

Computing



WALT code.

WILF:

- Use your storyboard
- Understand what a variable is
- Use tiles: sensor, variable, motion, event.
- Test your programme



Today we are going to focus on sensors, but I would also like you to add a **variable**.

Variables are used to store information to be looked at later and changed in a computer program.

Examples:

In a game, this is your score tracking.



On websites, they may use variables to see how many times you have visited, or what you have clicked on (for history of shopping and so forth). A traffic light camera may store the 'variables' of car number plates if they have skipped a red light.

I have adapted my game to include a variable.

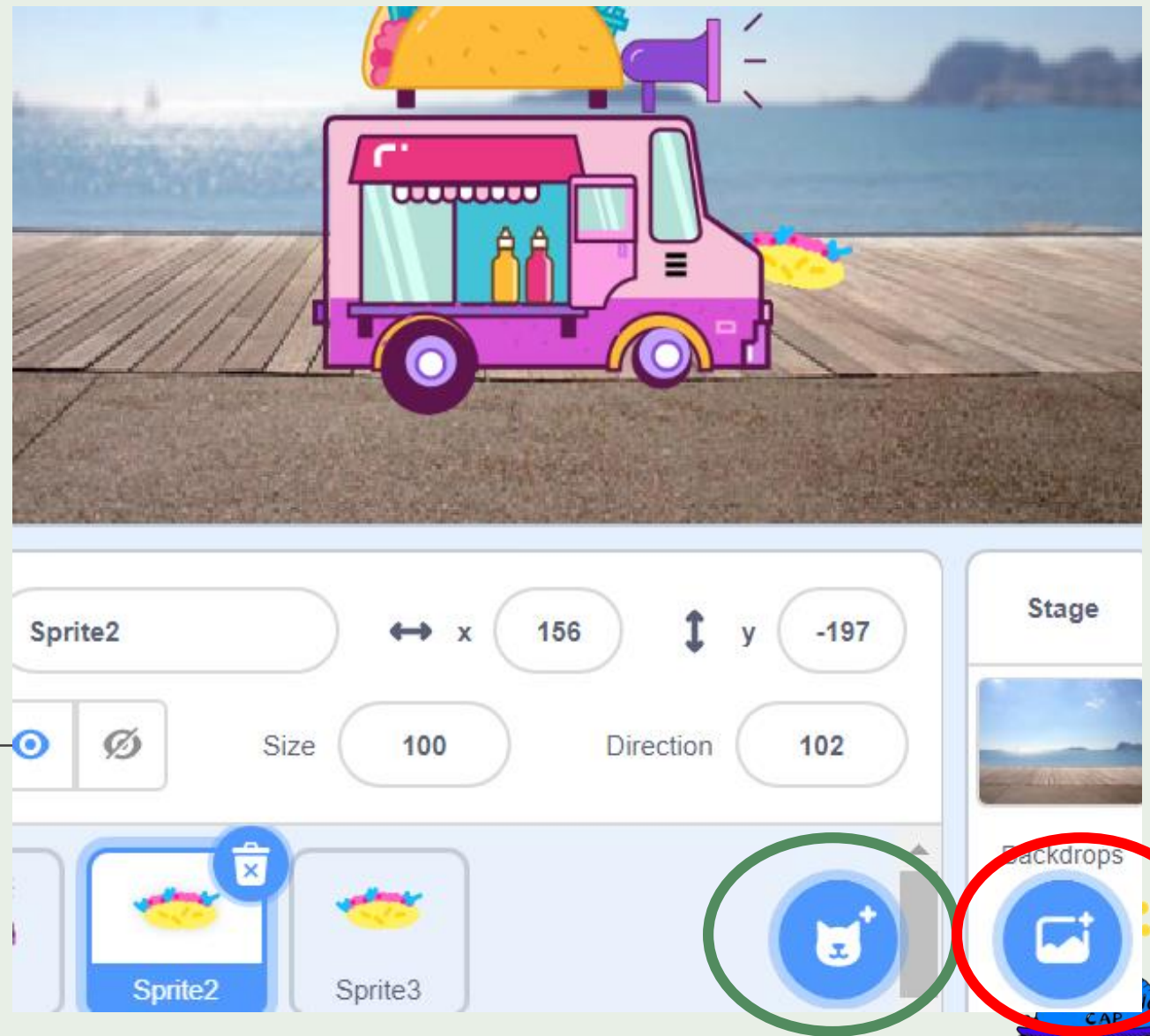
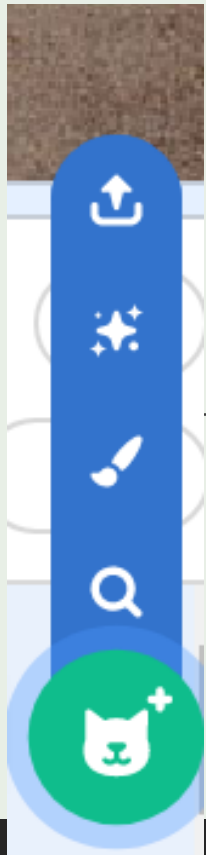
Please have a look here: <https://scratch.mit.edu/projects/382158354/editor/>

