The background features a dark blue grid. In each of the four corners, there is a stylized, glowing cyan circuit board pattern. These patterns consist of various lines, right-angle turns, and small circles representing solder points or vias, creating a symmetrical, high-tech aesthetic.

ALT-F4

A SPACE GAME



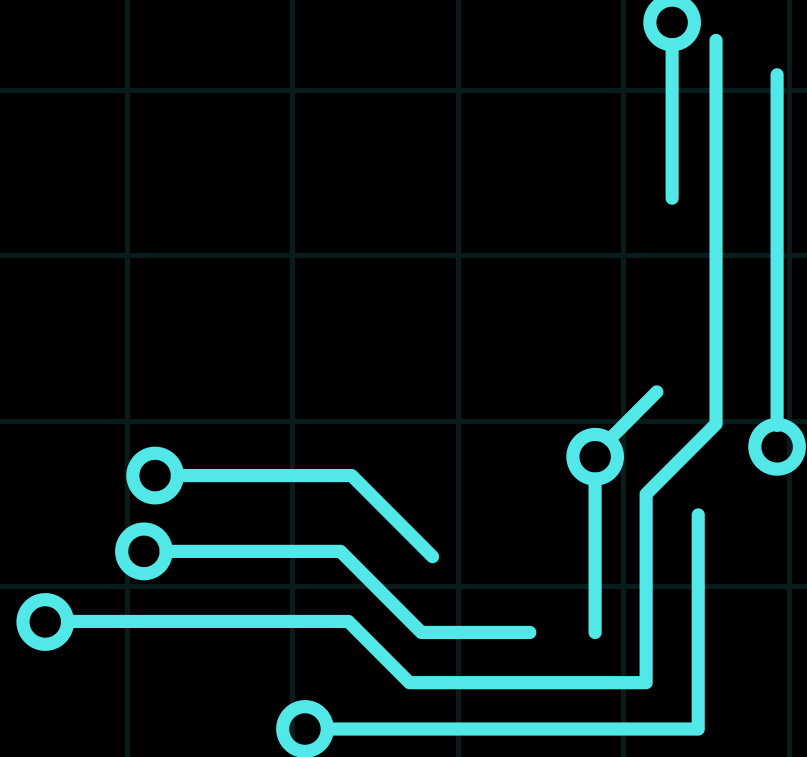
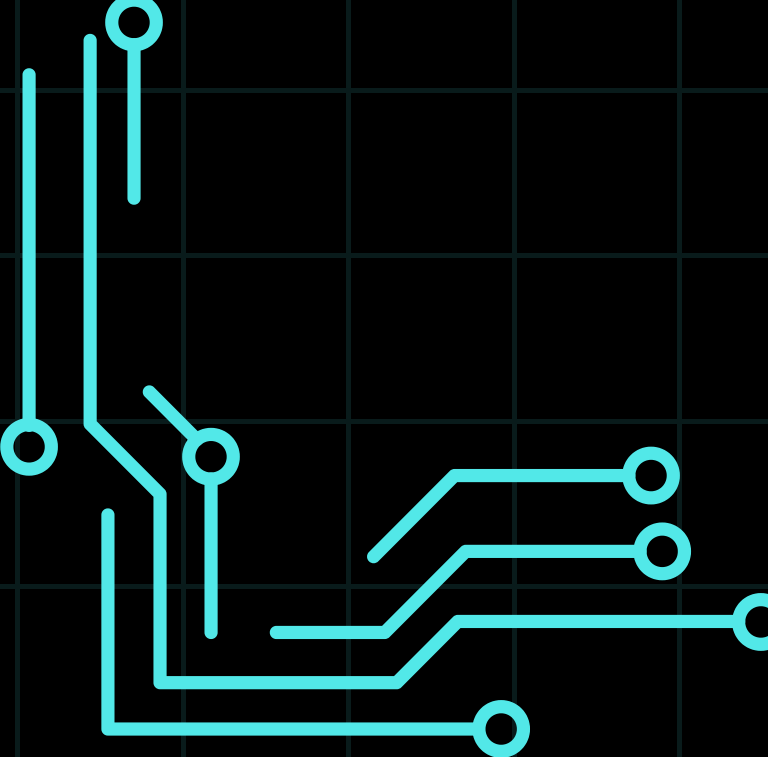
INTRODUCTION

"Alt-F4" is an action-packed space-themed game where players control a spaceship to navigate through hostile environments filled with enemies and obstacles. The goal is to survive, level up, and rack up points by defeating enemies and avoiding collisions. With various sound effects, power-ups, and engaging visuals, the game offers an exciting experience. Players can control their ship, fire lasers, and even escape dangerous situations using hyperspace. Will you survive and conquer all levels? The adventure begins now!



PROJECT GOAL

The goal of the "Alt-F4" project is to create an engaging space-themed game with various levels, enemies, and obstacles. It aims to provide an immersive experience through dynamic gameplay, sound effects, and smooth animations. By integrating simple mechanics like movement, shooting, and collision detection, the game encourages skill improvement and score competition, offering both fun and challenge.



