

Pong Debug Challenges

Directions: Debug this version of the Pong app.

To get started, [open App Inventor with the Pong With Bugs template](#). Then, work with a partner and use the debugging strategies.

- There are **at least three errors** in this version of the Pong game.
- Find the errors and fix them
- Test the app to make sure it works!

The image displays several Scratch code blocks for a Pong game, organized into five groups. The first group contains an 'initialize global' block for 'score' set to 0. The second group is a 'when Ball1 .CollidedWith other' event, which calls 'updateScore' with 'newscore' calculated as 'get global score' plus 1, and then sets 'Ball1 . Heading' to '360 - Ball1 . Heading'. The third group is a 'when ButtonStart .Click' event, which sets 'Ball1 . Enabled' to true, 'Ball1 . Interval' to 10, 'Ball1 . Heading' to a random integer from 0 to 180, 'Ball1 . Speed' to 5, calls 'Ball1 . MoveTo' with x and y coordinates of 'Ball1 . Radius', and calls 'updateScore' with 'newscore' set to 0. The fourth group is a 'when ImageSprite1 .Dragged' event, which calls 'ImageSprite1 . MoveTo' with x set to 'get currentX' and y set to 'ImageSprite1 . Y'. The fifth group is a 'when ButtonReset .Click' event, which calls 'Ball1 . MoveTo' with x set to 'Canvas1 . Width / 2' and y set to 'Ball1 . Radius', and calls 'updateScore' with 'newscore' set to 0. A sixth group is a 'when Ball1 .EdgeReached edge' event, which uses an 'if' block: if 'get edge' is greater than or equal to -1, it sets 'Ball1 . Enabled' to false and 'LabelScore . Text' to 'Game Over!'; otherwise, it calls 'Ball1 . Bounce' with 'edge' set to 'get edge'.

```
initialize global score to 0
```

```
when Ball1 .CollidedWith other
do
  call updateScore
  newscore = get global score + 1
  set Ball1 . Heading to 360 - Ball1 . Heading
```

```
when ButtonStart .Click
do
  set Ball1 . Enabled to true
  set Ball1 . Interval to 10
  set Ball1 . Heading to random integer from 0 to 180
  set Ball1 . Speed to 5
  call Ball1 . MoveTo
  x = Ball1 . Radius
  y = Ball1 . Radius
  call updateScore
  newscore = 0
```

```
when ImageSprite1 .Dragged
do
  call ImageSprite1 . MoveTo
  x = get currentX
  y = ImageSprite1 . Y
```

```
when ButtonReset .Click
do
  call Ball1 . MoveTo
  x = Canvas1 . Width / 2
  y = Ball1 . Radius
  call updateScore
  newscore = 0
```

```
when Ball1 .EdgeReached edge
do
  if get edge >= -1
  then
    set Ball1 . Enabled to false
    set LabelScore . Text to "Game Over!"
  else
    call Ball1 . Bounce
    edge = get edge
```