Design of Embedded Intelligent Systems

ZEUS Energy and Transport Company

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Introduction

The Intelligent Infrastructure.

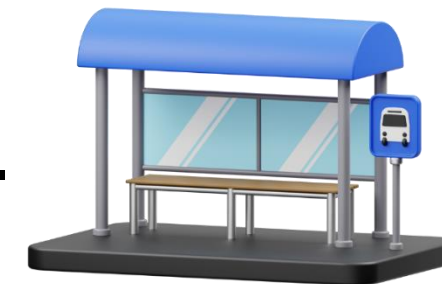1. Smart Street Light Control.

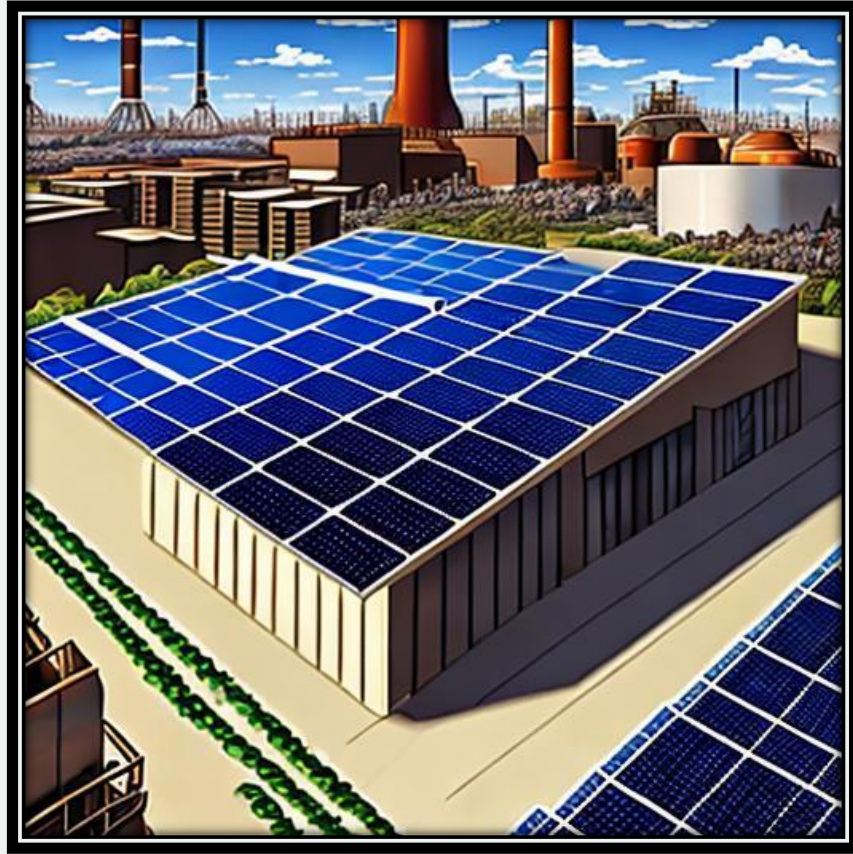2. Power Monitoring.

