

# PyGame Tractor Pong Tutorial - Part 5

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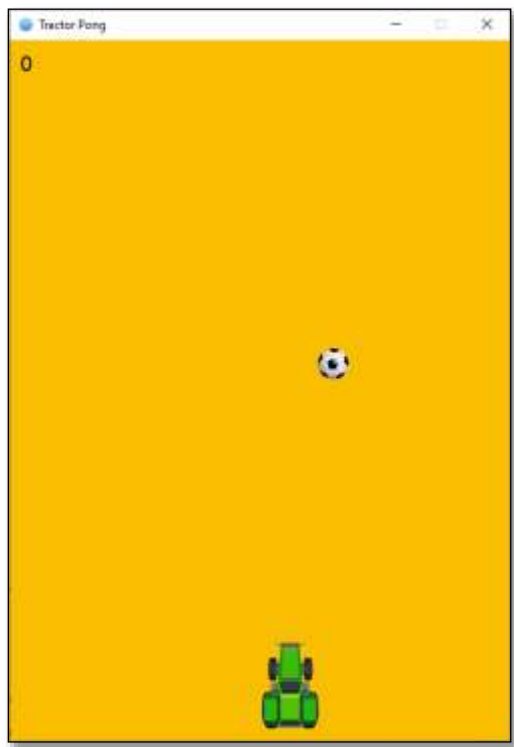
Time required: 30 minutes

## Preview of the Game

Atari. - the year: 1973 - the date: - November 29<sup>th</sup> -

That game is called Pong . . . . Then there was Tractor Pong.

[Tractor Pong Demo Video](#)



## Move the Tractor

It's time to move it, move it, move the tractor.

1. Save **tractor\_pong\_4.py** as **tractor\_pong\_5.py**
2. Add tractor speed to the `load_assets` method.

```
37 # ----- LOAD ASSETS ----- #
38 def load_assets(self):
39     # Load the images from the file system into a variable
40     ball = pygame.image.load("assets/soccer_ball.png")
41     # Convert the image to a PyGame surface
42     # This is done to speed up the game
43     self.ball = ball.convert_alpha()
44
45     tractor = pygame.image.load("assets/green_tractor.png")
46     self.tractor = tractor.convert_alpha()
47
48     # Create a rectangle the same size as the image
49     # rect is used to set the location of the image
50     self.ball_rect = self.ball.get_rect()
51     self.tractor_rect = self.tractor.get_rect()
52
53     # Initial position of the ball rectangle x random, y/top = 10
54     self.set_ball_location()
55     self.ball_rect.y = 10
56
57     # Ball speed in pixels for x, y
58     self.set_ball_direction()
59     self.speed_y = 3
60
61     # Initial location of the tractor
62     self.tractor_rect.left = WIDTH // 2
63     self.tractor_rect.top = HEIGHT - 90
64
65     # Speed in pixels for the tractor
66     self.tractor_speed = 4
```

Add the `update_tractor` method. This also includes exiting the game with the Esc key.

```

105 # ----- UPDATE TRACTOR ----- #
106 def update_tractor(self):
107     # Capture key pressed events into a list
108     keys = pygame.key.get_pressed()
109
110     # Check if the left arrow key is pressed
111     if keys[pygame.K_LEFT]:
112         # If the tractor is within the playing surface, move it
113         if self.tractor_rect.left > 0:
114             # Move tractor rect to the left by subtracting its speed
115             self.tractor_rect.left -= self.tractor_speed
116
117     # Check if the right arrow key is pressed
118     if keys[pygame.K_RIGHT]:
119         # If the tractor is within the playing surface, move it
120         if self.tractor_rect.right < WIDTH:
121             # Move tractor rect to the right by adding its speed
122             self.tractor_rect.left += self.tractor_speed
123
124     # The Esc key will quit the game
125     if keys[pygame.K_ESCAPE]:
126         # Quit Pygame
127         pygame.quit()
128         # Exit Python
129         exit()

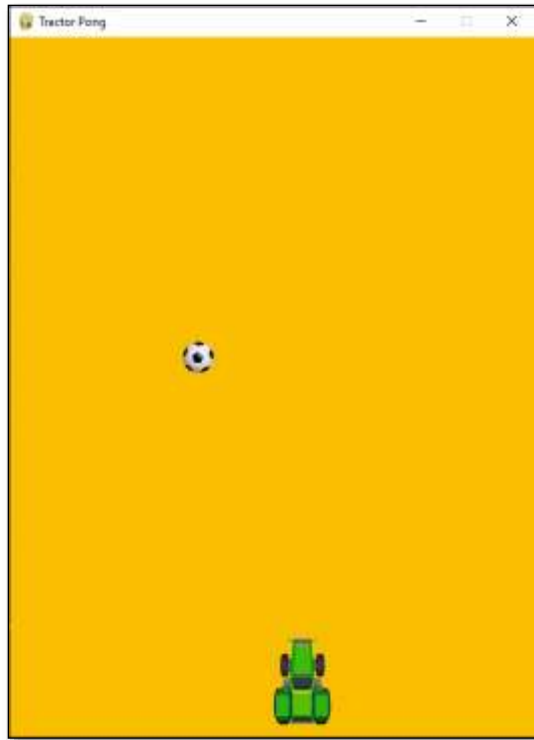
```

Add the update\_tractor method to the game loop.

```

63 # ----- GAME LOOP -----#
64 def game_loop(self):
65     """Infinite game loop"""
66     while True:
67
68         self.check_events()
69         self.update_tractor()
70         self.update_ball()
71         self.draw()
72
73         # Cap game speed at 60 frames per second
74         self.clock.tick(60)

```



The tractor is under control.

Time for collisions.

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### Assignment Submission

1. Attach a screenshot showing the operation of the program.
2. Zip up the program files folder and submit in Blackboard.