Microbit Robotics Beginner Level 1

Final Presentation Flow

Presented by Advanced Superlogic Team

Today's Topic:

1. Presentation Flow
2. What to cover in your slides?

Presentation Flow (8 mins per group)

1. Preparation & Setup (1 min)
2. Introduction (1 min)
3. Presentation & Demonstration (3 mins)
4. Q & A from judges (3 mins)

What you need to cover in your Presentation?

1. Problem Statement
2. Objectives
3. Demonstration
4. Explanation of Mechanism and Coding

Problem Statement (Smart Street Light as sample)

Street light keeps lighting up and consuming a lot of electricity.

Although nowadays street light will be automatically switched off during day time, but it’s thoroughly on in the whole night time, even there’s no car or pedestrian on the street.

There are some wastage of energy in this process.

Objectives (Sample – Smart Street Light)

1. **Save electricity during night time when street light is not used**

   - When there is no car or pedestrian, the street light will automatically off after 15 seconds

2. **Ensure safety and lighted up when car passby**

   - When a car is approaching, the street light will be switched on

   - It will be switched on when a pedestrian is passing by

Demonstration (Sample – Smart Street Light)

Demonstration:

1. When the photosensitive module detects light, RGB will be turned off
2. When cover up the photosensitive module, the street light is ready to turn on
3. When the IR sensor is detecting object, the street light will be turned on for 5 seconds.
4. After 5 seconds without sensing anything from the IR sensor, the RGB will switch off.

Explanation (Sample – Smart Street Light)

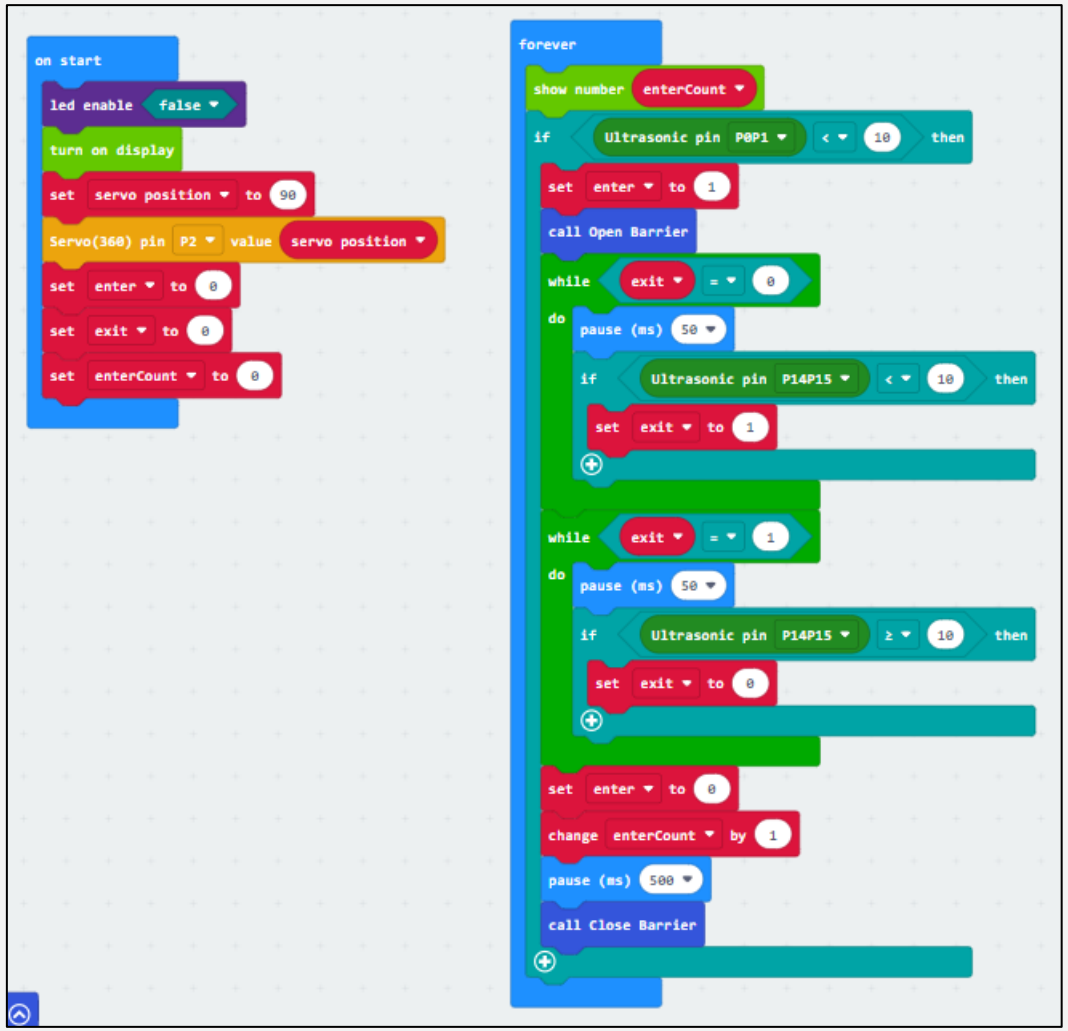
Photosensitive module:

The photosensitive module is to detect light intensity. This module is to detect whether it is day or night time.

Infrared module:

This infrared module is used for car detection.

Explanation – Coding (Sample – Smart Street Light)



I'm using the if else condition statement in the forever loop.

I use 1 condition to check whether it is day or night time to in order to turn off the RGB module.

Then I added 1 if condition into the nested if (when photosensitive value < 400), this is the check whether the IR module is sensing an obstacle in front.

Thank you :)