Abstract

Most of us enjoy drinking tea, considering it low in price, healthy and relaxing the mind and body. Tea is a very popular drink in Sri Lanka. Since it is there is not a single person who has not drink a cup of tea. The project is to help people enjoy drinking tea easily, with a less time spending and with various types of tea.

Automated Tea Maker is a vending machine that can make a full cup of tea with no interference of a touch of a human. But, Vending machine is a machine that dispenses small articles such as food, drinks or cigarettes when a coin, bill or token is inserted.

The first stage was brainstorming, visualizing the idea, forecasting all the needs for the project and researching how other machines work.

Once the general outline was set, a deeper research was held. A comparison was held between most available alternatives that can be used in the project. After the researchers the decisions were made for which specific components are to be used.

Selecting the materials were the other deep researchers carried out. Since this is a food item, and according to the country rules and regulations such as ISO standards, the materials must be approved for food. Using the robotic arm made easy for preparing the different types of tea. It also gives an attraction. The design of the machine was carried out by SolidWorks software.

A sequence of operations were then carried out to arrange the priorities and set the guidelines in the programming. Electronic, Mechanical, Electrical and software control implementations were also carried out all along in parallel.

The programme and electrical work were integrated together and tested on simulation program and on board as well in many times to ensure accuracy and precision.