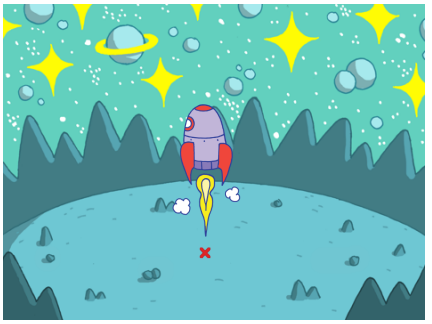
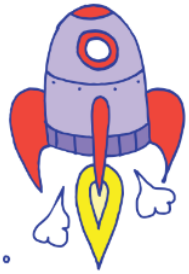
Lunar Lander

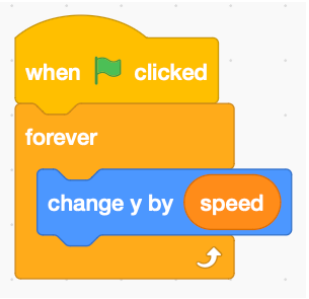


Register/login at https://scratch.mit.edu

Use positive and negative speed to control a rocket landing.



1) Choose a nice planet background to land on.
2) Create a new rocket sprite and adjust the size.
3) **X** marks the landing spot. Add a **Button5** sprite, call it X, and put it below the rocket.
4) Create a variable called **speed** to control the rocket.
5) Change **speed** to a slider (right-click on it).
6) For positive and negative speed **change slider range** to: -10 to 10 (right-click on it).
7) Add a **forever** loop to the rocket to **change y by** the **speed**.

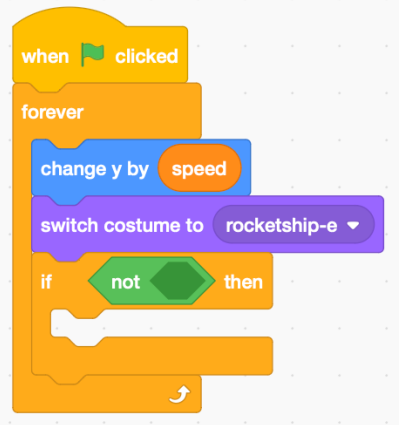


*Is the rocket touching the **X**?*
Don't include the flame in this check.

8) Inside the loop, **switch costume** to one without a rocket flame.

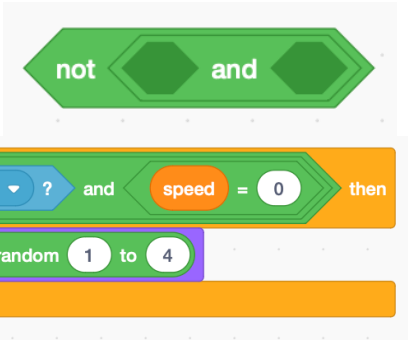
*Carry on flying if it has **not** landed.*

9) Add an **if** block, with a **NOT** operator.



*The rocket can only land if it is touching the **X***
***AND** the rocket isn't moving (speed=0).*

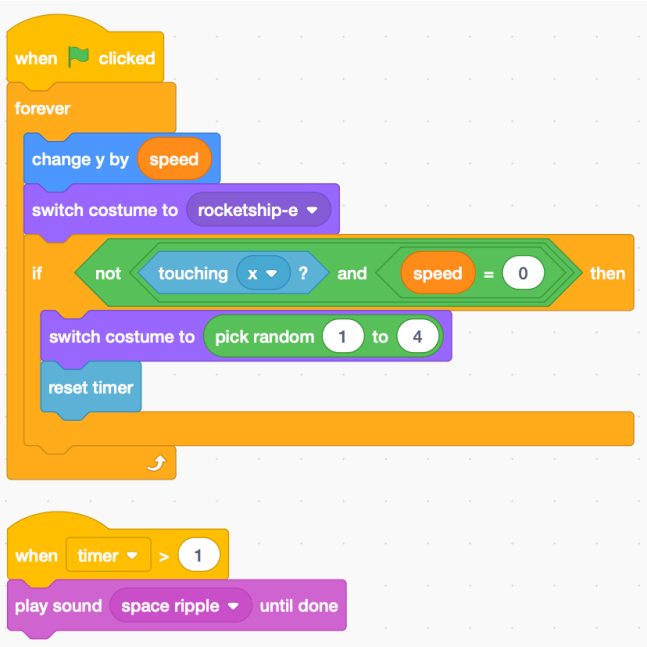
10) Add an **AND** operator inside **NOT**.
11) On one side of the **AND**, test for the rocket **touching X**.
12) On the other side of the **AND**, add a test for **speed=0**.



13) Inside the **if** block, **switch costume** back to one with a flame to show the rocket firing.

*The rocket has landed if it's touching the landing spot, and the speed isn't changing. Use a **timer** to count how long it's been since the engine last fired.*

14) **Reset timer** to 0 every time we switch to a rocket firing costume.
15) When the **timer** reaches **1 second** it's landed.
16) **Play** a space sound on landing.



Save** your code with a good name. **File > Save now