Can you spot the variable? What does it do?

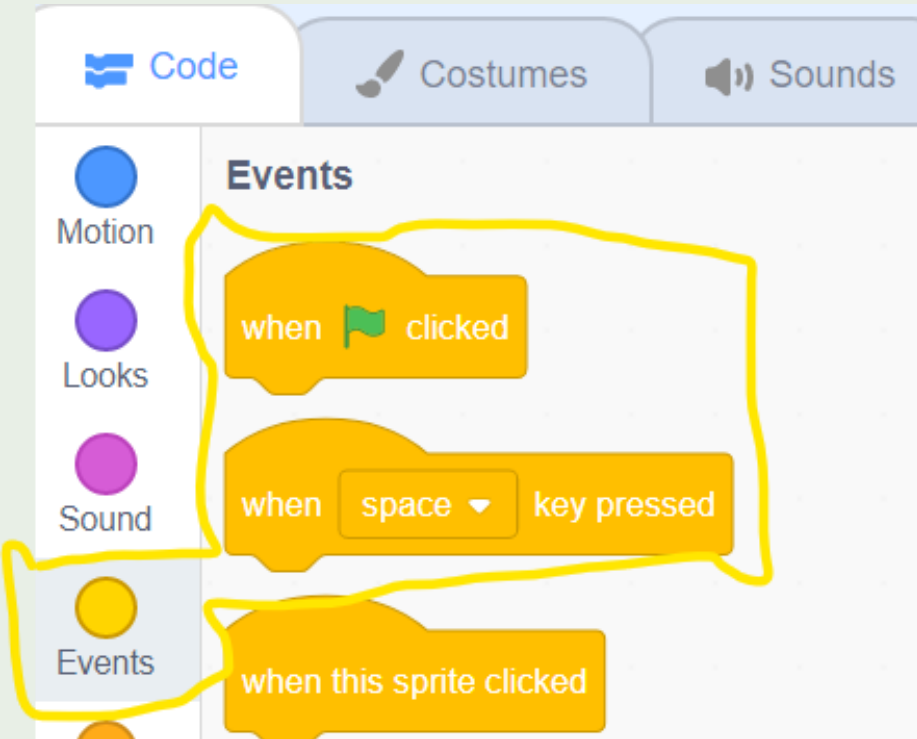
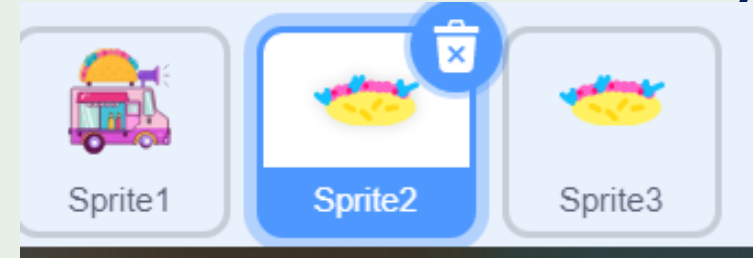


To make your game, you will first need to make a **sprite** and a **background** (backdrop).

You can either select a sprite from the gallery, or paint one of your own - hover above the options that come up to choose.

