HEALTH AUTOMATIC MEDICINE VENDING MACHINE

PROJECT REFERENCE NO.: 41S_BE_1216

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Keywords:
    Health, Temporary relief, Minor illness, Drug

Introduction:

Degrees of social status are closely linked to health inequalities. Those with poor health tend to fall into poverty and the poor tend to have poor health. According to the World Health Organization, within countries those of lower social economic strata have the worst health outcomes. Health also appears to have a strong social component linking it to education and access to information. In terms of health, poverty includes low income, low education, social exclusion and environmental decay. The poor within most countries are trapped in a cycle in which poverty breeds ill health and ill health breeds poverty. Medicine Vending Machine, could prove to be useful and hence important in developing countries like India where healthcare is almost critical.

Device can fetch out the medicines automatically for the basic common symptoms for free of cost, and the medicines provided by the machine are only for the timely relief and in emergency case, where the person has to meet the doctor further. People at rural places cannot get access to medicines that are providing to them freely by the government. The aim of this project is that people would be able to access the drugs via patient kiosks in public places such as drug stores, malls, bus / railway stations, on highways, areas where medical stores are limited. Regular replenishment can help in not only tracking usage pattern and thus taking precautionary measures but also ensure availability of drugs 24x7. The device is designed taking under concern, such as lack of poverty and illiteracy in India.

Objectives:

Diagnosis is always a concern for the people living in rural area. At the same time medicine availability also has a major impact excluding the factor about complete cure. The aim of this prototype is that temporary relief is to be given out that can give people a better chance for resisting the health from withdrawing before they are able to reach doctor. Major advantage is that people would be able to access the drugs via patient kiosks in public places such as drug stores, malls, bus, railway stations, on highways, areas where medical stores are limited.

Methodology:

The Prototype constructed so far is just for detecting general illnesses like fever, cold, headache, and vend out medicines that does not need doctor prescription. Inventory controller
controlling the inventory of drugs is critical to functioning of machine. Not only from inventory levels but also from misuse or theft cases. Sensor like temperature sensor is used. Later the input from this is used to co-ordinate with dispensing mechanisms. Based on the sensor values the corresponding dosage and corresponding medicine is vended out. In case if the user wants medicine for illness like headache that does not need detection will be vended out based on the input through the keypad/Touchpad. The proposed project is first tested for detecting illness using sensor. Later the inputs from the sensor is used to co-ordinate with dispensing mechanism.

Result and Conclusion:

The idea that was discussed in the introduction about creating a machine called HEALTH AUTOMATIC MEDICINE VENDING MACHINE is been implemented in small version. We have implemented three general illnesses such as Fever, Cold and Headache. The vending mechanism is developed in small scale. The keypad/Touchpad is provided for the user to select the medicine from the given list. In this version we have asked the user to swipe a card with unique password that is given to the user while registering. This password identifies the user as an authorized one.

From this concept we conclude that, the Health Automatic Medicine Vending Machine is technically feasible to the people. It is based on PIC micro-controller. It gives availability of medicines all the time, also in rural areas. it is very helpful. It gives ease of access also. It is sales person-less service which is based on smart card.

Prototype of Health Automatic Medicine Vending Machine

Scope For Future Work:

By implementing medical ATM, simple medical problems will be diagnosed with an easy reach. This system can be further improved to diagnose the health problem also. A central platform can be provided for patience to interact with specialists of fields through video conferencing i.e. to provide a health ATM service

One more development is that to provide automated e-emergency diagonisation and pharmacy for patients which can be meant that at the health ATM, when a card being inserted the whole body of the user will be scanned and the problem will be identified and rectification suggestions will be given. If it is unable to identify, then a specialist will be connected through video conference

The design and implementation of Health Automatic Medicine Vending Machine is described in the paper. Thus this vending machine will overcome the problem of unavailability of medical facilities at long routes train, highways rural area etc. It can also be implemented at bus depots, railway station, and petrol pumps.
Health Automated medicine Vending Machine plays its major role in hostel areas, airports, and rural areas. Implementation of this system reduces man power 24 hours availability service and also reduces time consumption.

The automatic medicine vending Machine will cater the needs of the customers with no further human intervention required. The machine is user-friendly and is very simple to operate. The customers will only have to deal with the RFID tag to be swiped to the machine which will correspond to the medicine to be dispensed. With this, labour cost will be minimized and it will also give entrepreneurs the opportunity to attract more customers with this innovation.

Automated dispensing machines decentralized medication distribution systems that provide computer-controlled storage, dispensing, and tracking of medications have been recommended as one potential mechanism to improve efficiency and patient safety. There is no doubt that these machines can enhance the efficiency of medication distribution. Automated dispensing machines provide secure medication storage on patient care units, along with electronic tracking of the use of narcotics and other controlled medicines. Automated dispensing machines enhance rest-dose availability and facilitate the timely administration of medications by increasing their accessibility on patient care units. This is particularly important in the areas where most people are inaccessible to drugs for minor illnesses.