

# **COCONUT MEAT/WATER VENDING MACHINE.**

by

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# Chapter 1

## Introduction/Motivation:

In this fast progressing world and a busy life people generally ignore their health and suffer through lots of diseases which are caused due to their ignorance towards the healthy food. Thus the human race tends to buy the food which is available quickly and affordable rates[?].

Our objective is to introduce a machine which will serve us with fresh and healthy coconut water or coconut meat, which can be easily installed in compact places[?].

## Chapter 2

# Market Research / Literature Survey:

There is a existing similar Coconut vending machine system which provides only coconut water implemented in Malaysia, this machine provides only the Coconut water and not the Coconut meat .The existing machine also doesnt serves the customer with affordable price because of its infrastructure. The production of any vending machine is very vast and also in profitable condition for the stakeholders. This also cuts the need of any man power at the installed place because the machine is automated. With availability of sea areas the Production and consumption of the coconuts are more hence will boost the need of the Coconut vending machine.

# Chapter 3

## Hardware requirements:

1. coin module
2. Relays
3. stepper motor
4. servo motor
5. conveyor belt
6. drilling mechanism
7. gripper
8. cutting mechanism
9. controller
10. coin module
11. Relays

## Chapter 4

### Software requirements:- Arduino IDE

Implementation: By Inserting the valid coin into the coin module, the customer will be able to select the suitable option 1.Coconut water 2) Coconut meat 3) Both. Accordingly the Relay 1 will be triggered and hence the coconut from the stalk will move towards the process of drilling and scraping by using the conveyor belt. The next step includes the drilling of Coconut , Relay-2 will be triggered by 3sec delay this will turn on the drilling of coconut by creating proper hole by which the water from the coconut will be taken out into the available serving bowl. During this process the Coconut will held perfectly by the gripper (arms) After drilling the coconut further moves for opening it completely by the use of marble cutting, here Relay-3 will be triggered by 3second delay the gripper holds the coconut which will be sharply cut by cutting mechanism. On cutting the Coconut the next process includes scraping by which the coconut meat is evacuated and collected in serving plate which will be further served to the customer. If the customer need only coconut water then the mechanism of scraping of Coconut meat is skipped. Also if the customer needs only the Coconut meat the drilling mechanism is skipped vice-versa.



# Chapter 5

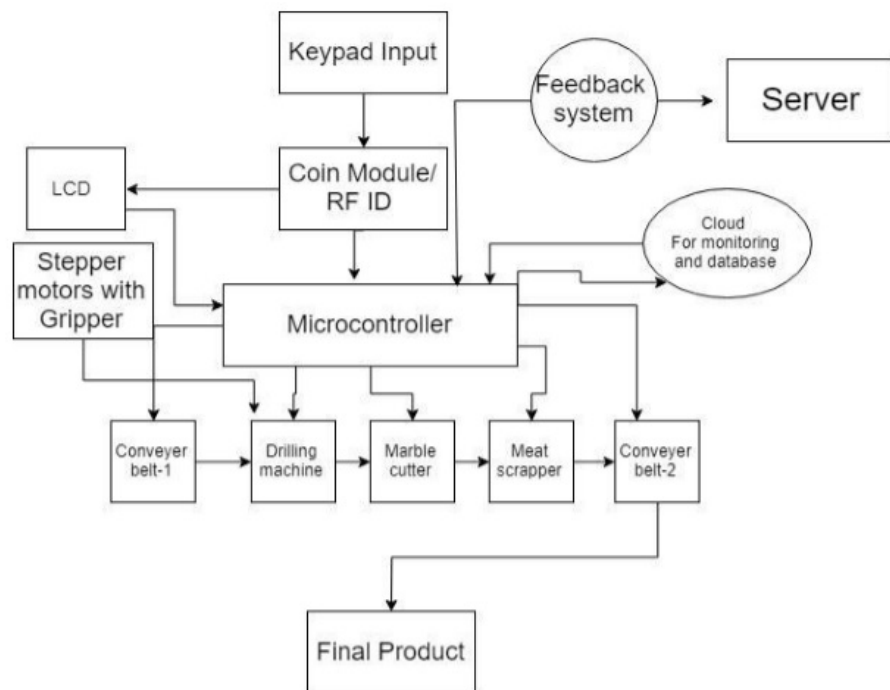


Figure 5.1: Block Diagram [?].

# Chapter 6

## Feasibility

Currently there are many vending machine available such as cold food vending machine, snack vending machine, soda vending machine etc. But looking for our health point of view this vending machines are unhealthy and also does not provide good future causes and its effects. In order to minimise this problem and provide good and healthy health management we came up with the idea of Coconut meat/water vending machine. This machine is a small compact system which can be easily implemented in Malls, Hospitals, Railways stations , generally the places where people trend to buy food on the go with a very less time and at low cost. Also the coconuts are naturally available this also overcomes the product buying cost for the machine stalk for the stakeholders. This machine basically is a serving machine by skipping the man power needed for the same which sometimes also causes injury while cutting the Coconut. Our automated machine will help them to have the fresh coconut water and healthy coconut meat.

# Bibliography

<https://patents.google.com/patent/WO2018033937A1/en>

[https://www.youtube.com/watch?v=nhPG6tC\\_TKU](https://www.youtube.com/watch?v=nhPG6tC_TKU)

<https://www.healthline.com/nutrition/coconut-meat>

<https://www.medicalnewstoday.com/articles/318394.php>

<https://bangaloremirror.indiatimes.com/news/state/coconut-grating-a-win-ks-job-thanks-to-the-new-gizmo/articleshow/50988002.cms>