

maze code:

```
import RPi.GPIO as GPIO
import time

# Define GPIO pins for motor control
motor_pins = [17, 18, 22, 23] # Adjust these pins based on your motor driver connections

# Set up GPIO
GPIO.setmode(GPIO.BCM)
GPIO.setup(motor_pins, GPIO.OUT)

# Function to move the robot forward
def move_forward():
    GPIO.output(motor_pins, [GPIO.HIGH, GPIO.LOW, GPIO.HIGH, GPIO.LOW])
    print("Moving forward")
    time.sleep(1)

# Function to turn the robot left
def turn_left():
    GPIO.output(motor_pins, [GPIO.LOW, GPIO.HIGH, GPIO.HIGH, GPIO.LOW])
    print("Turning left")
    time.sleep(1)

# Function to turn the robot right
def turn_right():
    GPIO.output(motor_pins, [GPIO.HIGH, GPIO.LOW, GPIO.LOW, GPIO.HIGH])
    print("Turning right")
    time.sleep(1)

# Function to stop the robot
def stop_robot():
    GPIO.output(motor_pins, GPIO.LOW)
    print("Stopping")
    time.sleep(1)

# Predefined path (1: move forward, 2: turn left, 3: turn right, 0: stop)
path = [1, 1, 2, 1, 3, 1, 0]

# Main loop to follow the predefined path
try:
    for action in path:
        if action == 1:
            move_forward()
        elif action == 2:
            turn_left()
        elif action == 3:
            turn_right()
        elif action == 0:
            stop_robot()

except KeyboardInterrupt:
    print("Maze solving interrupted by the user.")
finally:
    GPIO.cleanup()
```

