



## PONG – Correct “the ball gets stuck” bug

If the ball is caught directly underneath or on top of a paddle it will bounce up and down indefinitely. The only way to continue is to stop the game and restart it.

This could be solved in a number of ways and places. It is usually the case with software, that there are many possible ways to solve a problem. The following instructions show just one way. I decided that a ball travelling straight up or down, when hitting the top or bottom wall should not bounce straight back. So look for the following section of code (use CTRL+F):

```
# make the values smaller so it's not too fast  
deltaX = deltaX / 12  
deltaY = deltaY / 12
```

And add the extra lines (highlighted) so it appears as follows:

```
# make the values smaller so it's not too fast  
deltaX = deltaX / 12  
deltaY = deltaY / 12  
  
# fix the stuck ball problem  
if deltaX == 0:  
    deltaX = self.vector[0]
```

These extra lines determine when the ball has hit exactly on the top or bottom of the bat. And then make sure that the X direction is left as it was before, so it bounces back.

Run the game and give it a try (F5)