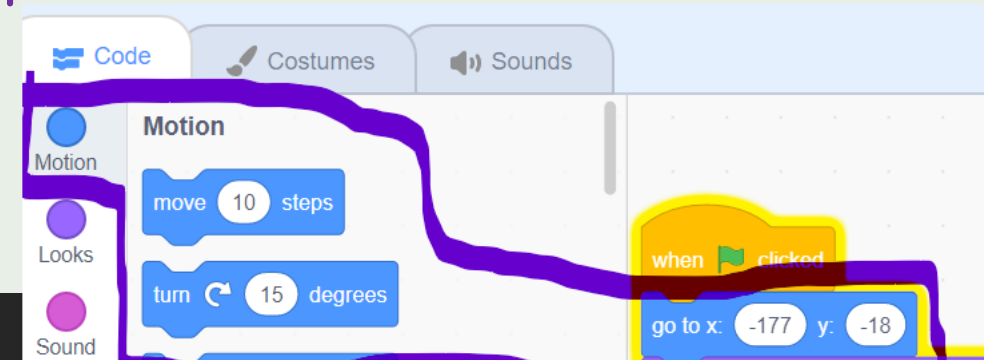


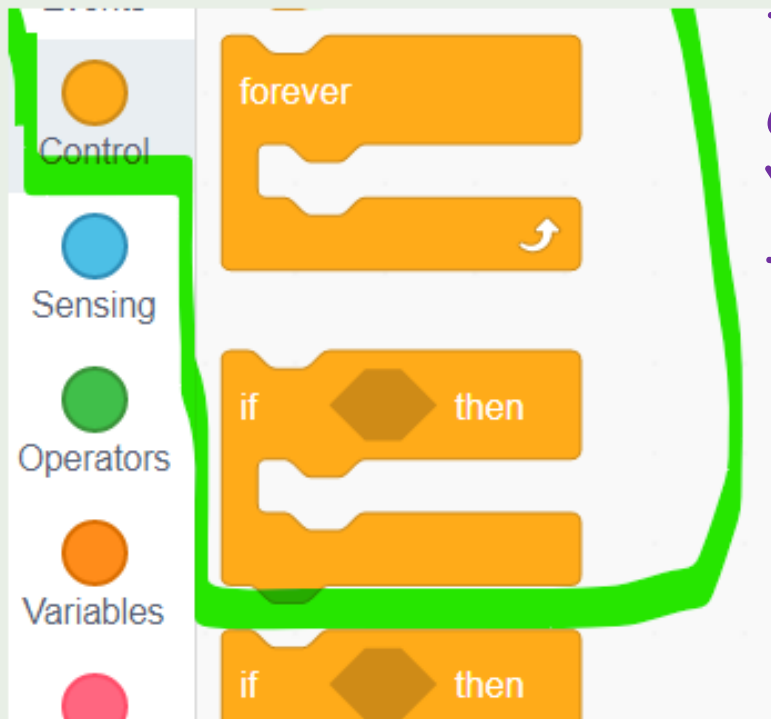
Then, click the code tab, and your sprite, to start coding. You can add other sprites to code as well if you like: I have done this in my game, using other sprites as something to catch.



Choose one of these events tabs to start the code. I recommend the green flag! When this is clicked, it will reset your programme to the beginning.

Motion makes your sprite move.



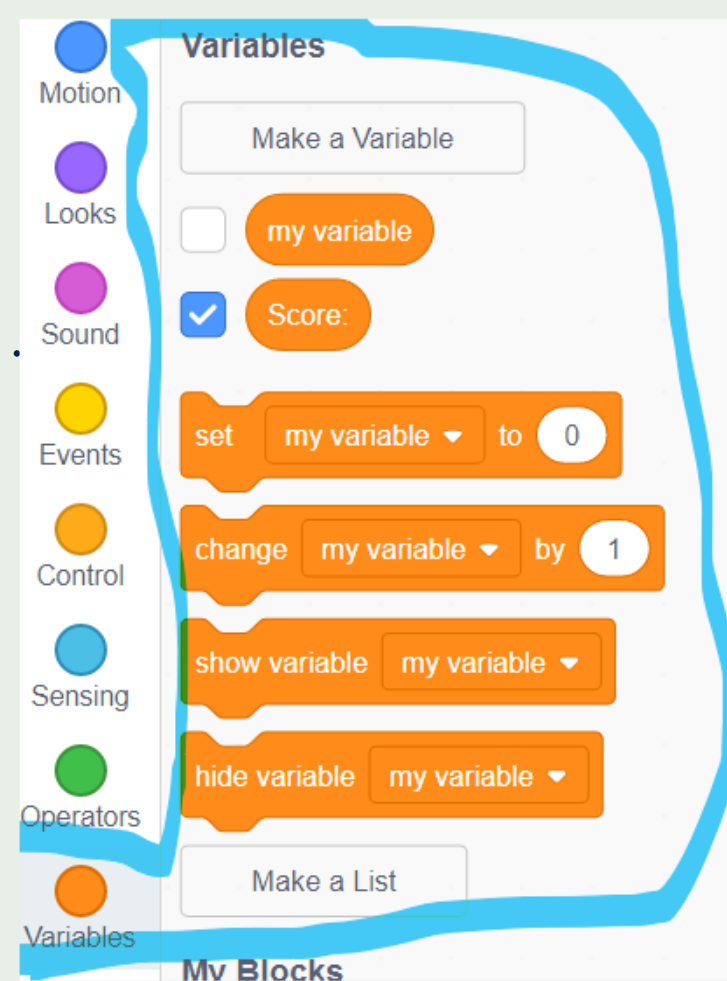


The *control* tab is important - it helps you direct your code for sensors.

