INTERNET OF THINGS

Homework 2 : Light Sensor with a relay

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Source code explanations:

In our experiment, we use two LEDs for low light conditions (NIGHT TIME) and lighting conditions (DAY TIME). Here is how our code works :

1- We setup everything by putting the ***RelayPin*** (meaning the signal received by the relay) to 8th digital output, the ***LightSensorPin*** to A0 analog input, the baud rate is 9600 and the ***SensorValue*** is initialized to 0.

2- At the beginning of the ***void loop()*** function, we read the input from the light sensor with ***LightSensorPin*** and we put the value of the intensity of light received by the photoresistor inside ***SensorValue*** variable.

3- The if…else statement checks, depending on ***SensorValue***, whether it is night time or day time. Note that, high values of ***SensorValue*** mean more light is pointed to the sensor and lower values, less light is being pointed to the sensor. All the values lesser than 200 are considered to be “low light conditions” values and then the system prints "*Low light, NIGHT TIME*" while turning **ON** the **blue LED** on the breadboard. For every value greater than 100, it is considered “lighting conditions” and the system will print "*More light, DAY TIME*" while turning **ON** the **red LED**, switching off the **blue LED**. The **blue LED** is connected to the ***Normally closed*** edge of the relay, and the **red LED** is connected to the ***Normally On edge***.