

Technology Exploration and Social Innovation-1

MEDICINE VENDING MACHINE

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UGC- AUTONOMOUS

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PROBLEM DEFINITION

- ❖ No health care system in the world is stable.
- ❖ In rural areas, there is little anonymity; social stigma and privacy concerns are more likely to act as barriers to healthcare access.
- ❖ Rural residents can have concerns about seeking care for mental health, substance abuse, sexual health, pregnancy, or even common chronic illnesses due to unease or privacy concerns.
- ❖ The running cost of extensive health care infrastructure is high and can not be met with the current level of expenditure.
- ❖ After 62 years of independence essential expertise such as handling medical emergencies there is no proper medical practices and cause in a lot of diseases with increasing pollution.

PROPOSED IDEA

- ❖ The medicine vending machine is a machine followed by instructions given by the user according to this convenience and pills/tablets according to his diseases come out in less cost .
- ❖ This idea is proposed by keeping the eye on poor people ,financial problems and for rural areas.
- ❖ This idea may create little awareness on health may protect the people from some diseases.

COMPONENTS

- Arduino
- Keypad
- Servo motors
- Battery
- Display Board
- IR sensor
- Connecting wires
- Jumpers

ARDUINO

The arduino is an open source microcontroller board based on the micro chip at mega 328p microchip

An Arduino uno is the brain of the system which gives the problem system to the vending machine

