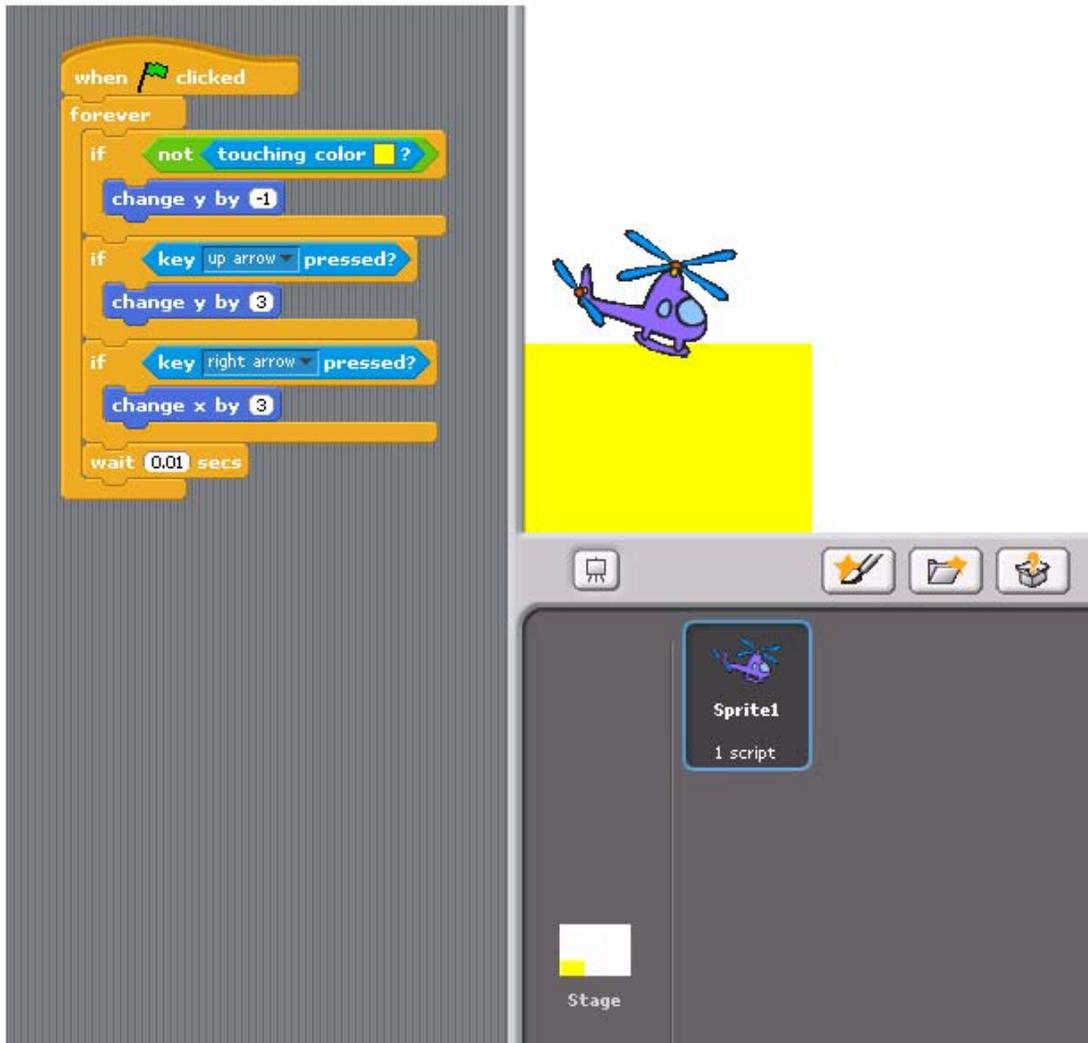


# Programming with Scratch Copter Game Alg-Geo

(adapted from Meridian Moodle: <http://www.meridianmoodle.com/mod/resource/view.php?id=756>)



**Copter Flight Code:**

## Copter Game with One Level:

The image displays the Scratch environment for a Copter Game. On the left, the code editor shows the following script:

```
when clicked
go to x: -180 y: -40
repeat until touching color [red] ?
  if not touching color [yellow] ?
    change y by -1
  if key [up arrow] pressed?
    change y by 3
  if key [right arrow] pressed?
    change x by 3
  if x position > 230
    say [well done]
    stop script
wait 0.01 secs
broadcast [gameover]
stop script
```

On the right, the stage shows a purple helicopter sprite on a yellow ground. The stage background is white with a dark red top and bottom border. The mouse coordinates are -437, 67. The sprite list shows 'Sprite1' with 1 script and 'Sprite2' with 2 scripts. The stage is labeled 'Stage'.

## Adding a Level:

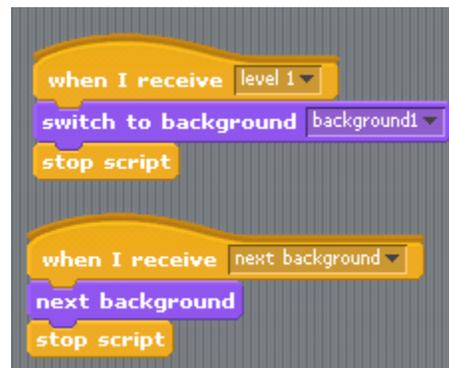
### Copter Script



```
when clicked
broadcast level 1
go to x: -167 y: -24
repeat until touching color ?
if not touching color ?
change y by -1
if key up arrow pressed?
change y by 3
if key right arrow pressed?
change x by 3
if touching edge ?
broadcast next background
set x to -170
wait 0.01 secs
```

The Copter Script is a Scratch script that starts with a 'when clicked' event. It broadcasts a message 'level 1' and moves the copter to x: -167 and y: -24. It then enters a 'repeat until' loop that continues as long as the copter is not touching a specific color. Inside this loop, there are three conditional checks: if the copter is not touching the color, it moves down by 1 unit; if the up arrow key is pressed, it moves up by 3 units; if the right arrow key is pressed, it moves right by 3 units. After the loop, it checks if the copter is touching the right edge. If so, it broadcasts a message 'next background', sets the x position to -170, and waits for 0.01 seconds.

### Background Script



```
when I receive level 1
switch to background background1
stop script

when I receive next background
next background
stop script
```

The Background Script consists of two separate scripts. The first script is triggered when the 'level 1' message is received, and it switches the background to 'background1' before stopping. The second script is triggered when the 'next background' message is received, and it switches to the next background before stopping.