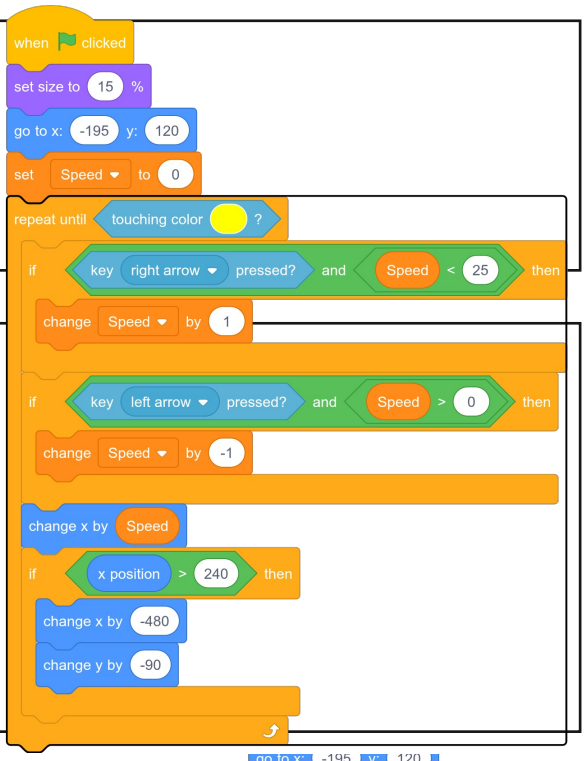
Fearless Frankie



Starter:
https://scratch.mit.edu/projects/1315644602/editor

Don't forget to remix and rename. Remix

1 Fearless Frankie is ready for the ultimate stunt challenge!
Speed along the track, jump over wild obstacles, and try to land safely on the other side.
Can you help Frankie make it through without crashing?



2 The stage has four platforms and Frankie starts on the top one. Add code to accelerate and brake;

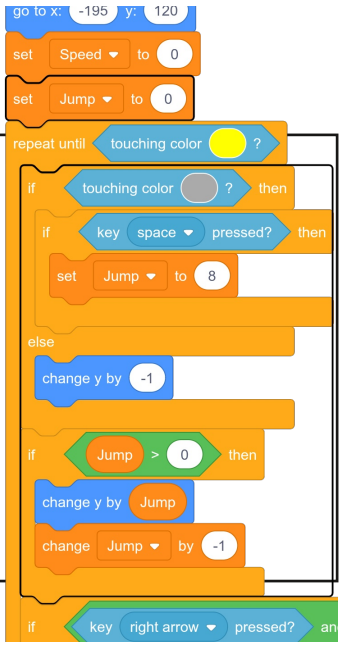
- Create a variable **Speed** for the speed of the bike.
- Use the right arrow to accelerate up to a maximum speed.
- Use the left arrow to brake.
- Drop down to the next platform after reaching the right of the screen.

3 Frankie needs to be able to jump, but only if the bike is touching the ground. First, create a new variable **Jump** and then add an **if … else** block;

- If Frankie is touching the ground (the grey colour) and space is pressed then set the **Jump** variable.
- If Frankie is not touching the ground then fall towards the ground.

Next we need to use the Jump variable to make the bike to up. So if **Jump** is greater than zero;

- Move the bike upwards.
- Reduce **Jump** by one.



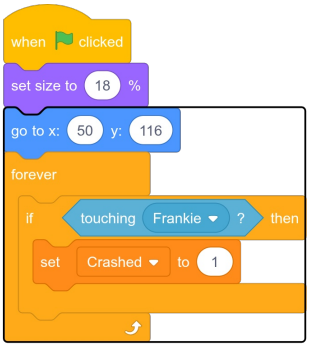
4

Lets put some obstacles in the way. There are four sprites; a bus, some rocks, a muffin and a robot. Use the **go to** block to place the objects in the right place. You can put them anywhere and here are my suggestions;

- Bus at x=50, y=116
- Rocks at x=130, y=32
- Muffin at x=-130, y=70
- Robot at x=-75, y=152

Then create a **forever** loop to check if the object has been hit by Frankie.

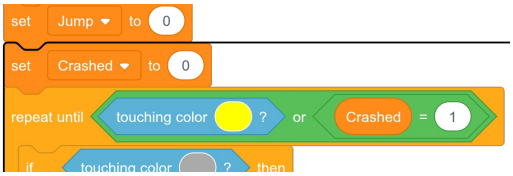
- Create a new variable **Crashed** and set this to 1 when the object has been hit.



5

Frankie needs to stop after hitting an object. This can be done simply by modifying the condition on Frankie's **repeat**;

- Check if **Crashed** is 1.
- Remember to initialise **Crashed** to 0 before the repeat loop.



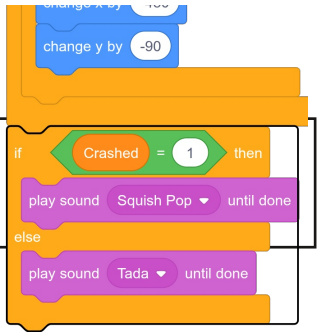
Note

Crashed is a special type of variable called a **flag.** A **flag** is used to say if something is **on or off,** or if something is **true or false.** Think of when you want to ask a question at school. Your hand is like a flag that you can put up if you have a question or down if you do not.

In this case, it is showing if Frankie has or has not crashed. Unlike other variables, like time or score, it can only ever be 0 (off or false) or 1 (on or true).

6

Finally, play a sound depending on whether Frankie crashes or reaches the end.



7

What else can you add? Here are some ideas;

- When Frankie gets to the end, start again at the top. Put all the obstacles in different places.
- Add new obstacles. Maybe something that Frankie needs to ride under instead of jump over.
- Make the obstacles move around. For example, the robot could walk left and right.
- Something else from your own imagination!

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