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Version Number:

Team Members :

Team No:

Module: Model Based System Engineering

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**Document History**

# 

# TABLE OF CONTENT

**Introduction:…………………………………………………….3**

**Requirements:………………………………………………………3 to 5**

**Components Required……………………………..5**

**4W’s and 1H…………………………………………..6**

**Swoot Analysis……………………………………………7**

**Auto Intensity Control of Street Lights**

**Introduction:**

**In this project i want to domenostrate how a street light intensity can be controlled using ldr(light dependent Resistor ) and Rtc(Real Time clock) according to the time and environment.**

**REQIREMENTS:**

**High level Requirements**

**• it calculate intensity.**

**• It calculates the time.**

**• It should display time.**

**• it should have lights**

**Low level Requirements**

**Low Level Requirements for HL1**

**Llr1: It shall have the light sensor and calculate the intensity.**

**Llr2 : It connects to adc.**

**Low Level Requirements for HL2.**

**Llr1 : It shall clock and it calculate time**

**Llr2 : It connected to input pin**

**Low Level Requirements for HL3**

**Llr1: It have lcd and it display time**

**Llr2 : It connect to input**

**Low Level Requirements for HL4**

**Llr1 : It should have led relays**

**Llr2 : It connect to port.**

**Components Required**

**Power supply : it**

**LDR: Light dependent resistor is used to calculate the intensity of light**

**LCD: Lcd is used to display the time which read from ic RTC: Real time clock is used for to calculate the current time.**

**LED: It gives the output according to the input from the cicuits**

**MICROCONTROLLER: it is used to control all the circuits..**

**4w’s and 1H?**

**Where?**

**It should used in traffics and in highway roads, etc.. to control the intensity .**

**What?**

**It should controls controls the light.**

**When?**

**it will be used when we want to save the power in peak times.**

**WHY?**

**By using this we can save power.**

**How?**

**WE use this as a controller it control the intensity of light**

**Swoot Analysis?**

**strengths?**

**we can control 24/7.**

**it detects the intensity.**

**weeknees?**

**in some cases detects false intensity.**

**oppertunites?**

**we can save more more power.**

**Threats?**

**It may damages the microcontroller sometimes.**

**ldr may caluclates some false intensity.**