# EN1190 Engineering Design Project



# Power Saving

# Automatic

# Light Controller

**Project Proposal by** *Techno Beasts*

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## Introduction

❖ In this project we mainly focus to build an automatic room light controller to save the power by counting the number of people who entering to the room and getting out from the room. Also, we hope to bring some convenience to users by reducing their time they spend switching the ON and OFF bulb.

## Identified Problem

❖ **Energy Waste:** Traditional light switches can lead to unnecessary energy waste, as people often forget to turn off the lights when leaving a room. It can cause to increasing energy waste and electricity bills.

❖ **Convenience:** It might be inconvenient to have to manually turn lights on and off every time we enter or leave a place.

❖ **Accessibility:** Disabled people may face challenges in accessing and operating light switches, which can limit their independence and make it difficult to navigate the surroundings.

❖ **Safety:** Forgetting to turn off a light before leaving a room can pose safety risks, such as the risk of fire hazards or damage to property.

## Solutions

❖ **Energy Efficiency:** Our automatic room light controller can help reduce energy waste by turning off the lights when no one is present in the room. This can lead to a decrease in energy consumption and lower electricity bills.

❖ **Convenience:** By automatically turning on the lights when someone enters the room, automated light controller may give a more smooth and convenient lighting experience, removing the need for manual switches.

❖ **Accessibility:** Our light controller can help to increase accessibility for disabled people who may have difficulties with accessing or manipulating light switches. This project can make it easy for everyone to use the lighting by automating the process of turning lights on and off.

❖ **Safety:** Light controller can help to protect the property without any damage by turning off the lights automatically when no one is in the room.

❖ **Cost Savings:** Our design can help to reduce electricity bills by lowering energy consumption. It helps people to stabilize financial. This can lead to long-term cost savings for homeowners or businesses.