

8.3 Avoid the Aliens

Intro



While Mike's collecting candies, the aliens showed up and attacked the tribe of the aborigines. Mike now needs to avoid the UFO and flies Mike No.1 to the tribe.

Task

1. Enable Mike control the moving of Mike No.1 via video.

Start Learning

1. Video Interaction

Block	Explanation	Example
	When the direction of the sprite in the video is Up and Right, then positive value; Down and Left, negative.	

2. Mike No.1 Moves According to the Direction in the Video

Sprite	Animation Scene	Scratch Script
Mike No.1	<p>The spaceship will move to the starting point and appear on the stage when the green flag is clicked;</p> <p>Turn on the video, set the transparency at 50;</p> <p>When the motion direction value is > 0, change x by 3;</p> <p>When the motion direction value is < 0, change x by -3</p> <p>Repeat;</p> <p>My plan _____</p>	<p>Event: When the Green Flag is Clicked</p> <p>Looks: Show</p> <p>Motion: Coordinate</p> <p>Sensing: Turn video on, Set transparency, Video direction on the sprite</p> <p>Operator: $>$, $<$</p> <p>Control: If...then..., Repeat</p> <p>My _____ script</p>


☆ Explore

Create a script according to the designed animation scene.

Achieve

Import backdrop "attack.png", and sprite "UFO.png", "Mike in Spaceship 2.png".

Sprite	Program	Effect
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 <p>Mike in Spaceship 2</p>	<pre> when clicked go to x: 0 y: -120 turn video on set video transparency to 60 % forever if video direction on this sprite > 0 then change x by 3 else change x by -3 </pre>	
 <p>UFO</p>	<pre> when I start as a clone show go to x: pick random -200 to 200 y: 140 forever change y by pick random -3 to -10 if touching edge ? then delete this clone when I start as a clone forever if touching Mike in Spaceship 2 ? then stop all when clicked hide forever wait pick random 1 to 4 secs create clone of myself </pre>	

Tips

Edges refer to the 4 sides of the stage. If the UFO touches the top edge, it will hide directly instead of moving downwards. Thus we should not put the aliens close to the top edge at the beginning of the script.

Homework

1. Increase the frequency of the UFO.
2. Try other script (effect) for scene of the Spaceship bumping into the UFO.

What You've Learnt?

Adventure Diary (Self-Assessment)

Gas Station (Other's Assessment)