You drag sensors into the if _ then box, or others if they work! Explore the tiles. 😊

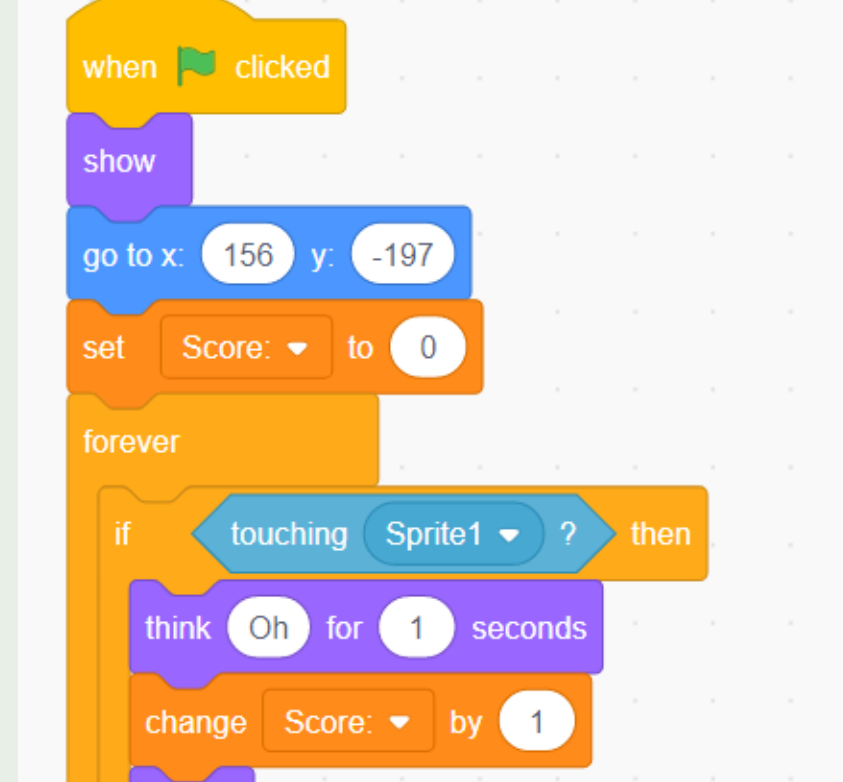
I used *forever*, then *If_ then*, with my sensor inserted to make my sprites move when arrows were pressed.





To make a variable, click the *variables* tab. Then, 'make a variable' Name your variable. Add it to your game using these tabs, and selecting your variable by name in the drop down list.

Tip: you'll need to put a set score to 0 by your flag to reset it at the beginning of each run.



If you get stuck, Scratch have a tutorial 'Make a clicker game' to walk you through making a sensor, variable game:

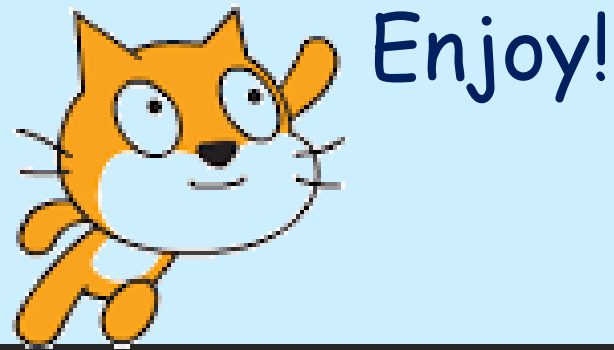
<https://scratch.mit.edu/projects/editor/?tutorial=all>

Today you will be coding your game using Scratch.

<https://scratch.mit.edu/>

Please use your storyboard and the WILF features:
Sprite, Backdrop, Event, Motion, Control, **sensor**, **variable**.

Remember: do not talk to anyone you do not know in person online. If you're unsure, ask an adult.



Enjoy!