

ROBOTICS MINI PROJECT

Aim: Create a robot which will move only on yellow path in given image.

Code:

```
package roboticsprac1;

import ch.aplu.robotsim.Gear;
import ch.aplu.robotsim.LegoRobot;
import ch.aplu.robotsim.LightSensor;
import ch.aplu.robotsim.RobotContext;
import ch.aplu.robotsim.SensorPort;

public class yellowpathfollower {

    static {

        RobotContext.useBackground("sprites/yellowpath.gif");

        RobotContext.setStartPosition(430,230);

        RobotContext.setStartDirection(-90);

    }

    public yellowpathfollower() {

        LegoRobot legoRobot = new LegoRobot();

        Gear gear = new Gear();

        LightSensor lightSensorL = new LightSensor(SensorPort.S2);

        LightSensor lightSensorR = new LightSensor(SensorPort.S1);

        LightSensor lightSensorM = new LightSensor(SensorPort.S3);

        legoRobot.addPart(gear);

        legoRobot.addPart(lightSensorL);

        legoRobot.addPart(lightSensorR);

        legoRobot.addPart(lightSensorM);
```

```
gear.forward();
gear.setSpeed(100);

double arcLength = 0.1;

while (true) {
    int lightSensorRValue = lightSensorR.getValue();
    int lightSensorDiff = lightSensorRValue - lightSensorL.getValue();

    if (lightSensorM.getValue() < 100) {
        gear.stop();
    }

    if(lightSensorDiff > 100) {
        gear.rightArc(arcLength);
    }
    else if (lightSensorDiff < -100) {
        gear.leftArc(arcLength);
    }
    else {
        if (lightSensorRValue > 500) {
            gear.forward();
        }
    }
}

public static void main(String[] args) {
    new yellowpathfollower();
}
```

```
}
```

OUTPUT: