

2 STAGE

A SPACE ODYSSEY!

★ Chapter Objective

Create an outer space sprite costume for Scratchy & program movements & sounds.

The Game

Help Scratchy avoid the lightning bolts & collect the 7 dimensional strings to save the day!

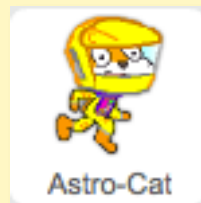
*Watch YouTube video: "Custom Sprites"


** Download file "Scratch Stage 2" →

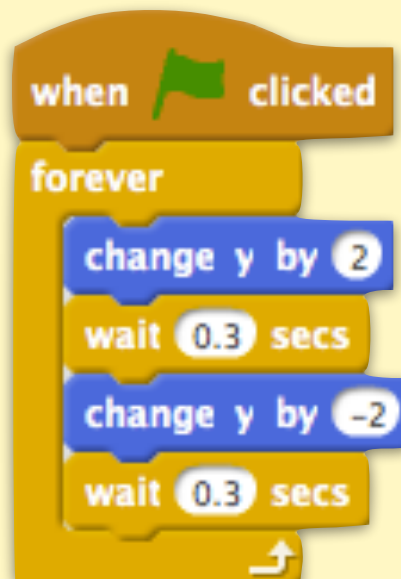
Scratch Stage 2

Program a floating space effect

1. Click the "Astro-Cat" Sprite →
2. Create the following stack:




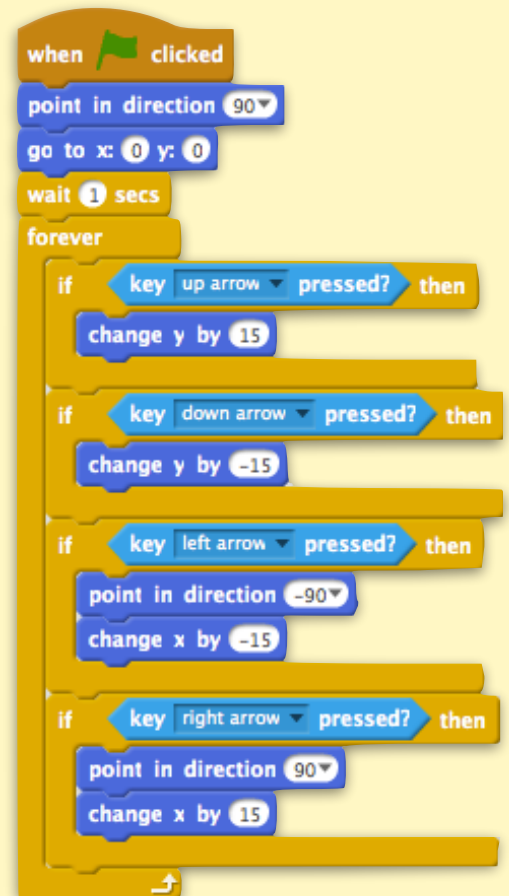
"when  clicked"
"forever"
"change y by 2"
"wait .3 secs"
"change y by -2"
"wait .3 secs"



Add Movement for Scratchy


3. Create the following stack to allow Scratchy to move up, down, left, and right using the keyboard:

“when  clicked”
“point in the direction 90”
“go to x: 0 y: 0”
“wait 1 secs”
“forever”
 “if” “key up arrow pressed?” “then”
 “change y by 15”
 “if” “key down arrow pressed?” “then”
 “change y by -15”
 “if” “key left arrow pressed?” “then”
 “point in the direction -90”
 “change x by -15”
 “if” “key right arrow pressed?” “then”
 “point in the direction 90”
 “change x by 15”



Program which costume Scratchy wears


4. Create the following stack:

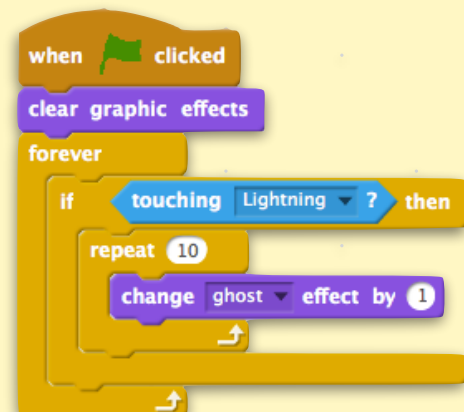
“when  clicked”
“switch costume to Astro-Cat”
“forever”
 “go to front”



Make Scratchy become invisible (like a ghost) when struck by lightning

5. Create the following stack:

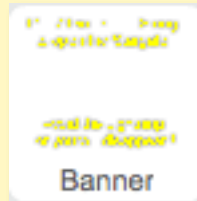
“when  clicked”
“clear graphic effects”
“forever”
 “if” “touching Lightning ?” “then”
 “repeat 10”
 “change ghost effect by 1”



Scratchy's programming is all COMPLETE!!!

Program the Start Banner

6. Click on the “Banner” sprite



7. Create the following stack:

“when  clicked”

“hide”

“go to x: 0 y: 0”

“go to front”

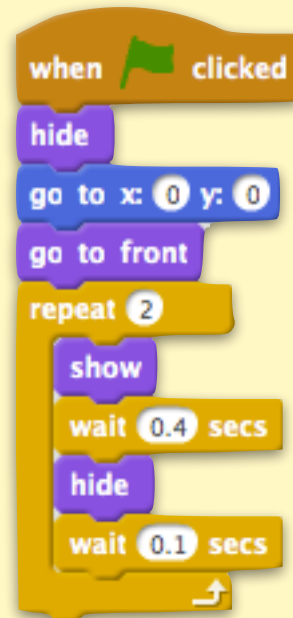
“repeat 2”

 “show”

 “wait 0.4 secs”

 “hide”

 “wait 0.4 secs”



Program the Stage costume

8. Click the “Stage” Sprite



9. Create the following stack:

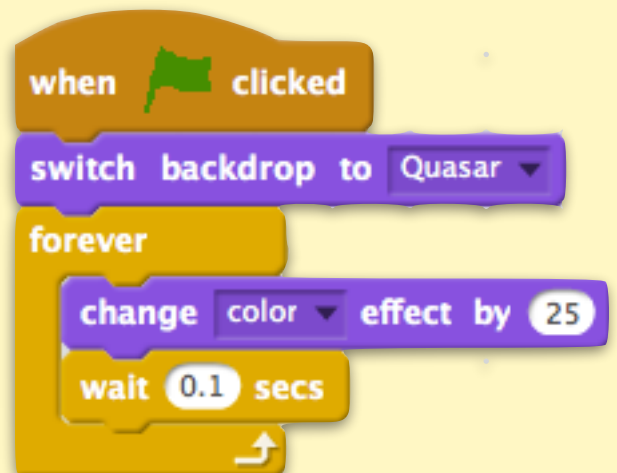
“when  clicked”

“switch backdrop to Quasar”

“forever”

 “change color effect by 25”

 “wait 0.1 secs”



Program the Stage sound effect

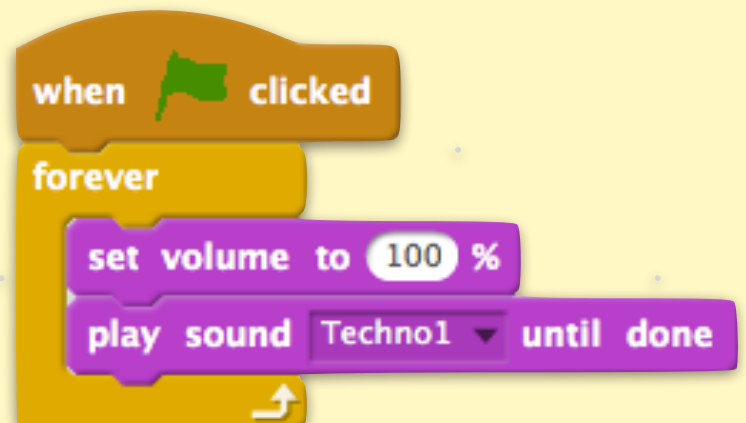
10. Create the following stack:

“when  clicked”

“forever”

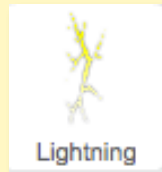
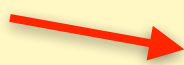
 “set volume to 100 %”

 “play sound Techno 1 until done”



Program the lightning sound effect

11. Click the "lightning" sprite




12. Create the following stack:

"when  clicked"
"wait 1 sec"
"forever"
"if" "touching Astro-Cat?" "then"
"set volume to 30%"
"play sound Thunder until done"



