DEVELOPMENT OF SMART PARKING PHASE 3

Components Required

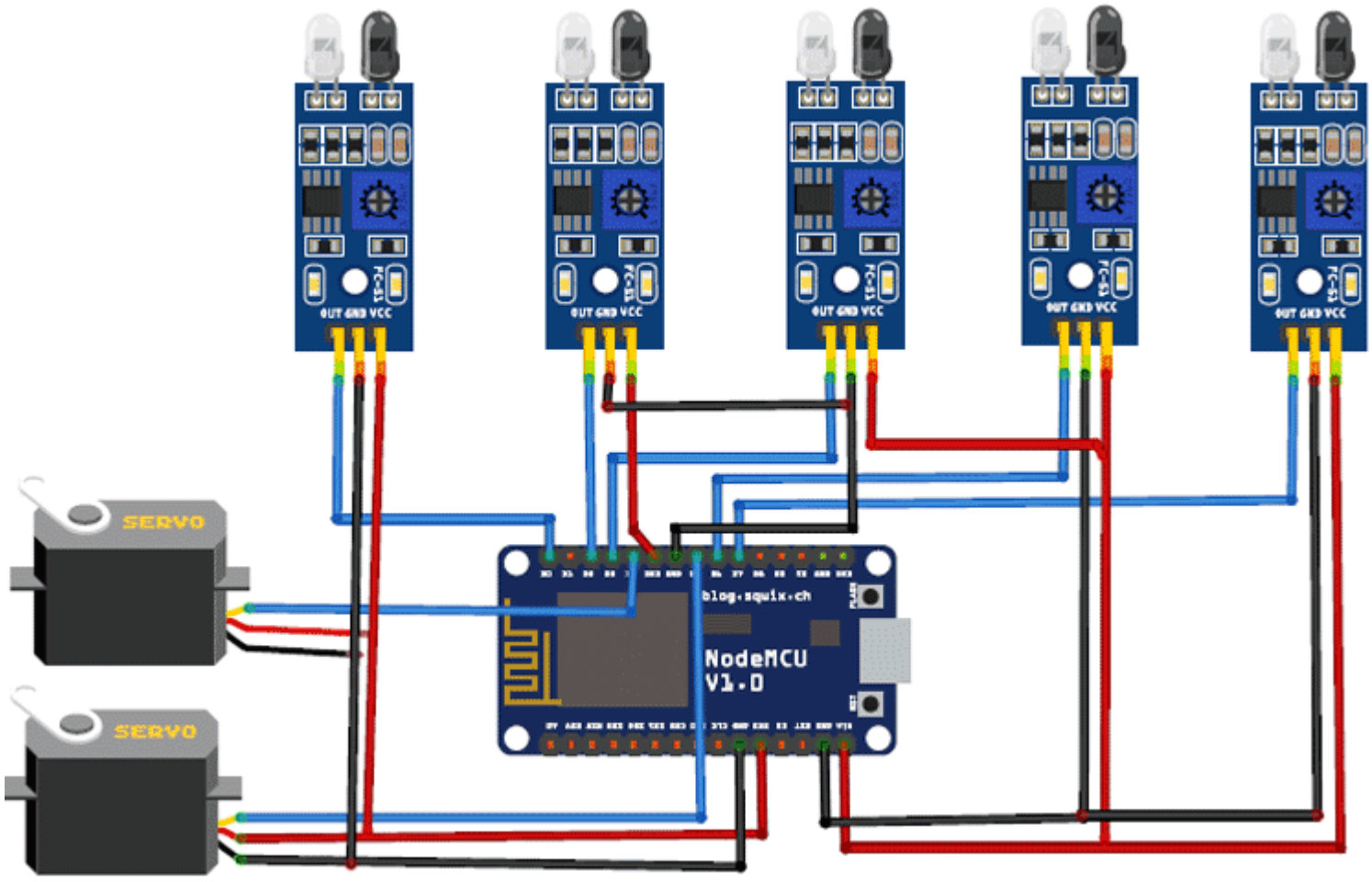
NodeMCU ESP8266

IR Sensor (5)

Servo Motor (2)

CIRCUIT DIAGRAM

The circuit diagram for this IoT based smart parking system project is given above



PROGRAM

```
import time
import random

# Simulated parking lot with 10 spots
total_spots = 10
available_spots = total_spots

# Simulate parking spot occupancy
def simulate_parking_lot():
    global available_spots
    # Simulate a vehicle entering or leaving the parking lot
    action = random.choice(["enter", "leave"])

    if action == "enter" and available_spots > 0:
        available_spots -= 1
        return f"Vehicle entered. Available spots: {available_spots}"
    elif action == "leave" and available_spots < total_spots:
        available_spots += 1
        return f"Vehicle left. Available spots: {available_spots}"
    else:
        return "No action taken."

# Main loop for simulating the smart parking system
while True:
    print(simulate_parking_lot())
    time.sleep(random.randint(1, 5))  # Simulate time passing
```