The Mobile Robot

1. Detects Street light.

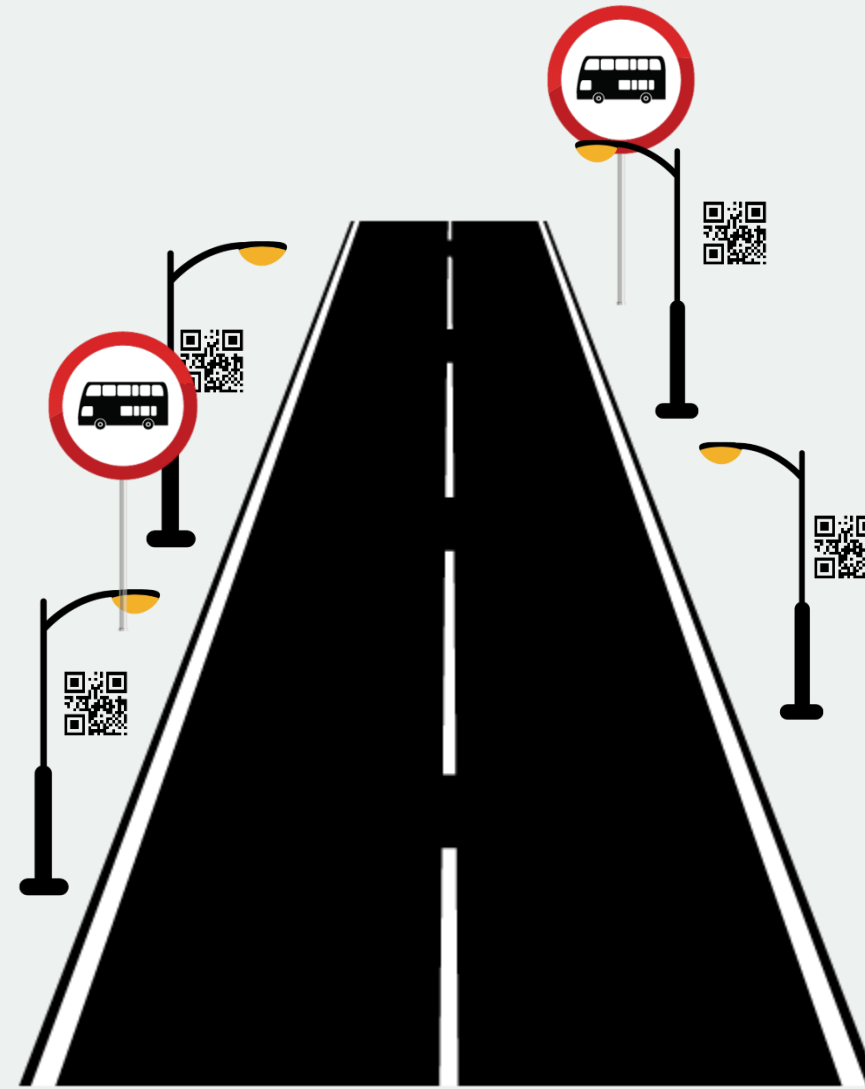2. The Robot automatically stop at the bus stops(checkpoints).

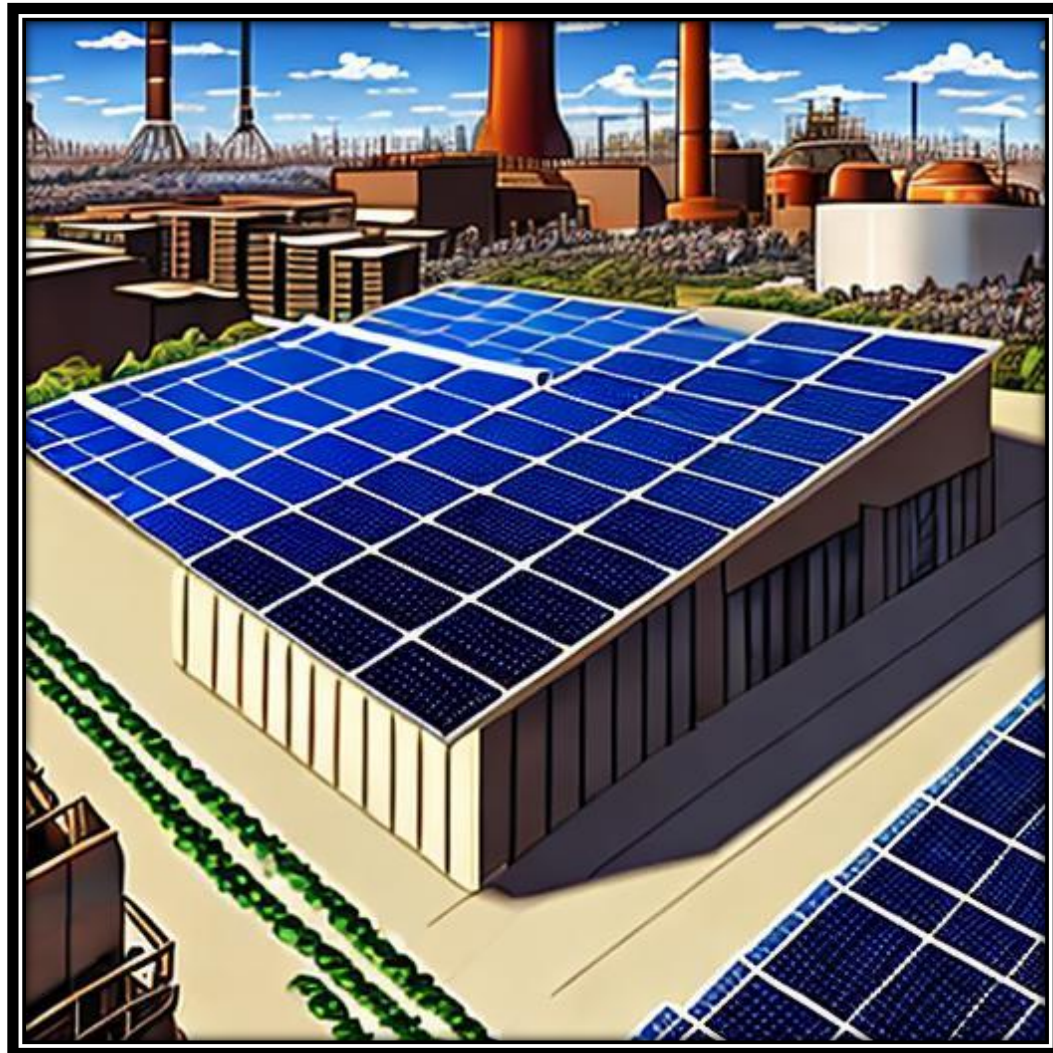3. The bus is expected to obey laws.