As we all know that Arduino uno is a atmega micro controller



KEYPAD AND SERVO MOTORS



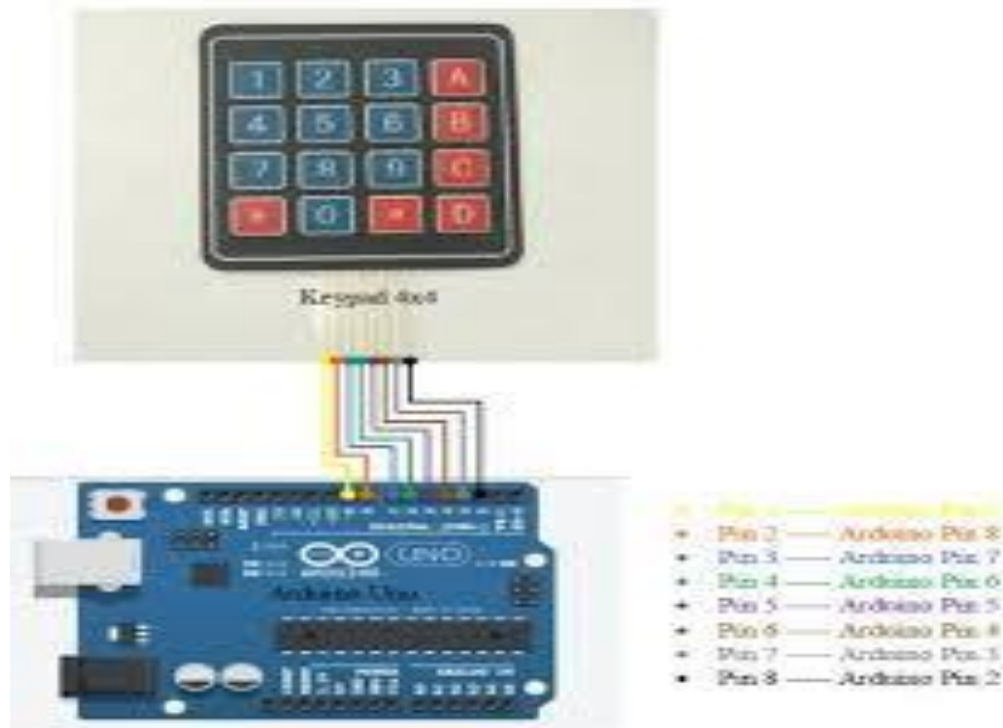
DISPLAY BOARD AND IR SENSORS



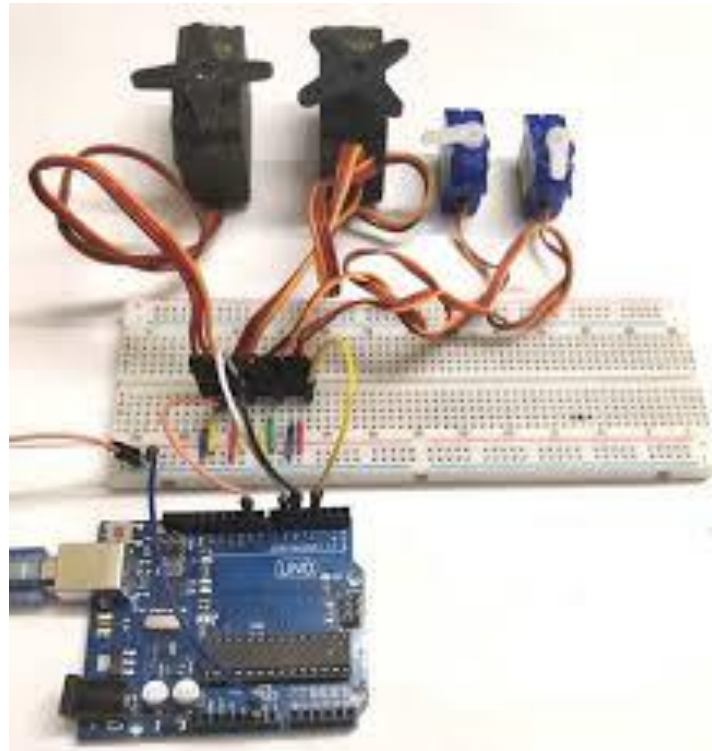
CONNECTING WIRES AND JUMPERS



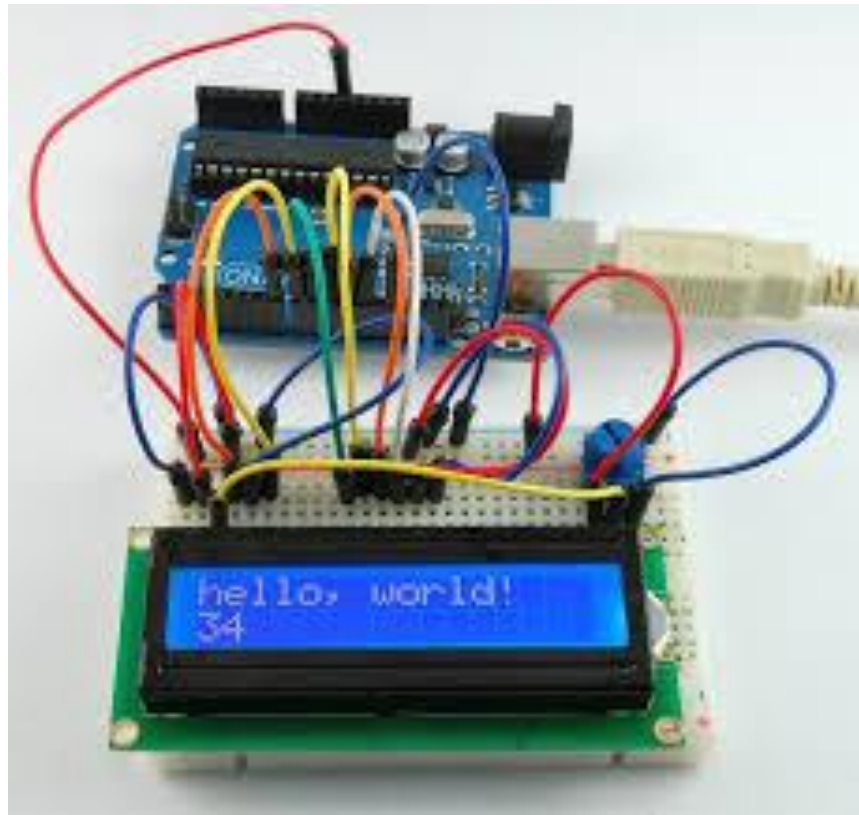
CONNECTIONS ARDUINO AND KEYPAD



CONNECTION BETWEEN ARDUINO AND SERVO MOTORS



Connection between display board aurdino



WORKING PRINCIPLE

A vending machine is an, "electronic machine used to disperse a product to a consumer after a certain amount of money has been put into the machine," as defined by Business Dictionary. A vending machine can give small business owners real extra income without cost. Most vending companies do not charge for placing machines in a business, and they split the proceeds with the small business owner.

Step 1:

- ❖ Load the vending machine. Prior to operation, a vending machine must be stocked with the products it will dispense to consumers. These products are often supplied by the vending machine supplier, who buys them wholesale and then sells the product at a retail price.
- ❖ Vending machines typically have specialized keys that a small business owner can use to access the inside. Fill each display with product and make sure the products do not become inter tangled with the vending machine.

step 2:

- ❖ Test the vending machine. To ensure the machine is properly loaded and ready to dispense, select one or several products and use both coin and paper money to pay for the items. Vending machines measure coins and read paper money.
- ❖ Each machine differs slightly, but in general, it identifies each coin with an electromagnetic field which measures thickness and diameter. Dollar bills are scanned with a laser, which transmits to a small computer that deciphers each denomination.
- ❖ It then calculates a balance and allows the consumer to make a choice of product. When the consumer chooses, electronic signals are relayed to a motor through an electronic console board which turns the spiral dispenser of the selected product. The machine then deducts from the balance the amount of the purchase.

Step 3:

- ❖ Collect the money. Vending machine providers generally do not allow a small business owner access to the money collection vault and reserve access to approved vending machine mechanics.
- ❖ These individuals visit on a weekly, biweekly or monthly basis. The vending machine mechanic inspects the inside and outside of the machine for damage and regular maintenance.
- ❖ He then opens the money collection area and reconciles the money with the transaction log. Once accounted, the mechanic splits the proceeds from the sales with the business owner.

ADVANTAGES

- ❖ This medicine vending machine is very easy and can operate same as cooldrink vending machine.
- ❖ This may be used by electrical or by the battery.
- ❖ This is very useful in emergency cases.
- ❖ This can be available at low cost.
- ❖ This is available in script mode and audio mode according to user convenience.
- ❖ This can be portable .

APPLICATIONS

- ❖ It is used to give medicines.
- ❖ It is used in rural areas ,because the people there does not go to the hospitals.
- ❖ It is of low cost.
- ❖ It is mostly useful for the old people.
- ❖ It is used at any where.

CONCLUSIONS

By the above applications and advantages of the medicine vending machine ,we can conclude that this machine is useful for every one in many ways .we can also say that if government supports this machine , we can help all the village people in our state and also in country.

REFERENCES

"Automatic Vending Machines". High beam Business. Archived from the original on 12 February 2010.

