Gaming Bootcamp

of South Dakota

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# **Present Ninja**

Let's explode some presents!



## Play the game we are building: click

### Today's Game



**Challenge:** Build a game similar to fruit ninja, only with Christmas presents!

**Goal:** Keep slicing presents with the mouse.

#### Features:

- Learn to automatically apply a *Physics* force
- Learn a simple way to keep a Score
- Learn about the *Random* function

### Wow - that's a good video!

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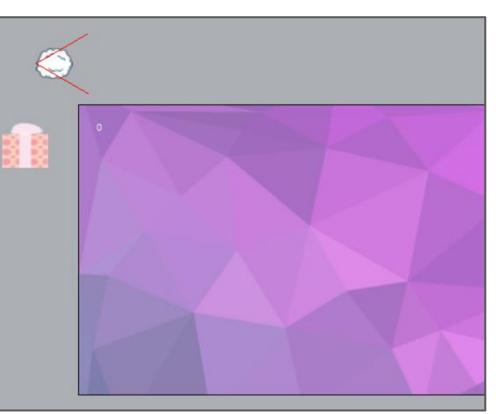
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#### https://youtu.be/YzE0a8AjtuM

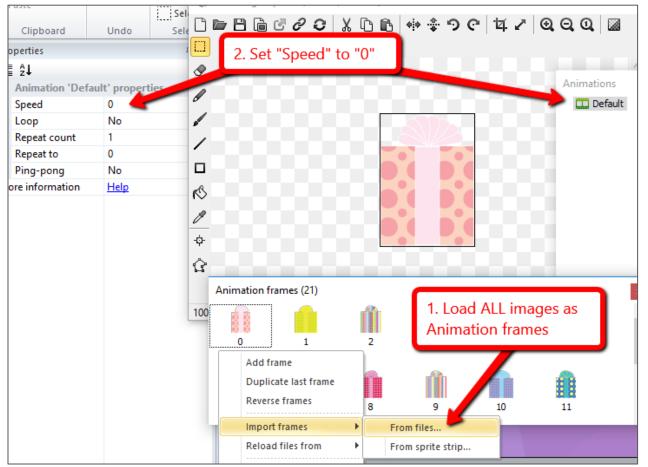
### Layout Screen

- Set Layout Size to <u>854,480</u>
- Pick and load a background
- Insert a *Particles* for "<u>explosion</u>"
- Insert a *Text* for the count
- Insert a Sprite for "present"
  - (more on next slide)



### Load Present Frames

- Load ALL present images as frames
- Delete BLANK
  frame
- Set "**Speed**" to "<u>0</u>"
- Add "*Physics*" to the present



### New Things!

• Event "*Every X seconds*" repeats actions over & over



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• "*random(lower #, upper #)*" function can be used for a number

Parameters for System: Every X seconds	
Specify time, in seconds, between running the ac framerate (actions will not run more than once pe	
Interval (seconds) random(0.5,2)	
Cancel <u>Help on expressions</u>	Back Done

### Launch Presents

- Event to launch from LEFT side of the screen
- <u>**Two**</u>Action:
  - "Create Object"

General	
	All Control Inventor
🛱 Create object	Go to layout
🚭 Go to layout (by name)	🙀 Go to next/previous layout
🚭 Restart layout	🙀 Set group active
🙀 Sort Z order	🙀 Stop loop

Object to create	present
Layer	0
x	0
Y	480

#### • Present -> Apply Impulse at Angle

ce at angle oulse oulse towards position

The impulse to apply.		
Impulse	random(25,45)	
Angle	-70	
Image point	0	
		1

### Launch Presents



- Do the same to launch for the **<u>RIGHT</u>** side of the screen
- *Create Object:* values are X = <u>854</u> & Y = <u>480</u>
- Apply Pulse at Angle: value is -110

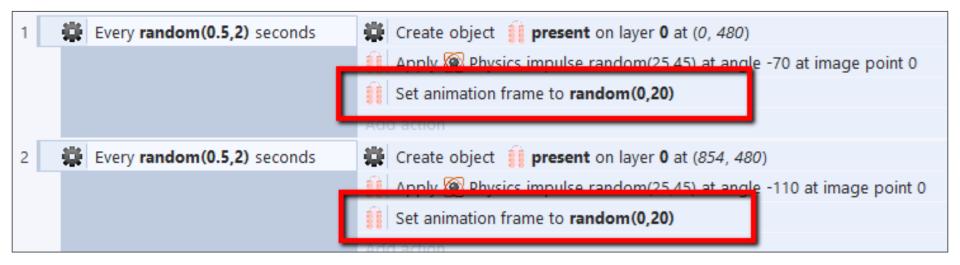
#### **Final Events**

1	Every random(0.5,2) seconds	🗱 Create object 🏢 present on layer <b>0</b> at ( <i>0</i> , <i>480</i> )
		Apply 🛞 Physics impulse random(25,45) at angle -70 at image point 0
		Add action
2	Every random(0.5,2) seconds	🗱 Create object \min present on layer 0 at (854, 480)
		Apply 🛞 Physics impulse random(25,45) at angle -110 at image point 0
_		Add action

### Randomly Select a Frame

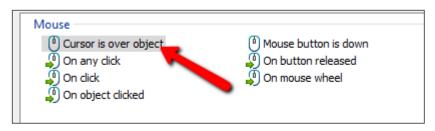


- Use the "*Random*" method to pick an <u>animation frame</u>
- There are <u>**21**</u> frames (0 through 20)
- Do on BOTH the left & the right



### Use Mouse To Slice

- Add "Mouse" object to your game
- Use "*Mouse*" -> "<u>Cursor is over object</u>"



- Use "Add another condition"
  - "Mouse" -> "Mouse button is down"



### Mouse Action

- Adjust "*Particle*" properties (we've done this many times before)
- Add *actions* to mouse events
  - Spawn the particles
  - Set angle to -90 (pointing up)
  - Set the spray cone to a random angle between 90,180 degrees

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• Destroy the present

		Add action
2	🕘 Cursor is over 👖 present	Spawn () <b>explosion</b> on layer <b>0</b> (image point 0)
3	Left button is down	Set angle to -90 degrees
		Set spray cone to random(90,180) degrees
		Destroy
		Add action

### Clean Up the Presents you Miss

- They will fall forever literally!
- Add an event to **Destroy** presents if they fall below the layout
  - Cannot use "Destroy Outside of Layout" because we are launching them above the layout.



### EXTRA: Add a Counter

- Set initial *Text* to "<u>0</u>"
- Add Action to the Mouse event
  - "Set Text" Action
  - Text value: int(Text.Text)+1
- Explain:
  - Convert the text value to a number -- int(Text.Text)
  - Add 1 to that value -- <u>+1</u>

Enter the text to set the object's content to.		
Text int(Text.Text)+1		
Cancel Help on expressions	Back Done	

### Additional Challenges

- Add a bomb that you should NOT slice
- Keep track of the MISSED presents
- Adjust width & height of the boxes with Random values
- Adjust the speed of the boxes with Random values