ZEUS Energy Unit
(Smart Infrastructure)

Street
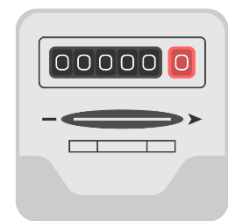
ZEUS Public Transportation
(Robot)

FN/NFN Requirements : Infrastructure

**ZEUS Energy Unit
(Smart Infrastructure)**
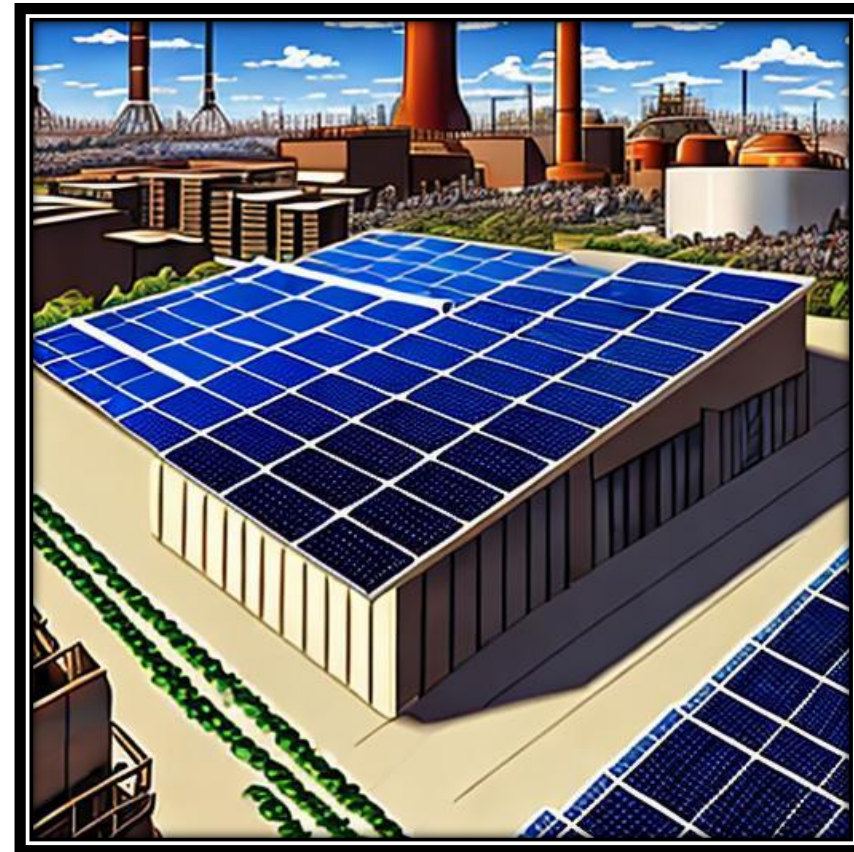
1. Switching on/ off Street light

2. Monitoring the energy consumption from other infrastructures and sending alerts.
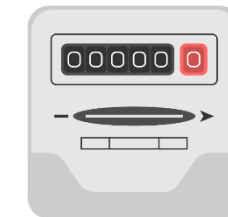
Smart Infrastructure

