ENERGY SAVING LIGHT AUTOMATION SYSTEM

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Abstract

- One of the major expenses of a factory is electricity.
- Most factories suffer from electricity wastage.
- This product is designed to minimize the electricity wastage and to maximize the growth of the firm.

Problem and Solution

If lights are turned on even when sun light can be used, it is an energy wastage.

Background

There are many products which focus on light automation which are employed to maximize the energy savings from the lighting system, satisfy building codes, or comply with green building and energy conservation programs. Most of them are created for luxurious domestic purposes and because of that much expensive.

But in this project we focused mainly on low cost light automation, which is ideal for industry.

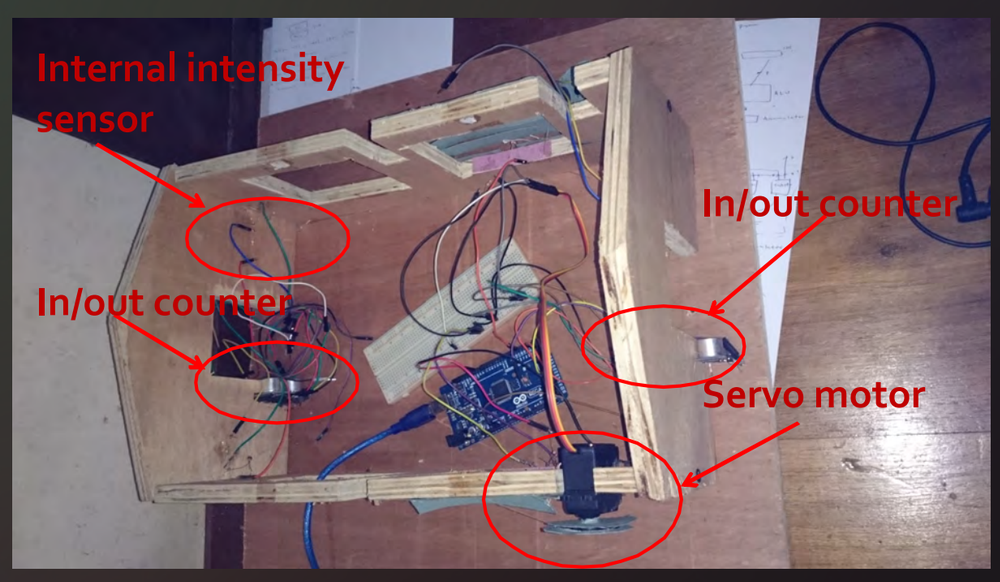
Implementation

In and out counter module
- ✓ Count entering and exiting people
- ✓ Used ultra sonic sensors to detect people

Light intensity detecting module
- ✓ Detect intensity inside and outside
- ✓ Used LDRs

Server motor controller module
- ✓ Open or close window blinds according to the system output.
- ✓ Used server motor to control the movements of the blinds

Implementation



Results

- If there are people inside, check whether daylight is enough to light up inside. If so, window blinds will open or remained opened and bulbs will be turned off if they are on.
- If outside light intensity is not enough, lights will be turned on or will remain turned on.
- If outside intensity is less than a certain level (much darker), then blinds will be closed.
- Above process will happen periodically.
- Counting people will happen continuously.

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