Green Switch

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Development: To make this switch possible, I was introduced to Arduino. “Arduino is an open-source computer hardware and software company, project and user community that designs and manufactures microcontroller-based kits for building digital devices and interactive objects that can sense and control objects in the physical world.” I learned arduino for 2 years and still learning to make this green switch. My procedure was very simple. I learned arduino using youtube videos online and using this knowledge i made the following invention/program. If motion is detected, the photo-resistors (light sensor) will sense the ambient light value, the value will be stored in arduino. The arduino will store the value of potientiometer(dimmer) which will be the value of light desired by user. The arduino will substract the light desired with the ambient light value which will give the value of lighting that is needed in room. The arduino will reduce the current flowing to the LED, which in consequence reduces the volts of LED. Results/Analysis: I did a test which proved how efficient the Green Switch truly is. I used two same batteries and two dimmable LEDs of 12V with two different switches, the regular switch and the Green Switch. The green switch was able to last 2x longer with the same battery than the ordinary led dimmer switch. It was much more efficient. This shows how much energy this switch can save. Then I was able to connect it to a 120V led and I realised we save more amps. And as the day progressed, the amps used by lights were decreasing. Not only this but I realised that the lights are working together. For example, if a light from another room is entering the room you are in, you room's lightbulb will decrease using amps.

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