

Coin operated vending machine based on microcontroller



average vending machines are commonplace at railway stations, airports, fast-food restaurants and even in companies. Press a switch and the machine delivers a cup of your favorite drink. This looks quite a simple operation but has a very complex logic behind it: It involves use of twelve precision timers and four counters apart from physical devices like display, solenoid and motor to deliver water and premixed tea/coffee/soup powder in exact quantity for better taste and in exact sequence.

This has become possible because of the use of micro controllers, which allow compact size, higher reliability, lower cost and multiple functionalities. This tea/coffee/soup vending machine controller uses Free-scale latest AT89S52 micro controller chip. The controller is programmable and user friendly. You can set the quantity of the beverages through a button switch provided on the front panel of the controller as per your requirements. Thus, cups of any size can be filled at any time. But you can insert a 10RS.

Coin in the system then is working. For human beings, recognizing if a coin is real is pretty easy. We can look at the coin, weigh it in our hand, feel the temperature, listen to it hit the floor, etc. If someone handed you a coin replica made of plastic, you would immediately know it is fake even if it looked authentic to your eyes. If someone handed you a blank steel slug, it would obviously be “ not a coin” because it wouldn’t look like a coin at all. What we take for granted as humans is not so easy for a vending machine.

A vending machine needs a relatively inexpensive way to detect if a coin is real. Circuit Diagram: Block Diagram: <http://ayusdumaru.blogspot.in/p/vending-machine.html> <http://www.docstoc.com/docs/134527341/Coin-operated-vending-machine> <http://www.scribd.com/doc/13916969/Ece-10-https://assignbuster.com/coin-operated-vending-machine-based-on-microcontroller-essay-samples/>

Documentation-Vending-Machine Be it schools, colleges or commercial establishments, vending machines, also known as automatic retailing, are everywhere. Most of the time, vending machines are used to sell beverages like tea, coffee and sodas, candies, snacks, gumballs, lottery tickets etc. to people. If you look at the history of vending machines, it is believed that the first such machine was actually invented way back in 215 BC by a Greek mathematician and used in Egyptian temples to dispense holy water! Thereafter, the first commercial vending machine was installed in 1880 in England, which was coin operated and sold postcards. It was only in the year 1888, that vending machine business made an entry into New York, America by way of the Thomas Adams Gum Company, which installed these machines at the subway platforms in New York City and sold gum.

After that, there has been a no looking back, with everything, right from postcards, cigarettes, sodas, snacks, being provided through them to the customers, with just the push of a button! People would have thought that there can be nothing as convenient as these machines, but now, looking at what the vending machines of the future promise, this thinking will certainly get changed. Let us know something interesting about the future vending machines. Machines that Recognizes Age and Sex!

Believe it or not, but there are vending machines installed at a Station in Tokyo, Japan, which can actually recognize a person's age and sex and suggest options accordingly. They have inbuilt cameras which recognize the activities taking place outside the machine. This machine comes with a 47-inch touch panel display, instead of the push-button system which are the usual fare with vending machines. They are controlled by a centralized

server, which are in turn monitored by the vending company. When a customer comes in this machine's vicinity, images of various drinks are displayed on the screen.

The machine will sense the customer's age and sex and then recommend a few drinks according to that. Also, if the customer wants some more information on a particular drink, such as its nutritional information, they can actually zoom in and get it! These machines are godsend for marketers as when nobody is within a ten foot radius of these machines, their screens display advertisements! No More Credit Cards! A Massachusetts company who is into manufacturing vending machines, proclaims that soon there will be biometric vending machines introduced in the market.

These biometric machines will recognize a person through his fingerprints. Through these customers can actually connect a credit card to the imprint of their thumb! The Massachusetts company predicts that such machines, which make the customers feel engaged will be the new future of vending machines. There are also some talks going around that certain vending machines are being manufactured and tested which will allow retinal scans of the customers. The customers will thus be recognized through their retinas and thereafter, charged for their vending machine purchases.

A very useful feature of these vending machines, for companies who have installed them, is that they will come with Ethernet connections. This will enable them to recognize real fast when the machine needs to be restocked. Also, if the machine is somehow not working properly due to a coin being stuck in it, the monitors will report it immediately and the same fault can be corrected within no time. It is believed that these machines will get <https://assignbuster.com/coin-opreated-vending-machine-based-on-microcontroller-essay-samples/>

installed within the next one year. Looking at their benefits, they are indeed a "win-win" for customers, companies as well as advertisers!

Read more at Buzzle: <http://www.buzzle.com/articles/vending-machines-of-the-future.html> The Advantages and Disadvantages of Vending Machines Vending machines are the most easy to use produce of the recent years. A cashier is ultimately unnecessary when it comes to vending machines, and yet it delivers food of all sorts. All you have to do is to fill the coin slot with the right amount of money, press the button according to what you desire to obtain, and then it comes right out of the machine. Pressing some button is all that it takes for you to gain satisfaction whenever you are hungry.

It was already several decades back when the concept of vending machines came to life; it was when a mathematician put a coin in a machine slot, which eventually handed out water. During the industrial era, the use of vending machines have been taken advantaged by the public for the reason that these machines were already positioned in universities, hallways, and in workplaces. It is for the reason that vending machines provide you with your necessities almost instantly, that people consider it as a very much reliable choice.

Not all people think of that, unfortunately; there are those who consider vending machines as tools that let you waste your hard-earned money to its costly products. People also are indeed dreadful when the item that they want to purchase gets stuck in the machine. This further proves that vending machines can both be beneficial and a waste of time for some people. The greatest benefit of these vending machines is that they are very versatile

and convenient. When you find yourself in the middle of closed shops, with a hungry stomach, a vending machine can really come in handy.

When you do not have the time in your hands, and you really need something to eat, these vending machines can be the sole answer to your problems. When you talk about vending machines, costly items always come with it, making this one of its major disadvantages. Compared to items being sold in other stores, those items that are on vending machines are way on the high-priced spectrum. Therefore, if you want to, then do not stop yourself from spending so much. Another disadvantage is the harmful snacks that they offer.

Teenagers almost always patronize these unhealthy snacks that are constantly available in vending machines. Studies have shown that a great deal of foods and beverages in these machines are low in nutritional values. After knowing the different advantages and disadvantages of vending machines, only you can make the final decision whether or not you still want to continue using it. Some people may have conflicting ideas when this topic arises. Nevertheless, what matters most is that you learn to stand on what you believe in. Besides, these machines have been designed to increase our comfort, with no other harm intended.