

```
import turtle
```

```
import time
```

```
import random
```

```
WIDTH, HEIGHT = 500, 500
```

```
Screen = turtle.Screen()
```

```
Screen.setup(WIDTH, HEIGHT)
```

```
Screen.title('The Great Turtle Race')
```

```
COLORS = ['red', 'green', 'blue', 'yellow', 'purple', 'brown', 'gray', 'pink', 'olive', 'orange']
```

```
def get_the_num_of_racers():
```

```
    while True:
```

```
        racers = input("Enter the number of racers (2-10): ")
```

```
        if racers.isdigit():
```

```
            racers = int(racers)
```

```
            if 2 <= racers <= 10:
```

```
                return racers
```

```
        print("Input is not numeric or not in range 2-10. Try again!")
```

```
def race(colors):
```

```
    turtles = create_turtles(colors)
```

```
    while True:
```

```
        for racer in turtles:
```

```
            distance = random.randrange(1, 20)
```

```
            racer.forward(distance)
```

```
x, y = racer.pos()

if y >= HEIGHT // 2 - 10:

    return colors[turtles.index(racer)]
```

```
def create_turtles(colors):

    turtles = []

    spacingx = WIDTH // (len(colors) + 1)

    for i, color in enumerate(colors):

        racer = turtle.Turtle()

        racer.speed(2)

        racer.shape('turtle')

        racer.color(color)

        racer.penup()

        racer.setpos(-WIDTH // 2 + (i + 1) * spacingx, -HEIGHT // 2 + 20)

        racer.pendown()

        racer.left(90)

        turtles.append(racer)

    return turtles
```

```
def init_turtle():

    screen = turtle.Screen()

    screen.setup(WIDTH, HEIGHT)

    screen.title('The Great Turtle Race')
```

```
racers = get_the_num_of_racers()

random.shuffle(COLORS)

colors = COLORS[:racers]
```

```
winner = race(colors)

print(f'The winner is the turtle with color {winner}')

Screen.mainloop()
```