GAME SCREEN

```
1  # - START OF MAIN MENU -
2
3
4  # Menü ekranını oluştur
5  menu_screen = turtle.Screen()
6  menu_screen.title("Alt-F4")
7  menu_screen.bgcolor("black")
8  menu_screen.setup(width=600, height=600)
9
10 # Yazı stilini ayarla
11 font_title = ("Arial", 24, "bold")
12 font_options = ("Arial", 18, "normal")
13 font_small = ("Arial", 12, "normal")
14
15 # Başlık yazdır
16 title = turtle.Turtle()
17 title.color("white")
18 title.penup()
19 title.hideturtle()
20 title.goto(0, 200)
21 title.write("The Alt-F4", align="center", font=font_title)
22 title.goto(0, 150)
23 title.write("Furkan Turan - Taha Mert Yıldız - Burak Can Şen", align="center", font=font_small)
24
25 # Menü seçeneklerini yazdır
26 option_1 = turtle.Turtle()
27 option_1.color("green")
28 option_1.penup()
29 option_1.hideturtle()
30 option_1.goto(0, 50)
31 option_1.write("1. Start Game", align="center", font=font_options)
32
```

```
32
33 option_2 = turtle.Turtle()
34 option_2.color("red")
35 option_2.penup()
36 option_2.hideturtle()
37 option_2.goto(0, 0)
38 option_2.write("2. Exit Game", align="center", font=font_options)
39
40 # Kullanıcı seçimi için fonksiyonlar
41 def start_game():
42     title.clear()
43     option_1.clear()
44     option_2.clear()
45     menu_screen.bgcolor("blue")
46     start_game1()
47     turtle.done()
48
49 def exit_game():
50     menu_screen.bye() # Turtle ekranını kapatır
51
52 # Kullanıcı etkileşimleri
53 menu_screen.listen()
54 menu_screen.onkey(start_game, "1") # "1" tuşuna basıldığında oyunu başlatır
55 menu_screen.onkey(exit_game, "2") # "2" tuşuna basıldığında oyundan çıkar
56
57 # Ekranı açık tut
58 menu_screen.mainloop()
59
60 # - END OF MAIN MENU -
```

DIRECTION DETERMINATION



```
1  # Klavye ataması
2      turtle.onkey(player.turn_left, "Left")
3      turtle.onkey(player.turn_right, "Right")
4      turtle.onkey(player.accelerate, "Up")
5      turtle.onkey(player.decelerate, "Down")
6      turtle.onkey(bullet.fire, "space")
7      turtle.listen()
```

GAME INITIALIZATION AND GRAPHICS SETUP

```
1  def start_game1():
2      def play_explosion_sound():
3          explosion_sound.play()
4
5      def play_hyperspace_sound():
6          hyperspace_sound.play()
7
8      def play_laser_sound():
9          laser_sound.play()
10
11     def play_missile_sound():
12         missile_sound.play()
13
14     # Required on Mac to create turtle window
15     turtle.fd(0)
16
17     # Max animation speed
18     turtle.speed(10)
19
20     # Change the background color of the screen
21     turtle.bgcolor("black")
22
23     # Load the background image
24     turtle.bgpic("assets/images/menu_V3.png")
25
26     # Hide the turtle
27     turtle.ht()
28
29     # Set the undo buffer to 1 (to save memory and speed things up)
30     turtle.setundobuffer(1)
31
32     # Speed up drawing (Draw every 6 frames)
33     turtle.tracer(2)
```

SOUNDS



```
1 # Files of sounds
2 explosion_sound = pygame.mixer.Sound("assets/sounds/explosion.mp3")
3 hyperspace_sound = pygame.mixer.Sound("assets/sounds/hyperspace.mp3")
4 laser_sound = pygame.mixer.Sound("assets/sounds/laser_V2.mp3")
5 missile_sound = pygame.mixer.Sound("assets/sounds/missile.mp3")
6 menu_music = pygame.mixer.Sound("assets/sounds/menu_intro.mp3")
7 menu_music.play(1)
8 menu_music.set_volume(0.1) # Sesi kısıldı
9
```

ENDGAME AND RESTART

```
1 def check_level_up(self):
2     if self.level < len(self.level_thresholds) and self.score >= self.level_thresholds[self.level - 1]:
3         # Önceki leveldeki düşmanların rengini gri yap
4         for enemy in self.enemies:
5             enemy.color("gray")
6
7         self.level += 1
8         self.show_status()
9         messagebox.showinfo("Level Up", f"Welcome to Level {self.level}!")
10        self.add_enemies() # Yeni levelde yeni düşmanları ekle
11    if self.score >= 3000:
12        self.state = "gameover"
13        messagebox.showinfo("Congratulations!", "You have reached 3000 points and won the game!")
```




THANK YOU

FURKAN TURAN - TAHA MERT YILDIZ - BURAK CAN ŞEN

