

# Chapter 14: Using tkinter for Better Graphics

Wednesday, March 7, 2018

11:36 AM

At the moment, our game is a bit simple. There's a lot you could change to create a more professional game. Try enhancing your code in the following ways to make it more interesting, and then check your answers at <http://python-for-kids.com/>.

## #1: Delay the Game start

Our game starts a bit quickly, and you need to click the canvas before it will recognize pressing the left and right arrow keys on your keyboard. Can you add a delay to the start of the game in order to give the player enough time to click the canvas? Or even better, can you add an event binding for a mouse click, which starts the game only then?

Hint 1: You've already added event bindings to the Paddle class, so that might be a good place to start.

Hint 2: The event binding for the left mouse button is the string '<Button-1>'.

## #2: A Proper "Game over"

Everything just freezes when the game ends, and that's not very player-friendly. Try adding the text "Game Over" when the ball hits the bottom of the screen. You can use the `create_text` function, but you might also find the named parameter `state` useful (it takes values such as `normal` and `hidden`). Have a look at `itemconfig` in "More Ways to Use the Identifier" on page 188. As an additional challenge, add a delay so that the text doesn't appear right away.

## #3: Accelerate the Ball

If you play tennis, you know that when a ball hits your racket, it sometimes flies away faster than the speed at which it arrived, depending on how hard you swing. The ball in our game goes at the same speed, whether or not the paddle is moving. Try changing the program so that the paddle's speed is

passed on to the speed of the ball.

#### #4: Record the Player's score

How about recording the score? Every time the ball hits the paddle, the score should increase. Try displaying the score at the top-right corner of the canvas. You might want to look back at `itemconfig` in “More Ways to Use the Identifier” on page 188 for a hint.