

Aliens are Coming

Let the Invasion Begin!

Play Will's version:
[click](#)

Today's Game

Challenge: Build a game with an airplane that drops missiles on the aliens. (Or, a bird that poops on targets, you decide)

Features:

- A plane that flies automatically.
- An enemy that uses Custom Movement behavior.
- Drop missiles.
- Blow things up.

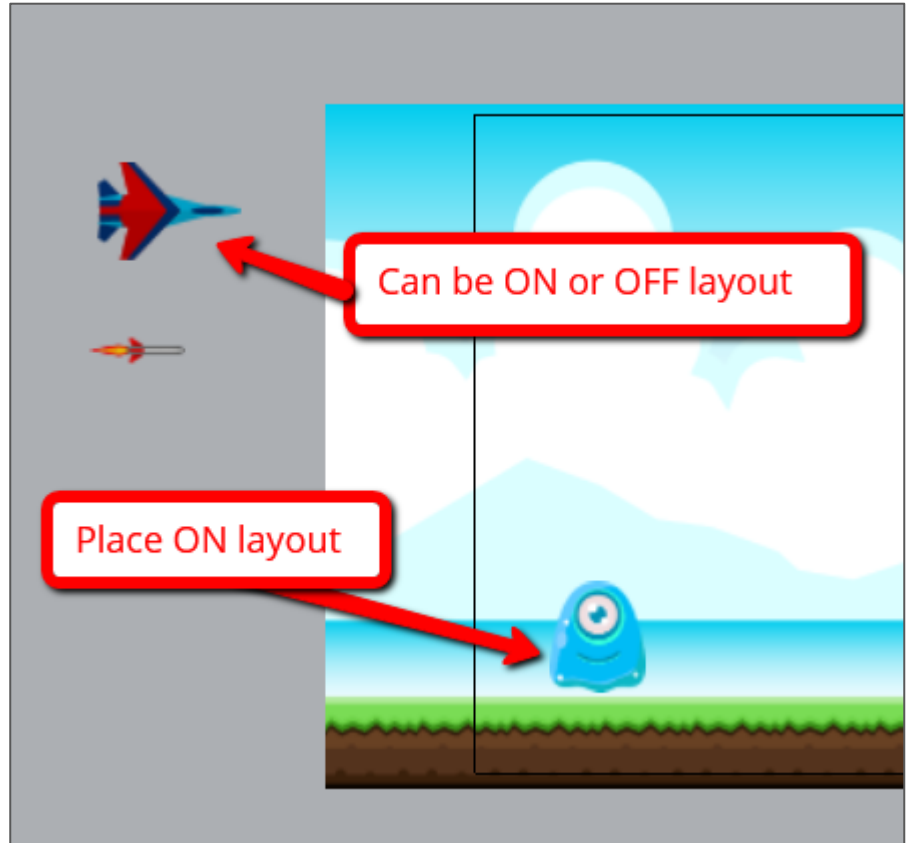
Walkthrough Video (Just, wow, so good)



