“LINK-SMS” Electronic Equipment Control Products

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ABSTRACT

Practical is something that many people like, from children to parents because it can save their time and energy, for example with the work email technology, which used to have to send letters by typing letters and then send them to the post office and get to their destination. or recipients who take a long time but with the email someone who wants to send a letter, they only have to type it and connect to the internet, in seconds the email reaches its destination without having to heat up to the post office.

Busyness is something that cannot be avoided by everyone where everyone has their own wishes, starting from office work, college work and other activities. When their daily activities that must be done at home are neglected, such as turning on the house lights at night and turning off the lights in the morning or watering plants in the garden of the house and other things because of busyness and things that might happen because neglecting the house without supervision causes many problems such as a fire or theft because of the home owner's busy schedule, for example, because the owner of the house is in a hurry, forgetting to remove the iron, it can cause a fire or the homeowner forgets to lock the door of the house and without any supervision. So a lot of bad things can happen because of busyness.

Having sophisticated technology and very helpful in everyday life is everyone's dream where people will feel helped by technology such as computer technology where writing, editing, and other things become easier without having to move places, but when People really need technology that is able to overcome the problems that arise from their busy life, such as monitoring the house from a distance or near from the danger of theft or fire because of the negligence of the

homeowner or a technology that is able to control electrical devices such as house lights, TV, radio and other or create an automatic garden sprinkler with remote control. In the market today there is no technology that can solve the problems experienced by someone who has their busy life only relying on house guards or helpers to supervise the house and turn on or turn off electronic devices at home but because the costs needed to recite the supervisor are quite high, very burdensome to the employer or home owner. Based on the analysis carried out by the author, such as the problem above, people who have a busy life because work requires a product that is able to maintain and control and control home electronics remotely and also has interesting technology that can solve the problems of homeowners.

The research method used in this study uses a research development approach (Research & Development). Research and development methods are research methods used to produce certain products and test the effectiveness of these products. (Sudaryo, et al, 2013: 11). According to Sugiyono (2009), R&D research steps consist of 10 steps as follows: (1) Potentials and Problems; (2) Data Collection; (3) Product Design; (4) Design Validation; (5) Design Revision; (6) Product Trial; (7) Product Revisions; (8) Trial Use; (9) Product Revisions; and (10) Mass Production.

The result of research and development carried out is a tool "LINK-SMS" for Electronic Equipment Control Products which is implemented to help the needs of the community in controlling home electrical appliances remotely using SMS or applications that have been provided. The resulting product is a tool for controlling electrical home appliances in the form of a box box equipped with electronic components with 2 contact box terminals for the output of electrical equipment. Before making the tool, the LINK-SMS tool design process was carried out, then tested the design validation from an electronic instrument expert. After the design was declared feasible by an electronic device expert, the process of making the LINK-SMS tool was carried out according to the approved design, after the manufacture of the LINK-SMS tool was completed, small group testing was carried out on 5 people, from teenagers to parents of students or research subjects, then after conducting a small group test if the LINK-SMS tool got

positive results from community statements and comments, it was continued by carrying out a large group trial (field) consisting of 15 communities.

The results of this research and development are data on the results of validation of electronic devices tested by lecturers who are experts in the field of electronics, and data on the results of small and large group (field) trials from the community. "LINK-SMS" Electronic Appliance Control Product has been successfully designed and used as a product or remote control device for home electrical appliances using SMS or applications. Based on the test results of the electronics expert on the LINK-SMS tool for Home Electrical Appliance Control Products, it was found that 95.45% of the qualifications were very feasible, (2) The results of the small group test 90.85% were very good qualifications, and (3) The results of the large group test 91.80% in very good qualification. So that the LINK-SMS tool for Home Electrical Appliance Control Products can be used as a tool capable of controlling home electrical appliances remotely using SMS or applications. LINK-SMS can be of positive benefit to the community because with this tool the community will be more assisted in controlling household electrical appliances.