

2003 TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Engineering

PROJECT TITLE : BALANCE CONTROLLER(B.CON)

AWARD : Third Award

SCHOOL : Sekolah Menengah Sulaiwan

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COUNTRY : Malaysia

BLALANCE CONTROLLER(B.CON)

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MOHAMMAD NURDIN BIN BADRI(TEACHER)

Balance Controller or B. Con is the latest millennium innovation that is very safe and effective in solving balancing problem of electrical equipments and furniture caused by uneven surfaces. This system includes syringe, liquid, and control panel. It is operated manually with the help of an indicator liquid B. Con does not only solve the balancing problem but it is also equipment that could prolong the durability of the electrical equipment or furniture.

The objectives of this invention are to set up the best result for gravity effect, easy to control, safety, useful and systematic. Besides that, it can solve the balancing problem of electrical equipment, furniture and others. Furthermore, it is also used to maximize the longevity of electrical equipment and furniture such as the refrigerator.

From our observation, most of the electrical equipments users like housewives have a problem to balance their electrical equipments like washing machine and refrigerator due to uneven surface of the floor. Hence housewives might face the possibility of having their washing machines and refrigerators damaged. Most of the users try to solve the problem by putting bricks, paper, wood or rubber under the base with the hope that it might balance the stand of the equipment. However, this solution is not systematic and dangerous. Therefore, we have created the latest innovation that can solve this problem as well as showing that this innovative idea is efficient, systematic, safe and easy to use.

The Balance Controller is made up of several different parts, which are the base, syringe, host, a "T. connection", indicator liquid and control panel. The base is used to operate the B. con automatically. Then the syringe is used to support the massive weight of the electrical equipment (up to 60 kg) and it is also water resistant. The hose is used to stream the liquid between the four syringes. "T Connection" is made of water resistant components and it is used to connect the four hoses together. The indicator liquid is an acrylic panel that stores liquids(water base or oil base). It is used as an indicator to show the stability of the electrical equipment. The final part is the control panel that is used to switch the B. con on and off and, to control the liquid from moving from one side to the other side.

Our research has found out that people have to balance their electrical equipments (due to uneven surface) with bricks or pieces of cardboards. Therefore, the Balance Controller is a suitable equipment to solve this balancing problem.

評語

本作品是一個四腳平台的水平控制器，以 T 型管及液體流動來維持台面之水平，是一項簡單實用的設計。