<https://youtu.be/-BnFoxywppg>

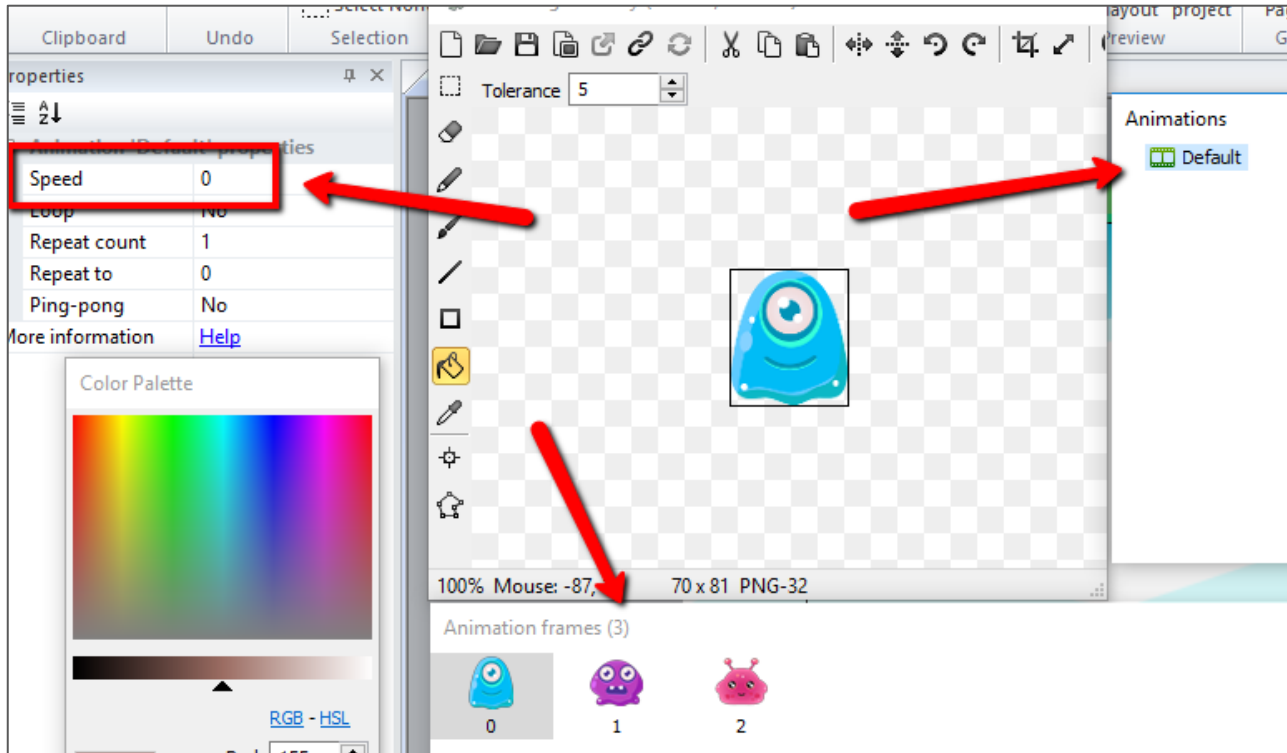
Setup Layout & Sprites

- Layout size (854, 480)
 - Create a background
 - Create plane (or bird)
 - Create enemy (or target)
 - Create missile (or poo)
-
- Name Each Sprite
 - Plane must face right



My Enemy Sprite

- Use multiple enemies, one in each frame
- Set the “Default” animation “speed” to “0”




Behaviors

- Plane gets:
 - Bullet, Wrap
- Enemy gets:
 - CustomMovement
- Missile gets:
 - Physics












CustomMovement

- Set “enemy” CustomMovement property:
 - **“Stepping mode”** to **“Linear”**
- Add the following Events
 - Initializes CustomMovement
 - Changes directions

1	 System	On start of layout	 enemy	Set  CustomMovement Horizontal speed to 300
				Add action
2	 System	Every random(1,6) seconds	 enemy	Reverse  CustomMovement (Horizontally)
				Add action
3	 enemy	Is outside layout	 enemy	Reverse  CustomMovement (Horizontally)
				Add action

