ to \_\_\_\_” to your work area and place it under the “When \_\_\_\_ clicked” block.



15. This is to make sure that every time the user starts a new game, they will start off with a score of zero.
16. Finally let's add the code to change our score value when the user scores a point.
17. Select your yellow arrow by clicking the sprite at the bottom of the page.



18. Go back to the “Variables” category and find the “Change \_\_\_\_\_ by \_\_\_\_”.



19. Drag it to your workspace and place it under your “If touching \_\_\_\_\_? Then” block, but above the “Delete this clone”.



20. Run the game again and notice that when you click the left arrow, and it is touching the yellow light you gain point.
21. Now it's your turn to try! Use 4-7 and 17-19 to finish coding the rest of arrows.
22. When you are done your game is ready to play! As you play you can change how many points a user can get for each arrow, the wait seconds, and so much more to make your game fun to play!

Happy Coding!