Program the lightning to randomly grow or shrink

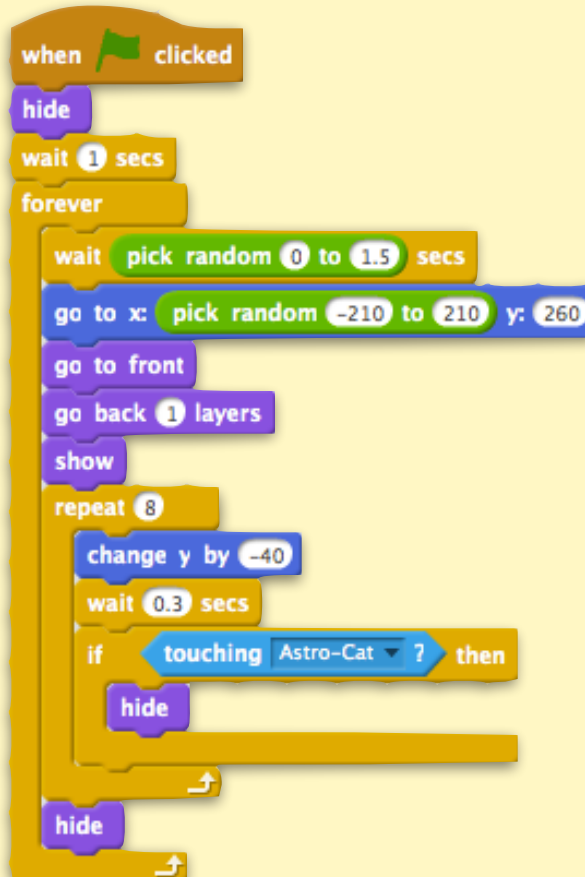
13. Create the following stack:

"when  clicked"
"forever"
"set size to pick random 30 to 60 %"



Program the lightning movement & lightning disappearing after touching Scratchy

14. Create the following stack:



Program the "String" sprite to change color

15. Click the "String" sprite



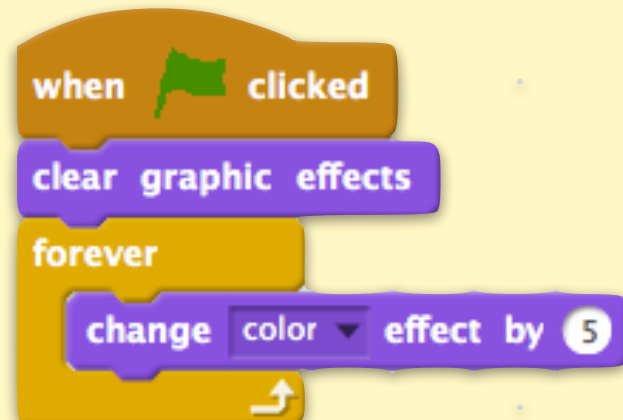
16. Create the following stack:

"when  clicked"

"clear graphic effects"

"forever"

"change color effect by 5"



Program the "String" sprite to change visual effect

17. Create the following stack:

"when  clicked"

"forever"

"change fisheye effect by 30"

"wait 0.1 secs"

"change fisheye effect by 30"

"wait 0.1 secs"

"change fisheye effect by -30"

"wait 0.1 secs"

"change fisheye effect by -30"

"wait 0.1 secs"



Time for a BIG script for the String Sprite !!!

18. Create the **Start** for the big script

```
when clicked
  switch costume to String
  hide
  wait 1 secs
```

This is how many String Sprites will appear.

This will be the String Sprites appear in random locations.

This controls how the String sprites will spin and move.

When Scratchy touches the String Sprite, he will say, "Got it!" and a sound will play.

```
repeat 7
  go to x: pick random 210 to -210 y: pick random 150 to -150
  show
  repeat until touching Astro-Cat
    change y by 1
    turn 5 degrees
    wait 0.1 secs
    change y by -1
    turn 5 degrees
    wait 0.1 secs
  say Got it!
  set volume to 30 %
  play sound Humming
  wait 0.2 secs
  say 
  hide
  wait 0.3 secs
```

20. Create the **End** for the big script

```
go to x: 0 y: 0
point in direction 90
switch costume to Monolith
go to front
go back 2 layers
show
say Stargate opened! for 2 secs
stop all
```

Double Check to Make sure your BIG String script looks like:

```
when clicked
  switch costume to String
  hide
  wait 1 secs
  repeat 7
    go to x: pick random 210 to -210 y: pick random 150 to -150
    show
    repeat until touching Astro-Cal
      change y by 1
      turn 5 degrees
      wait 0.1 secs
      change y by -1
      turn 5 degrees
      wait 0.1 secs
    say Got it!
    set volume to 30 %
    play sound Humming
    wait 0.2 secs
    say 
    hide
    wait 0.3 secs
  go to x: 0 y: 0
  point in direction 90
  switch costume to Monolith
  go to front
  go back 2 layers
  show
  say Starate opened for 2 secs
  stop all
```



**** Advance ****

Make the game more difficult by adding more lightning bolts
or
Replace the lightning sprite with a space monster sprite