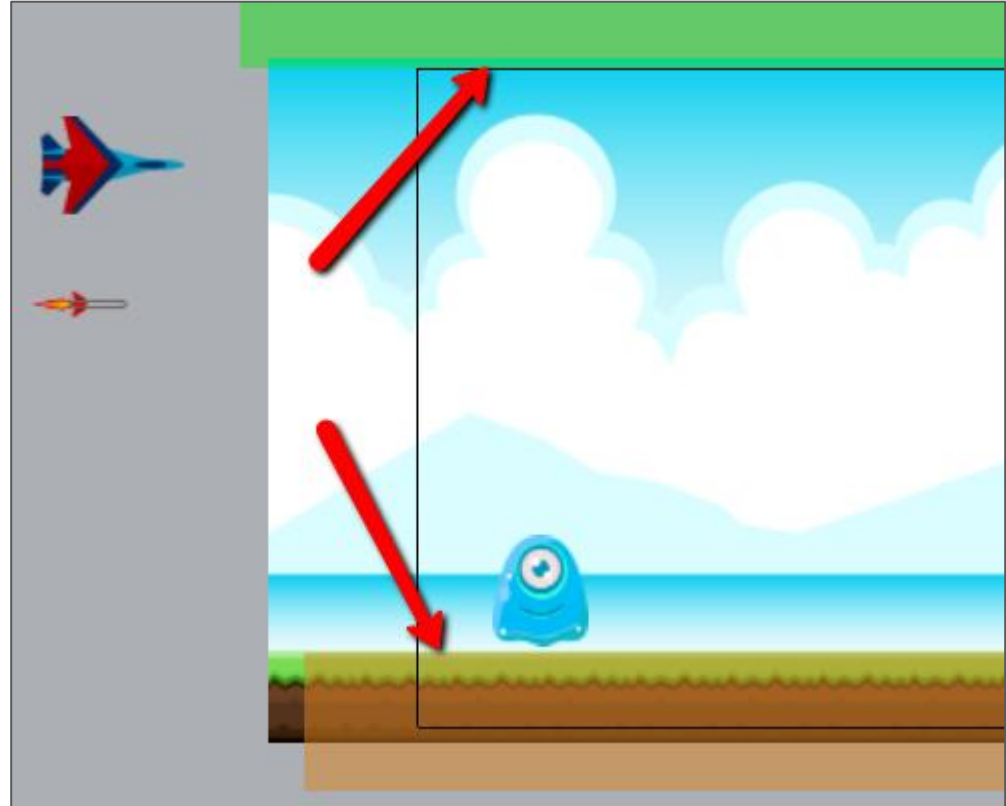
Keyboard Actions

- Add “Keyboard” object
- Use the “space” to drop a missile
- Use the “up” / “down” keys to adjust the angle
- TEST

4	 Keybo...	On Space pressed	 plane	Spawn  missile on layer 0 (<i>image point 0</i>)
			 missile	Apply  Physics force 25 at angle <code>plane.Angle</code> at image point 0
			Add action	
5	 Keybo...	Up arrow is down	 plane	Set  Bullet angle of motion to <code>plane.Bullet.AngleOfMotion-1</code> degrees
			Add action	
6	 Keybo...	Down arrow is down	 plane	Set  Bullet angle of motion to <code>plane.Bullet.AngleOfMotion+1</code> degrees
			Add action	







Create a “ground” & “sky”

- Both get “Initial visibility” to “invisible”
- “sky” gets the “solid” behavior
- IMPORTANT: Set “plane” bullet behavior property “Bounce off solids” to “yes”



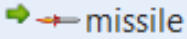









Missile hitting ground

- Create a “particles”
- When missile hits the ground, create particles & delete missile
- (My particle is just two color sprite, matching the ground color)

7	 missile	On collision with  ground	 missile	Spawn  Particles on layer 0 (<i>image point 0</i>)
			 missile	Destroy
			 Particl...	Set angle to 270 degrees
			Add action	

Missile hits Enemy

- Create another "particles"
- Randomly select which image frame
- Order of these events is important

8	 missile	On collision with  enemy	 enemy	Spawn  Particles2 on layer 0 (<i>image point 0</i>)
			 Particl...	Set angle to 270 degrees
			 enemy	Destroy
			 System	Create object  enemy on layer 0 at (90, 380)
			 enemy	Set  CustomMovement Horizontal speed to 300
			 enemy	Set animation frame to random(0,3)
			 System	Add 1 to score
			Add action	

Extra Stuff

- Add objects that the plane cannot hit
- Add multiple enemies
- Setup obstacles to fly around
- Create multiple planes, each with their own control