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## ПЕРШИЙ КРОК У НАУКУ

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## INEXPENSIVE PROTECTION SYSTEM OF COUNTRY HOUSE

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Many people have a country house(dacha). Typically, it is a small house for storing of various garden equipment, building tools and other things. These houses are located in the countryside, in the territory, which belongs to a particular cooperative. Usually, cooperative Security is poor. Often, "people without a conscience" hack doors or windows of houses and steal things. People use the different protection for their country house, building a high fence, installing shutters on the windows and the iron doors, but these methods do not work. Of course, you can put gsm-alarm system that will protect the house well, sending a text message on your phone when robber will try to penetrate into the house. But it is expensive and can be more expensive than all tools in house. We need an affordable solution, such as imitation of human presence using light in the house, or imitation the security system external indicators. Of course, leave the light switched on is not rational, but you can leave a little white LEDs inside, or bring to the front of the house a little red LEDs along with a sign "The object is under protection". It's enough to robber think twice before he gets into the house. Some conventional batteries can be a power supply, but this is not rational, because they are quickly discharged and need to be replaced. There is a solution - solar battery. Until recently, it was so expensive solution, but now, these batteries are made from the cheap materials so it costs inexpensively. Also required: a voltage(DC) battery controller that will not allow overcharge the battery, li-ion battery (18650), LEDs white and red colors, photo relay which will enable LEDs switch on only at night - in the most likely time for a robbery, a diode or a fuse for safety equipment in case unforeseen circumstances.

Presented electrical circuit designed to maximize save received solar energy and use it efficiently.

This project has a simple structure and a low cost, helping to resolve security issues of a country house.

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