

```
import pygame

import random

import math


# Initialize Pygame

pygame.init()


# Set up the display

WIDTH, HEIGHT = 800, 600

screen = pygame.display.set_mode((WIDTH, HEIGHT))

pygame.display.set_caption("Psychedelic Pulse")


# Colors

BLACK = (0, 0, 0)

WHITE = (255, 255, 255)


# Player

player_radius = 10

player_x = WIDTH // 2

player_y = HEIGHT - 50


# Goal

goal_radius = 20

goal_x = WIDTH // 2

goal_y = 50
```

# Obstacles

class PsychedelicShape:

def \_\_init\_\_(self):

self.x = random.randint(0, WIDTH)

self.y = random.randint(100, HEIGHT - 100)

self.radius = random.randint(20, 60)

self.color = (

random.randint(100, 255),

random.randint(100, 255),

random.randint(100, 255),

)

self.pulse\_speed = random.uniform(0.05, 0.2)

self.move\_speed = random.uniform(1, 3)

self.direction = random.choice([-1, 1])

def update(self):

self.radius = (

abs(math.sin(pygame.time.get\_ticks() \* self.pulse\_speed))

\* 40

+ 20

)

self.x += self.move\_speed \* self.direction

if self.x < 0 or self.x > WIDTH:

self.direction \*= -1

```
def draw(self):  
    pygame.draw.circle(  
        screen,  
        self.color,  
        (int(self.x), int(self.y)),  
        int(self.radius),  
    )
```

```
# Create obstacles
```

```
obstacles = [PsychedelicShape() for _ in range(10)]
```

```
# Game loop
```

```
clock = pygame.time.Clock()
```

```
running = True
```

```
while running:
```

```
    for event in pygame.event.get():
```

```
        if event.type == pygame.QUIT:
```

```
            running = False
```

```
# Move player
```

```
keys = pygame.key.get_pressed()
```

```
if keys[pygame.K_LEFT] and player_x > player_radius:
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```
    player_x -= 5
```

```
if keys[pygame.K_RIGHT] and player_x < WIDTH - player_radius:
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```

    player_x += 5

if keys[pygame.K_UP] and player_y > player_radius:

    player_y -= 5

if keys[pygame.K_DOWN] and player_y < HEIGHT - player_radius:

    player_y += 5


# Update obstacles

for obstacle in obstacles:

    obstacle.update()


# Check for collisions

for obstacle in obstacles:

    distance = math.sqrt(

        (player_x - obstacle.x) ** 2

        + (player_y - obstacle.y) ** 2

    )

    if distance < player_radius + obstacle.radius:

        player_x = WIDTH // 2

        player_y = HEIGHT - 50


# Check for goal

if (

    math.sqrt((player_x - goal_x) ** 2 + (player_y - goal_y) ** 2)

    < player_radius + goal_radius

):

    print("You win!")

```

```
running = False
```

```
# Draw everything
```

```
screen.fill(BLACK)
```

```
for obstacle in obstacles:
```

```
    obstacle.draw()
```

```
pygame.draw.circle(
```

```
    screen, WHITE, (int(player_x), int(player_y)), player_radius
```

```
)
```

```
pygame.draw.circle(
```

```
    screen, (255, 215, 0), (goal_x, goal_y), goal_radius
```

```
)
```

```
pygame.display.flip()
```

```
clock.tick(60)
```

```
pygame.quit()
```