

Smartcard with inbuilt Recharge unit water Vending machine
(Volume Based- V4.1)

Dear sir

With all due respect I (A. Mohammed Ibrahim) would introduce myself. I am the Project Manager for Brainz Infotech in Villupuram district, Tamilnadu – India At present we manufacture coin/smart card water vending machine with qualified and efficient technicians and (W.F.M) team of 20 members in a sufficient place, who does stringent monitoring towards Quality, Time Factor and Customer service. We established this company in 2001 and our first mile stone was portable coin water vending machine and in due course of time, efforts and R&D we took leap into Jumbo Coin/Smart card water vending machines. Our machines ranges from Rs.6000/ up to Rs 5, 00,000/ and

We do customize to the clients request too.

Our vending machine product has won "Best Innovation Award 2012" by Excellency governor of Tamilnadu

Intro:

This Vending machine is perfectly designed with Non contact Smartcard (RF ID) Exclusively for Flow based water vending machines. This Microcontroller Featured card operated water vending unit proves its own way by its accuracy. Unlike other vending machine control board which works with time based, this board works as volume based system. It means output dispensing water of this kind of vending machine remains constant and accurate irrespective of change in storage tank capacity.

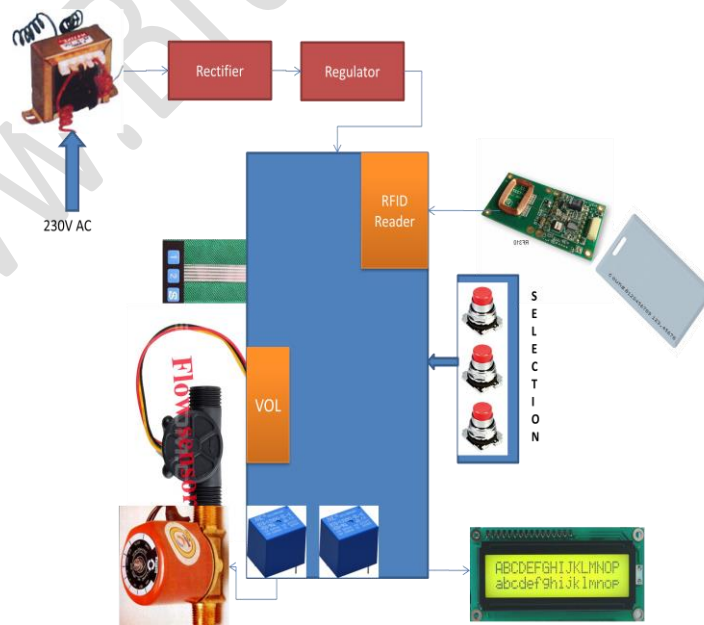
The most impressive feature of this design is that single machine can be used as both as vending and recharge unit. That is user **may not need to purchase separate recharge unit.**

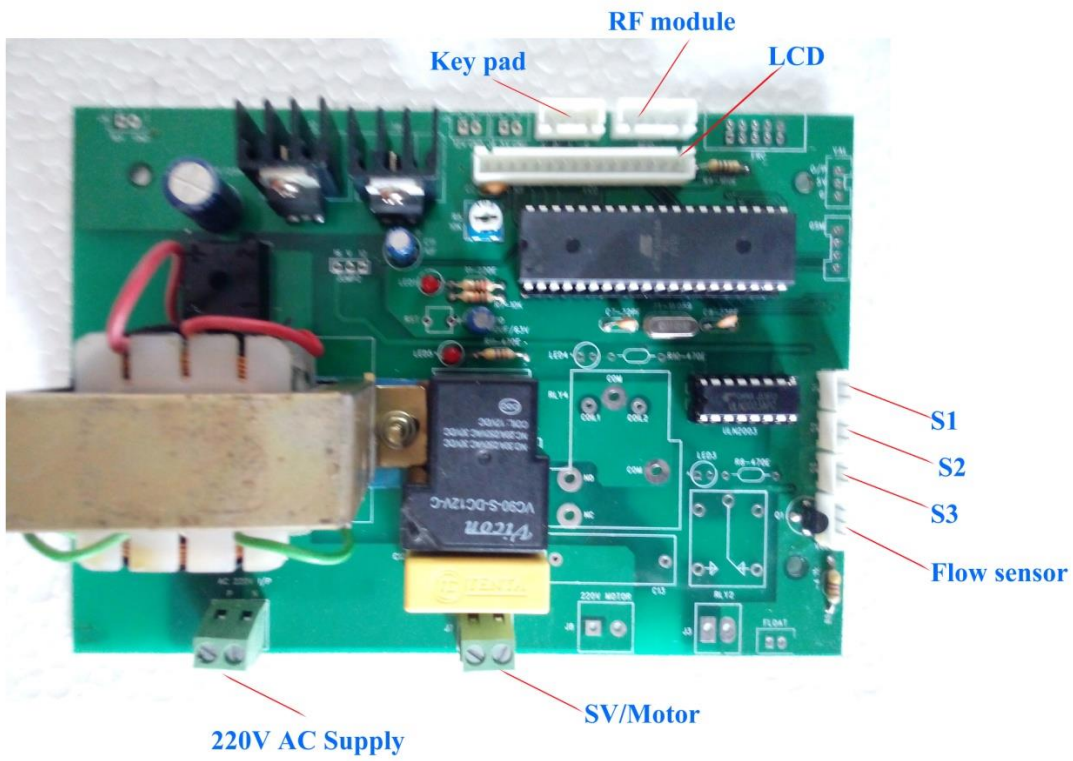
Features:

