

```
import pygame
```

```
import random
```

```
import math
```

```
# Initialize Pygame and mixer
```

```
pygame.init()
```

```
pygame.mixer.init()
```

```
# Set up the display
```

```
WIDTH, HEIGHT = 800, 600
```

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

```
pygame.display.set_caption("Psychedelic Soundscape Explorer")
```

```
# Colors
```

```
BLACK = (0, 0, 0)
```

```
# Player
```

```
player_pos = [WIDTH // 2, HEIGHT // 2]
```

```
player_radius = 20
```

```
# Sound zones
```

```
sound_zones = []
```

```
for _ in range(5):
```

```
    sound_zones.append(
```

```
        [
```

```
            random.randint(0, WIDTH),
```

```
        random.randint(0, HEIGHT),  
        random.randint(50, 150),  
    ]  
)
```

Create sounds

```
sounds = [pygame.mixer.Sound(f"sound{i}.wav") for i in range(1, 6)]
```

Main game loop

```
running = True
```

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

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]:
```

```
    player_pos[0] -= 5
```

```
if keys[pygame.K_RIGHT]:
```

```
    player_pos[0] += 5
```

```
if keys[pygame.K_UP]:
```

```
    player_pos[1] -= 5
```

```
if keys[pygame.K_DOWN]:
```

```
player_pos[1] += 5
```

```
# Clear the screen
```

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

```
# Draw and play sounds
```

```
for i, (x, y, radius) in enumerate(sound_zones):
```

```
    distance = math.sqrt(
        (player_pos[0] - x) ** 2 + (player_pos[1] - y) ** 2
    )
```

```
    if distance < radius:
```

```
        intensity = 1 - (distance / radius)
```

```
        sounds[i].set_volume(intensity)
```

```
        sounds[i].play(-1)
```

```
# Create trippy color based on distance and sound
```

```
r = int(255 * math.sin(intensity * math.pi / 2))
```

```
g = int(255 * math.cos(intensity * math.pi / 2))
```

```
b = int(255 * (1 - intensity))
```

```
pygame.draw.circle(
    screen, (r, g, b), (x, y), int(radius * intensity), 2
)
```

```
else:
```

```
    sounds[i].stop()
```

```
# Draw player
```

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

```
    screen, (255, 255, 255), player_pos, player_radius
```

```
)
```

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

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

```
pygame.quit()
```