PHY564A
Project IOT 1

The objective of this project is to create a prototype of a connected roller shutter. This shutter will be equipped with a light sensor that informs the user about the brightness level as well as its source (sunlight or neon lights). An application will allow the user to remotely receive this information and also control the opening or closing of the shutter.

Your prototype must be fully functional and include the following:

- **A light sensor** capable of determining whether the light comes from outside (e.g., sunlight) or neon lights (work based on the frequency).
- **A motor** to simulate the operation of the roller shutter.
- **Data transmission** to a server (e.g., Raspberry Pi).
- **An application** (e.g., a web application) that displays the light and allows manual control of the roller shutter.

The communication protocols, data management, and application implementation are up to you but must align logically with the project.