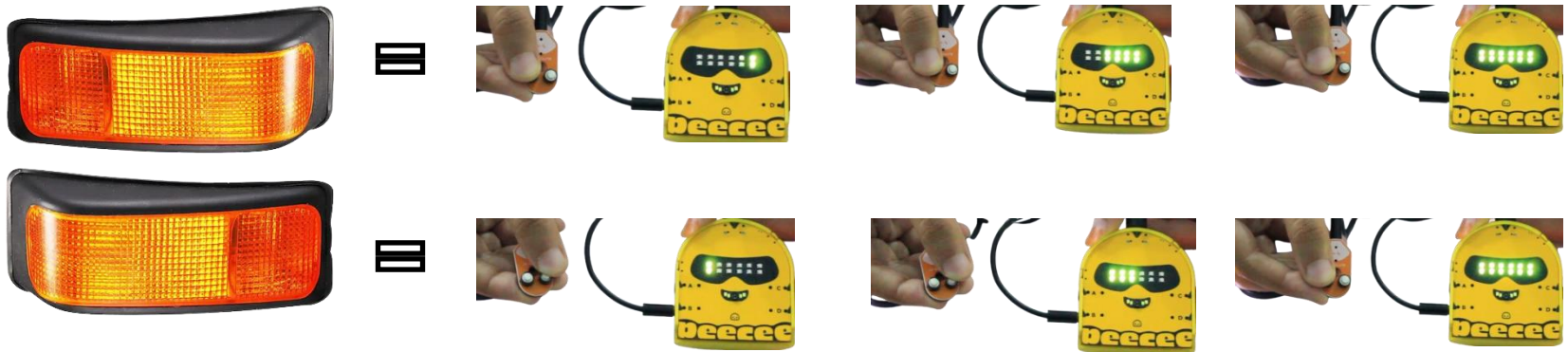


Left Right Indicator

Project Overview: In this project, We program our robotic eyes to detect and interpret directional signals, enabling them to function as left and right indicators. This allows the robotic system to distinguish between left and right directional cues, mimicking human visual processing for navigational or signaling purposes.

Indicator signals should be used to indicate when you are intending to turn or pull over. Using the left indicator means you are going to turn or stop on the left side of the road. Avoid using your left indicator to show you are going to stop on the left, if there is also a left hand junction before your stop.



Prerequisite

- Traffic Signals
- Light
- Luminance
- Intensity/ luminance intensity
- Basic knowledge of color

Learning Outcomes

We Will Learn About-

- Traffic Signals
- Waves, wavelength, Intensity, luminance, luminous intensity.
- Light , Electromagnetic Spectrum
- Color mixing theory
- RGB color model
- RGB LEDs, and its applications

Ask About....

Had you think about !

1. Why are vehicle lights red?
2. Why is the color red used for dangerous signals?

STEAM

SCIENCE: Signals, Waves, wavelength, Light, Electromagnetic Spectrum, luminous, luminous intensity, color mixing theory.

ARTs: Signal Shapes and design

Technology/Engineering: Introduction to microcontrollers and coding, Sequential programming for LED operation.

Mathematics: LED combination as signal, Calculate color using color mixing theory. Color intensity level = 0 to 255. **If** $R=255, G=255, B=255$ it produces white color.

Note: Our robotic eyes can also be designed to mimic different types of road safety signals.