How it works

The first part of the program intializes the vertical (y) speed, the "jumping state" and the initial position to 0.

Then it starts an infinite loop that takes care of the vertical movement by using the y-speed variable.

The second part of the program keeps on checking if the red points are touching the ground. If it's the case, it starts a new jump when the space key is pressed. Or stops the jump if we just landed on the ground.

While the character is jumping, the vertical speed is reduced by 0.5 until the maximal downwards speed of -10 is reached.

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Coderdojo Zürich, Ale Rimoldi.
Based on https://wiki.scratch.mit.edu/wiki/Jumping

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Jumping

Jumping from floor to floor.



Jumping

Jumping from floor to floor.



Jumping



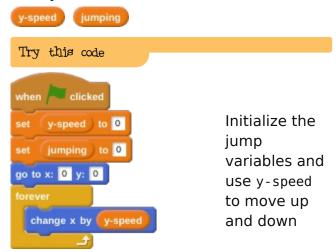
Get ready

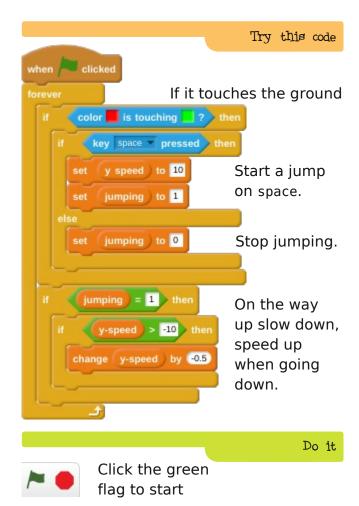
Chose a sprite or draw your own, then add two small colored points under the feets:



We will use them to detect when the sprite touches the ground.

Finally we need two variables:





Jumping



Get ready

Chose a sprite or draw your own, then add two small colored points under the feets:



We will use them to detect when the sprite touches the ground.

Finally we need two variables:

```
y-speed jumping

Try this code

when clicked

set y-speed to 0

set jumping to 0

go to x: 0 y: 0

to move up and down
```

```
Try this code
when Clicked
                    If it touches the ground
      color is touching ? then
         key space ▼ pressed then
           y speed ) to 10
                              Start a jump
                              on space.
          jumping ) to 1
          jumping to 0
                              Stop jumping.
       jumping = 1 then
                              On the way
                              up slow down,
         y-speed > -10 then
                              speed up
      change y-speed by -0.5
                              when going
                              down.
        £
                                        Do it
         Click the green
```

flag to start