

# Fireworks



Starter:

<https://scratch.mit.edu/projects/1282281293/editor>

Don't forget to remix  
and rename.

Remix

**1**

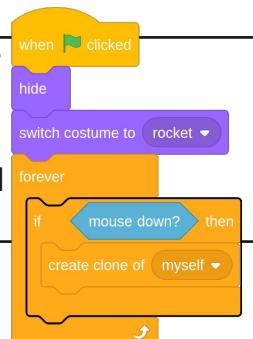
The starter project has a night time background and a firework sprite.

- The fireworks will fly into the sky and then explode!
- The firework sprite has three extra costumes to show the explosion.

**2**

In the rocket sprite check when the mouse button is pressed tell it to launch.

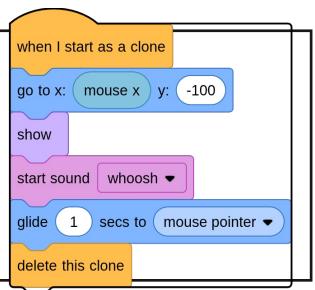
- This will not actually make the rocket appear. Instead it makes a **clone** (or copy) of the sprite and the next script will launch it.



**3**

When the clone of the rocket is created;

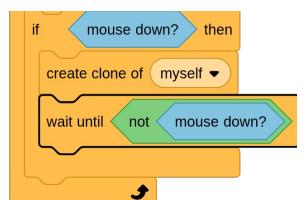
- Put it at the bottom of the screen underneath the mouse.
- Make it fly up to the mouse with a "whoosh!"
- Make it disappear (delete this clone) once it has reached the top.



**4**

You will have found that if you press the mouse button and then keep it pressed you make lots of rockets appear. We can prevent this from happening;

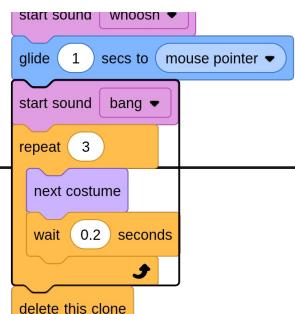
- After the **create clone** block, add a **wait until not mouse down** block so that holding the mouse button does not create lots of rockets.



**5** Now to make the explosion. In the clone script, when the rocket has reached its zenith;

- Play the 'bang' sound
- Show each of the three explosion costumes

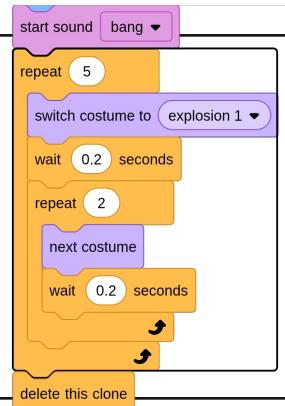
(**Zenith** means the highest point that the firework reaches)



**6** **(Optional)** You can make the explosion go on for longer but it is a bit tricky;

- You need to go through each of the three costumes but skip the first one, which is the firework itself.
- Change to the explosion1 costume.
- Then change to the next costume **twice**.
- Repeat all of this as long as you want.

This will replace the simple explosion animation from step 5 because we are creating a longer, looping version instead.



**7** **(Optional)** It might be more interesting if the fireworks and explosions were different colours.



- The block on the right changes the sprite to a random colour.
- See where you can put this block in your code.

**8** What can you add to make it better? Perhaps;

- Make the rockets fly off in different directions instead of just up.
- Have a sequence of rocket that form a pattern.
- Make the flight of the rockets more realistic, so that they start fast and then slow down as they are about to explode.
- Something else from your own imagination!

