Students Innovative Project Report

DESIGN AND DEVELOPMENT OF MICROCONTROLLER BASED AUTOMATIC TENDER COCUNUT CUTTING AND PUNCHING MACHINE

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BONAFIDE CERTIFICATE

Certified that this project Report Titled "**DESIGN AND DEVELOPMENT OF MICROCONTROLLER BASED AUTOMATIC TENDER COCUNUT CUTTING AND PUNCHING MACHINE"** is submitted by **Mr. Perarasan .P , Mr. Sameer Ahamed .H ,Mr. Sathya .R** , who carried out the work under our supervision. Certified further that to the best of my knowledge the work reported herein all the guidelines prescribed by the University was followed during and after implementation of the project.

SIGNATURE OF MENTOR

(Dr .P. ANBALAGAN)

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ABSTRACT

Tender coconut water is get from the green coconuts. Unlike coconut milk, the tender coconut water/juice is fat-free and low in calories. It is also high in electrolytes like potassium and low in sodium. Tender coconut is rich in potassium and hence helps keep the kidneys healthy. It acts as a diuretic to flush extra water out of the body and also prevents kidney stones. Cutting and punching process of this coconut is not very simple and easy for everyone. So that we have designed this project to help a unskilled person to utilize this coconut in frequent basis. This research work includes the study of problems that were faced during the cutting of young coconut in commercial purpose. By studying such problem the need of efficient coconut cutting machine was developed. If the developed machine is commercialize the problem of use of coconut water at hotels and restaurants will get benefited. The purpose of this research is to develop, test, and evaluate the young coconut fruit cutting machine. This research work include the description of such a machine which will not only used to cut the coconut but also can be used to drink coconut water at parks and beaches. Here we used a cutting machine and a cutting tool to cut the coconut where we have to punch. A disc cutter is a specialized, often hand-held, power tool used for cutting hard materials. Pneumatic cylinder is used here to hole the coconut after cutting. Double acting cylinder is used for this procedure. Double-acting cylinders have a port at each end and move the piston forward and back by alternating the port that receives the high-pressure air, necessary when a load must be moved in both directions such as opening and closing a gate. Air pressure is applied alternately to the opposite ends of the piston.

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