

CompSci 94

KeyPressListener, Collision Listeners

October 22, 2020



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Announcements

- Assignment 5 is due Thursday, October 29
- Watch videos and online quiz for Thursday

WOTO-1 Collisions and KeyPress

<http://bit.ly/94f20-1022-1>



Q1: How do I get the hare to turn around?

The image shows a snippet of Scratch code. At the top, there is a block labeled 'this' with a dropdown menu showing 'addKeyPressListener' and 'add detail'. Below this, the text 'declare procedure keyPressed' is followed by three blocks: 'event isLetter', 'event isDigit', and 'event getKey'. Underneath these, the text 'do in order' is followed by a large block containing 'this.hare' with a dropdown menu, 'turn', 'RIGHT' with a dropdown menu, a comma, '1.0' with a dropdown menu, and 'add detail' with a dropdown menu.

```
this addKeyPressListener add detail  
  
declare procedure keyPressed event isLetter event isDigit event getKey  
do in order  
  this.hare turn RIGHT , 1.0 add detail
```

Q2: What happens if I press letter A?
If I press the letter T?



Q3: What happens if press letter A?

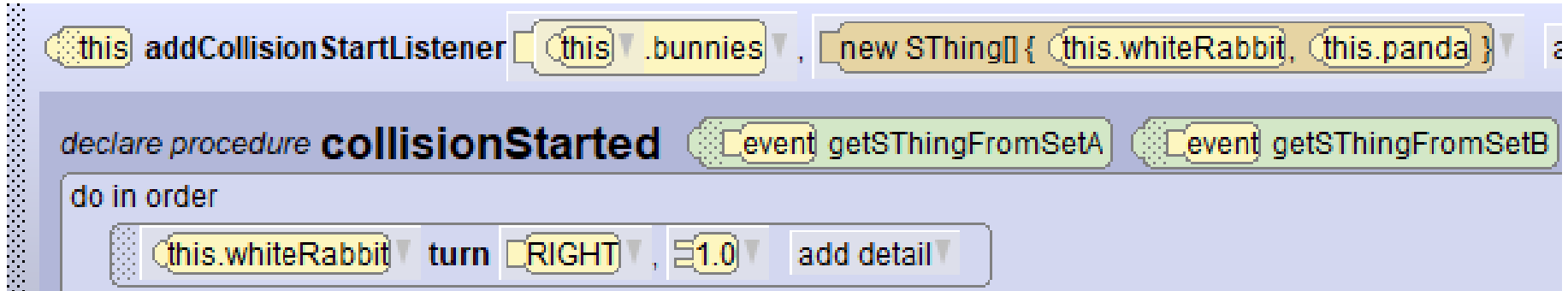
If press letter T?



Q4: What does Combine and Fire_Multiple do?



Q5: What happens when ...



- a) panda collides with a bunny?
- b) whiteRabbit collides with a bunny?

Note: bunnies is an array of bunnies

Q6: What happens when

- a) panda collides with a bunny?
- b) whiteRabbit collides with a bunny?
- c) pig collides with a bunny?
- d) whiteRabbit collides with panda?

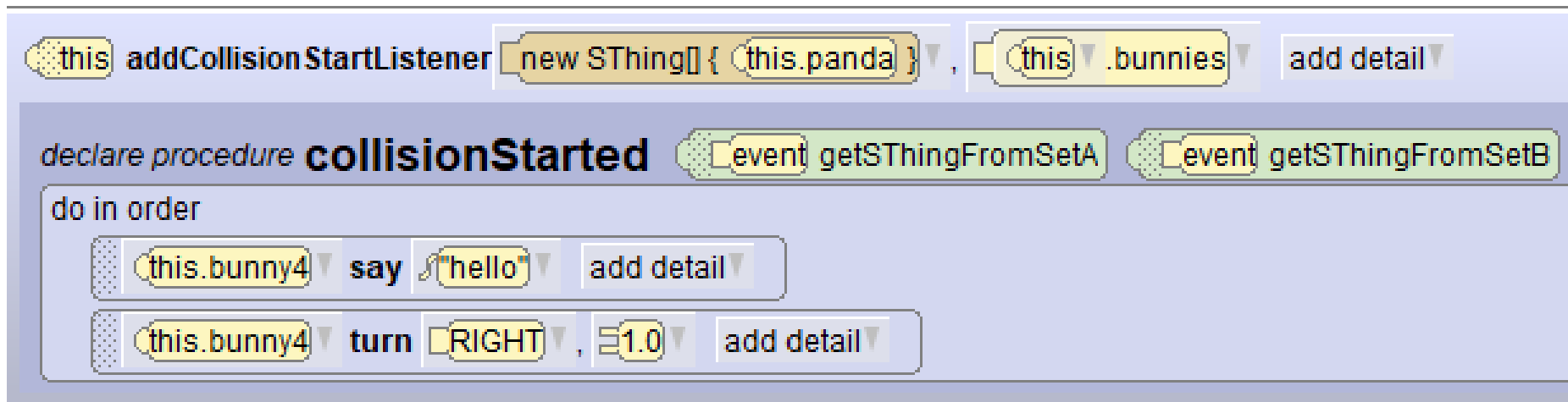


The image shows a Scratch code snippet. At the top, there is a line of code: `this addCollisionStartListener` block with a `this.bunnies` block as an argument, followed by a `new SThing[] { this.whiteRabbit, this.panda }` block. Below this, there is a `declare procedure collisionStarted` block. Inside this procedure, there is a `do in order` block. The first block inside `do in order` is an `if` block with the condition `event getSThingFromSetB == this.whiteRabbit` and the label `is true then`. Inside this `if` block, there is a `this.whiteRabbit say "hello" add detail` block. Below this is an `else` block. Inside the `else` block, there is another `if` block with the condition `event getSThingFromSetB == this.panda` and the label `is true then`. Inside this second `if` block, there is a `this.panda say "hello" add detail` block. Below this is another `else` block, which contains a `this.pig say "hello" add detail` block.

```
this addCollisionStartListener this.bunnies , new SThing[] { this.whiteRabbit, this.panda }  
  
declare procedure collisionStarted event getSThingFromSetA event getSThingFromSetB  
do in order  
  if event getSThingFromSetB == this.whiteRabbit is true then  
    this.whiteRabbit say "hello" add detail  
  else  
    if event getSThingFromSetB == this.panda is true then  
      this.panda say "hello" add detail  
    else  
      this.pig say "hello" add detail
```

Q7: Clicking on an array object

- There is an array of bunnies. When a bunny collides with panda, you want the bunny that collided with the panda to say hello and turn around once.
- Why doesn't this code work?



Class Today

- A game with collisions

