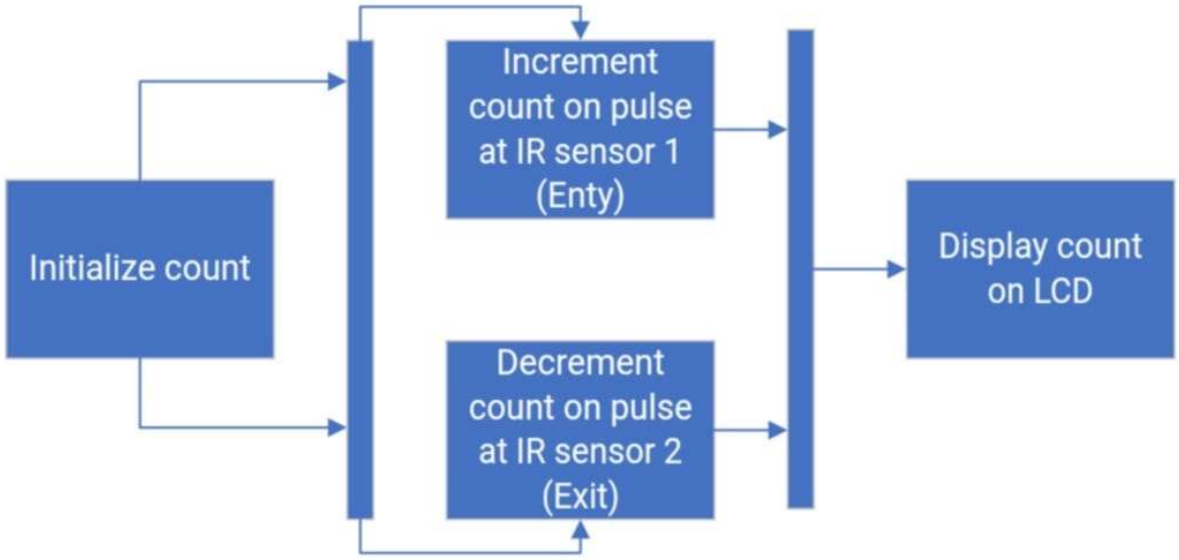
Embedded System Lab SYNOPSIS

Date of submission: 5th October 4, 2024

PROJECT TITLE: Parking Facility Monitoring System

BRIEF DESCRIPTION ABOUT THE PROJECT:

The project involves using infrared sensors to construct a vehicle monitoring system for a parking facility. The LPC 1768 microcontroller, which is the central element of this system, processes sensor data and displays parking occupancy data on an LCD screen. To implement this system, two infrared sensors will be placed - one at the entrance and another at the exit of the parking lot. These sensors will detect the presence of vehicles and transmit signals to the LPC 1768 microcontroller. Upon receiving these signals, the microcontroller will interpret them to either increase or decrease the count of vehicles in the parking lot, effectively tracking the number of vehicles entering and exiting. This setup enables real-time monitoring of parking occupancy, providing valuable information into available parking spaces and overall utilization of the parking facility. The integration of infrared sensors with the LPC 1768 microcontroller ensures accurate and efficient tracking, enhancing operational efficiency and user experience within the parking lot environment.



COMPONENTS REQUIRED:

- NXP LPC 1768 kit
- IR Sensors x2
- LCD
- FRC Cables

TEAM MEMBERS:

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