



Timer Light Switch

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Timer Light Switches

We want to save energy in peoples homes. To do this timer light switches would be the best. So far 36% of energy is wasted in an average American home. Timer light switches is a great impact to sustainability. The website legrandgroup states, "programmable switches are some of the most eco-friendly light switches because they reduce the amount of energy you consume in your home. This is because they eliminate issues like forgetting to turn lights on and off." This has a great impact for you and your home. This can also prevent anyone to break into your house because they give the impression that someone is home when they turn on and off. This is how it has an impact on sustainability. These light switches reduce energy consumption and if you and your family are forgetful to turn off the lights this is a perfect opportunity to get timer light switches so you aren't wasting energy and money anymore. Switching to timer light switches would be an effective way to save resources because it helps the environment be greener and you more sustainable.



Smart Goal

We are trying to accomplish to get people to not waste their electricity. We will know when we reached this goal when we have finished this project. We do believe that we can achieve this project. This will make a difference in our personal life. It will help our family and other families save money and energy. This goal will have a completion time so we can make this change quickly.



Mission Statement



We want to save light energy in homes. We want the percent of light energy wasted to be lowered. Finally we want to have the energy bill of peoples house to be less. We will do this by trying to get people to get timer light switches installed in their homes.



Statement of Need



Timed light switches save electricity and can be a great opportunity for your family and it saves you money. When getting the timed light switches it will save you money and you would not waste as much electricity. It also helps the environment. 21% of people leave the lights on when leaving the house. Getting timer light switches would prevent this from happening, This is because you can set the light to go on when you want and when you want it to turn off so even if you forget it won't matter because it will do it itself. With the light switch it saves you time to turn on and off the lights, it helps you when you forget, and most importantly it saves electricity/energy and money. Also it can keep your house protected so when your gone and on a trip if you want you can set the light to turn on and off at a specific time so people think you are home so no one can break in. Getting timed light switches can benefit you and the environment. It makes you and the environment safer and better. Timed light switches can reduce the waste on money and and electricity.



Goal/Objective

The goal that we went is for people to install timed light switches so they don't waste electricity and hurt the environment even more. The desired outcome is saving electricity, money, and time. This will make also you be more sustainable in helping our environment. This is important and impacts economic (profit) because installing light switches saves you money and time. Although you will spend money to get them and maybe even have them installed they do great for the environment and can help you and your family. It will save about 15-25 dollars or more! With it saving you money you can use that money on something else instead of wasting it on electricity that you weren't even using. The timed light switches impacts the environment because since people will not waste electricity because when they waste their electricity they are polluting the air and harming greenhouse gases. With timed light switches you would not pollute anything and you would be more sustainable and you would be helping the environment. Timed light switches has an impact on society. This is because they may cost you more money when purchasing them but when you get them they will save you money so that you can out the extra money that you have from not wasting it on wasted electricity on something for your family or for yourself. This will also make your life easier.



Data, Project Analysis, and Cost

Each light switch costs about \$27.14 without tax. With tax the light switches are \$29.49. Depending with how many light switches you want changed it can either be cheap or a little more on the expensive side. The cost for light may only be a little for a few hours but when you keep on multiplying that cost every month it can get expensive especially when you aren't even using half of the electricity that you are paying. This is worth the investment because it will be very helpful for families and can be cheaper than what you spend now. Time light switches are a great energy saver especially if you are a person that forgets to turn off the lights in a room. One website states that it can also help with safety. There are 2 different types of timer light switches that you can get depending on which one you like. The 2 different types are electronic and mechanical. The way they save energy is because they acts as a communicator between the power source and the light. This is how the light switches work for them to turn on and off automatically. You can buy these light switches at a hardware store like Home Depot and Lowe's. The cost really depends on how many you buy and which timer light switch you want. I would first introduce this to my family to show them what I am trying to achieve and then I would tell them the pros and cons to the structural goals.



Impact Analysis/Conclusion

The pros of changing to timed light switches are saving energy and money. Since 36% of energy is wasted each year in the average American home, getting timer light switches could get that number be significantly lowered. As of 2020 the average American energy bill is \$115 per month. If you get timer light switches that would save you money each month. Timed light switches cost more money at first so that could make it unconvincing to some people but we can show them that in the long run will save you more money then it costs to buy one





Websites we used

- Make use of: <https://www.makeuseof.com/save-energy-at-home/>
- Sealed.com : <https://sealed.com/resources/energy-waste-in-homes/>
- Home depot:
<https://www.homedepot.com/b/Electrical-Wiring-Devices-Light-Controls-Timer-s/N-5yc1vZc334>
- Home tips <https://www.hometips.com/buying-guides/timer-light-switches.html>
- E power:
<https://e3power.net/blog/3-ways-you-can-save-money-utilizing-light-timers>
- [Electric Plug-In Timer Switch - Electronics Notes](#)
- [Leaving the Lights on | A Study from Utility Design](#)