

PyGame Tractor Pong Tutorial - Part 5

Contents

PyGame Tractor Pong Tutorial - Part 5	1
Preview of the Game	1
Move the Tractor.....	2
Assignment Submission.....	4

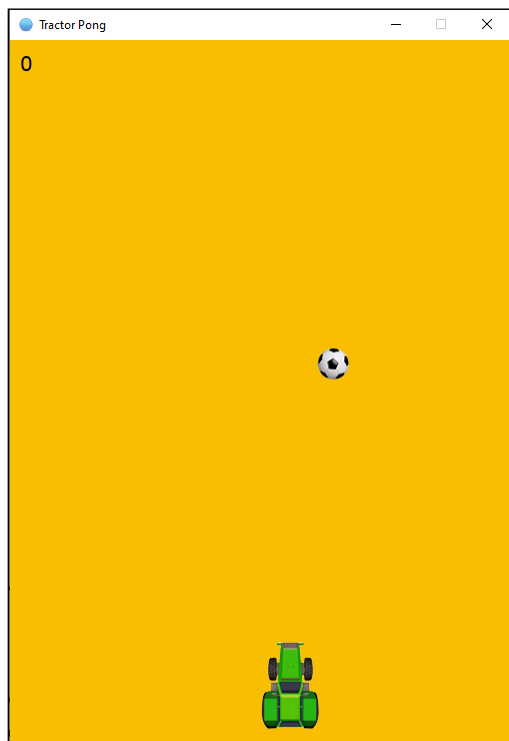
Time required: 30 minutes

Preview of the Game

Atari. - the year: 1973 - the date: - November 29th -

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.

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

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)

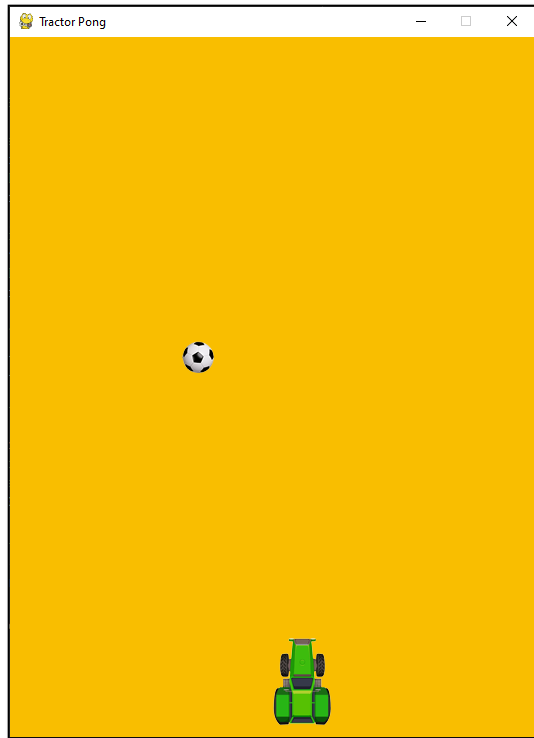
```

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

```

113 # ----- UPDATE TRACTOR -----#
114 def update_tractor(self):
115     # Capture key pressed events into a list
116     keys = pygame.key.get_pressed()
117
118     # Check if the left arrow key is pressed
119     if keys[pygame.K_LEFT]:
120         # Is the tractor to the right of the window
121         if self.tractor_rect.left > 0:
122             # Move tractor rectangle to the left by subtracting its speed
123             self.tractor_rect.left -= self.tractor_speed
124
125     # Check if the right arrow key is pressed
126     if keys[pygame.K_RIGHT]:
127         # Is the tractor to the left of the right side
128         if self.tractor_rect.right < config.WIDTH:
129             # Move tractor rectangle to the right by adding its speed
130             self.tractor_rect.left += self.tractor_speed
131
132     # The Esc key will quit the game
133     if keys[pygame.K_ESCAPE]:
134         # Quit Pygame
135         pygame.quit()
136         # Exit Python
137         exit()

```



The tractor is under control.

Time for collisions.

Assignment Submission

1. Attach all tutorials and assignments.
2. Attach screenshots showing the successful operation of each tutorial program.
3. Submit in Blackboard.