Other Group's Infrastructure

Smart Energy Meter

Power Company

Smart Energy Meter
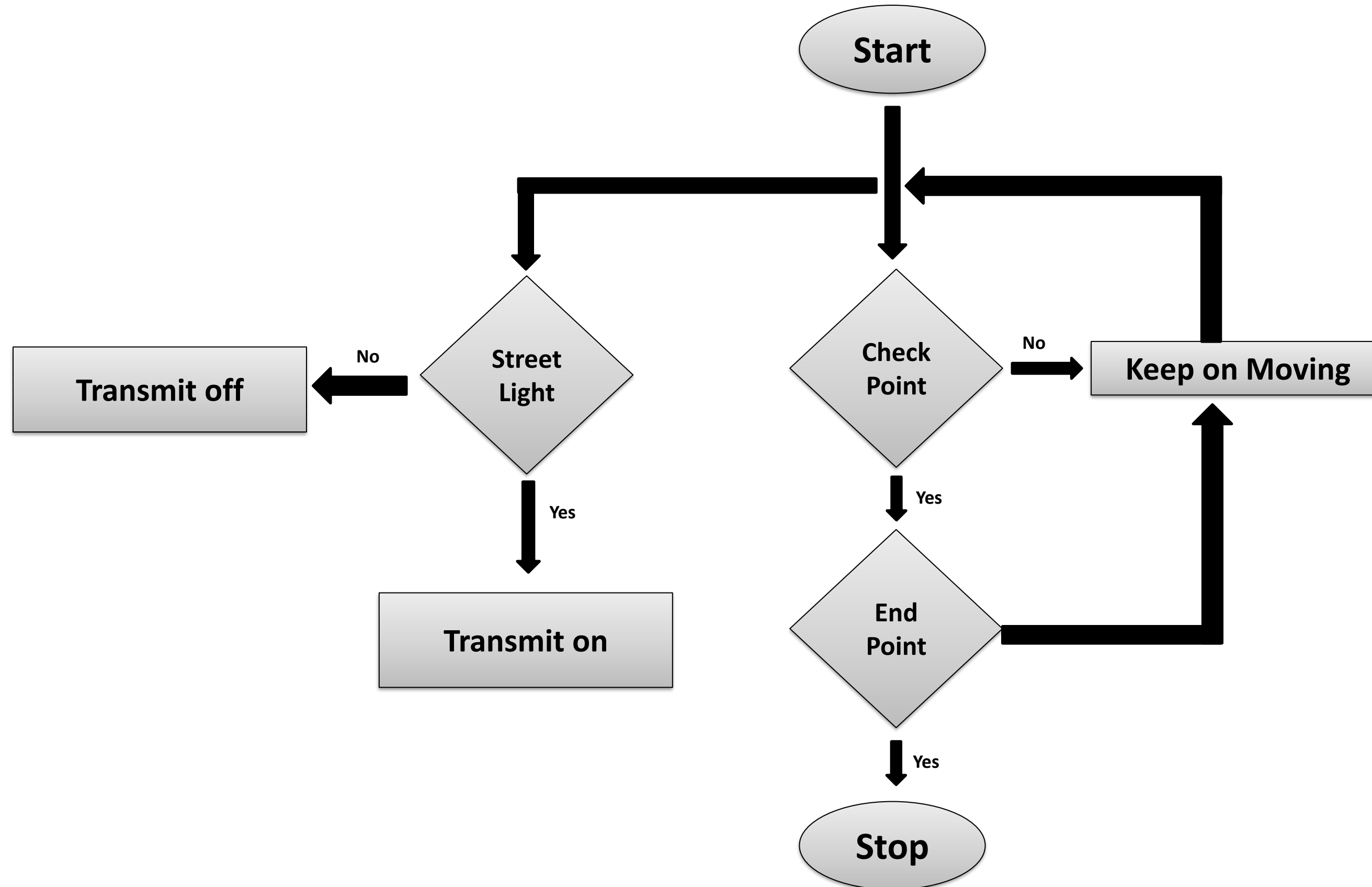
Other Group's Infrastructure
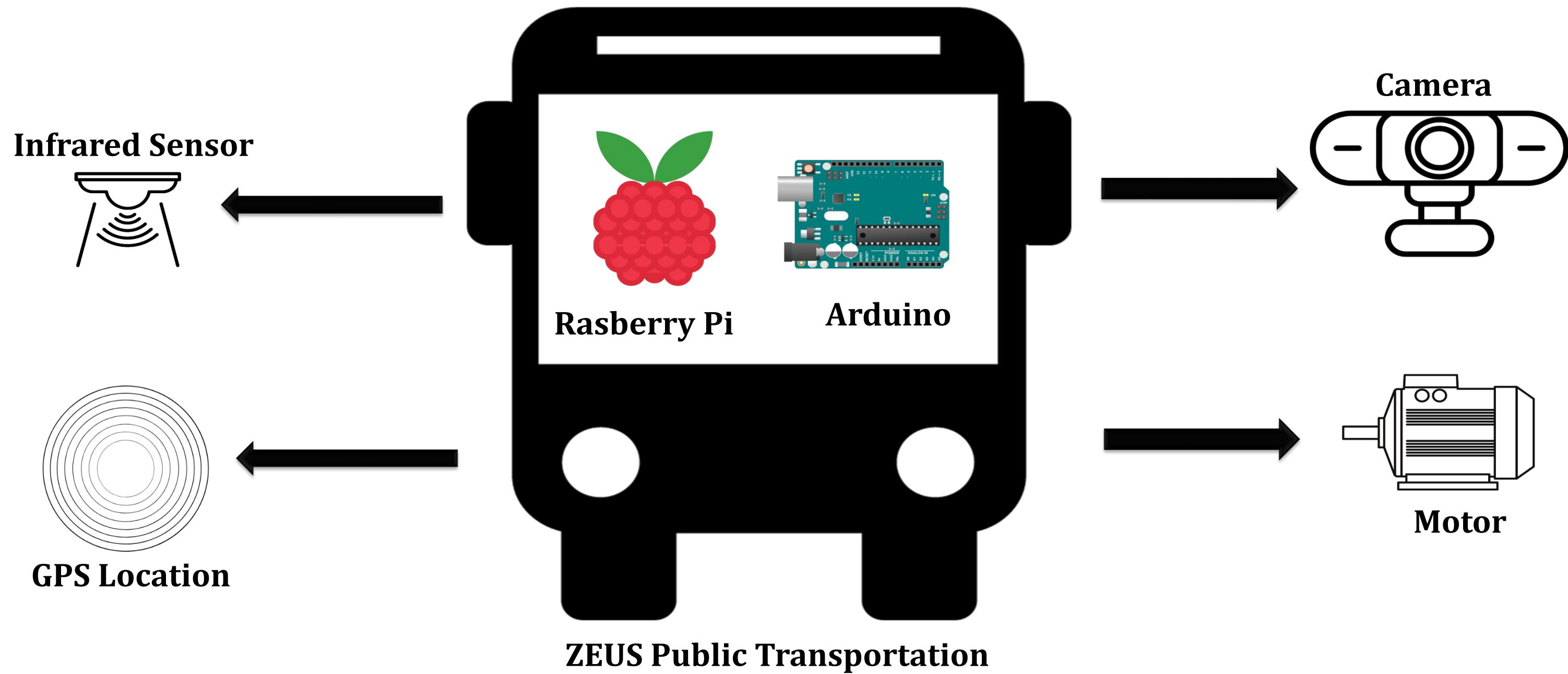
FN/NFN Requirements : Robot

**ZEUS Public Transportation
(Robot)**

1. Map Navigation - Infrared line following

2. Localizing on the Map - Spiral Identification (GPS)

3. Identifying the nearest Streetlight - Camera (QR Code / Color)

4. Identification of the Checkpoint - Computer Vision/Machine Learning
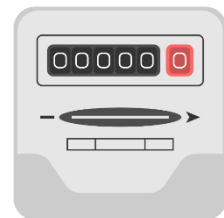
Robot Flow Diagram

Robot

Infrared Sensor

GPS Location

Rasberry Pi

Arduino

Camera

Motor

ZEUS Public Transportation

Individual Roles

ZEUS Energy Unit

ZEUS Public Transportation

Smart Energy Meter

Dhanya

Smart Street Lights

Mabin

Navigation & Localization

Kiran

Computer Vision & Machine Learning

Srinivasan

Thank you!