# **Programming Final Project**

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**Bertus Workel arts/crafts + costume store.** Returning elements:

Skull, Ghost, Witch, Spiders and curtain.

- pumpkin goes on/off when clicked on
- spiders move up and down when mouse is over
- witch puts potion in pot and makes explosion
- skulls can rotate and fall back to original position
- ghost starts shaking when the mouse is over
- \_spiders on the ground will get scared and move down when the explosion is happening.

## **Ghost**

update: creates 2 floats with random numbers and adds them to the x and y coordinates to get the shaky effect if the isOver is true.

checkIfOver: checks if the input is over the ghost.

## Curtain

update: First looks if the curtain should open/close and then update xPos accordingly

boundaries: Check if the curtain is closed/opened, dont go over the closing/opening boundary.

#### Pumpkin

display: Displays pumpkin and an ellipse(AKA Light) if the mouse is pressed(Sets this to true in the mousePressed method in the main tab.

isOver: takes input and checks if the input is over the pumpkin image

#### Skull

update: Checks rotation and if it's rotated to the left it will fall back to the right and vice versa.

rotateFacing: draws imaginary line between input and skull location and calculates the angle in relation to the x-axis. This makes the skull point to the mouse.

### **SpiderA**

isOver: takes input and checks if the input is over the spider image

update: updates the position if mouselsOver is true. Moves the spider up if true and moves it back down slowly once it isn't true and Spider isn't on the original Y position.

# **SpiderB**

display: If the spider is actie it will display

update: if the explosion happens move it down, if the spider is active move it to the left and if it isn't active move it to the left of the screen so it can start walking again.

isActive: checks if the spider is out of the screen, except on the under side, since this is possible if they get scared from the explosion.

#### Witch

display: normal display and displays the explosion if this is triggered(using push-pop)

update: If the potion is in the pot the explosion is triggered and once this is triggered the explosion scale will be increased to get the explosion effect once the scale is higher than 3 the explosion will stop and scale will be reset (done in the checkExplosion method). In addition to this update makes the witch her arm wiggle up or down and changes the direction if it's turned too far.

checkDirection: Check the amount of rotation and outputs true or false so the update method reckons which direction it should go to.

checkExplosion: checks if the potion is in the pot and will put the triggerExplosion to true. If the scale of the explosion is too big it will be put at false again.