- Fully Microcontroller based Design
- Inbuilt Vending and Recharge unit
- Multiple volume with multiple choice

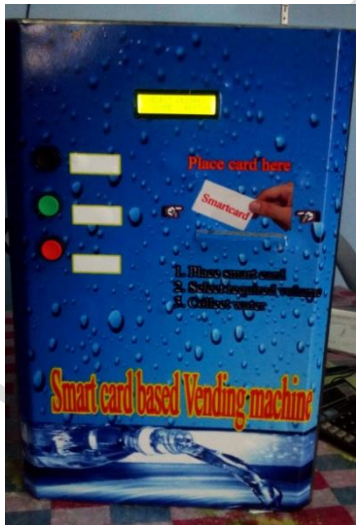
- Volume based Vending
- Due to volume based , produce accurate water output irrespective of tank level
- Non contact Smart card type
- Works on 220V AC supply (or) 12 V Battery
- 220v Relay output for Solenoid valve
- Make: Stainless steel
- Customized volume adjustment 500ml to 150 Liters
- 2 Line Alphanumeric LCD display with back light
- Inbuilt Regulated power supply
- Inbuilt 1KB EEPROM to store info about so far dispensed water
- Fine-tuned against better quality slugs and frauds
- In Built Noise filter to protect system from noise and surges
- 30 Amps Relay (220V)
- Inbuilt memory to store cash collections
- Inbuilt memory to store so far recharge rupees
- Onboard Reset
- Plug and Play
- Size : 31B* 46H * 18L cm
- PCB type: Epoxy board with Green masking

Block Diagram:

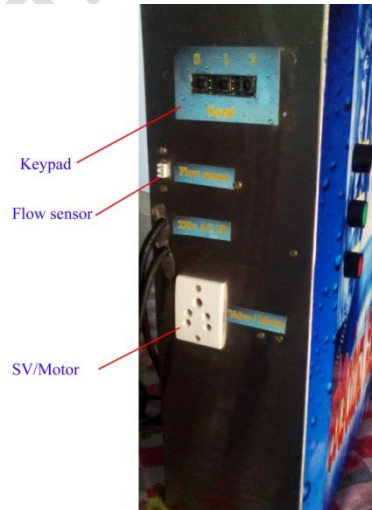




Outlook:



a. Front view



b. left side view

Vending machine setting:

Setting up the system Operation:

Keys

S >>>> Select/Set

1 >>>> Menu1/Increment

2 >>>> Menu2/Decrement

I. Setting up rupees value for each switch

1. Switch on the board
2. Now hold “**S**” key continuously to enter in to setting mode



3. Release the “**S**” key once the system enters in to Menu mode as shown below



4. Now select “**1**” for enter into currency value setting.
5. Now set INR value for **S1** by using Increment and Decrement Keys (1,2)



Don't forget to use “S” button in keypad to save the value

6. Press "S" button to save



7. Now repeat the above to set currency/Rupees value for S2 and S3



II. Setting up Water Dispensing Volume for each switch



8. By selecting Menu2 (**pressing Key 2**), you can set value of water to be dispense for Each switches

EX:



Now set Water Volume for **S1** by using Increment and Decrement **Keys (1, 2)** and press save "**S**"



Continue this process for all S1, S2 and S3

9. Now switch OFF the system and switch it ON

Recharge unit setting:

1. Switch ON the unit
2. Now hold **Master card** and press any one S1/S2/S3 to enter in to setting mode



3.
 1. Select 1 to check balance in your card
 2. Select 2 to recharge your card

***** In recharge mode you enter the amount to be recharged, that amount will be added with previous balance of the card. For example Already card balance = 10 and new recharge = 25. After recharging the total in the card will be 10+25 = 35 rupees *****

Flow sensor:



Description: Water flow sensor can be used to measure the flow of liquids, i.e. the consumption of liquids in industrial or domestic usage. This water flow sensor consists of a plastic valve body, a water rotor, and a hall-effect sensor. When water flows through the rotor, rotor rolls. Its speed changes with different rate of flow. The hall-effect sensor outputs the corresponding pulse signal. The water flow would be directly proportional to the number of measured pulses.

Connection details: Red wire is +5V Black wire is GND White wire is PWM signal output

Voltage : DC 4.5 -12V

Maximum operating current: 15 mA

Temperature: 80 C

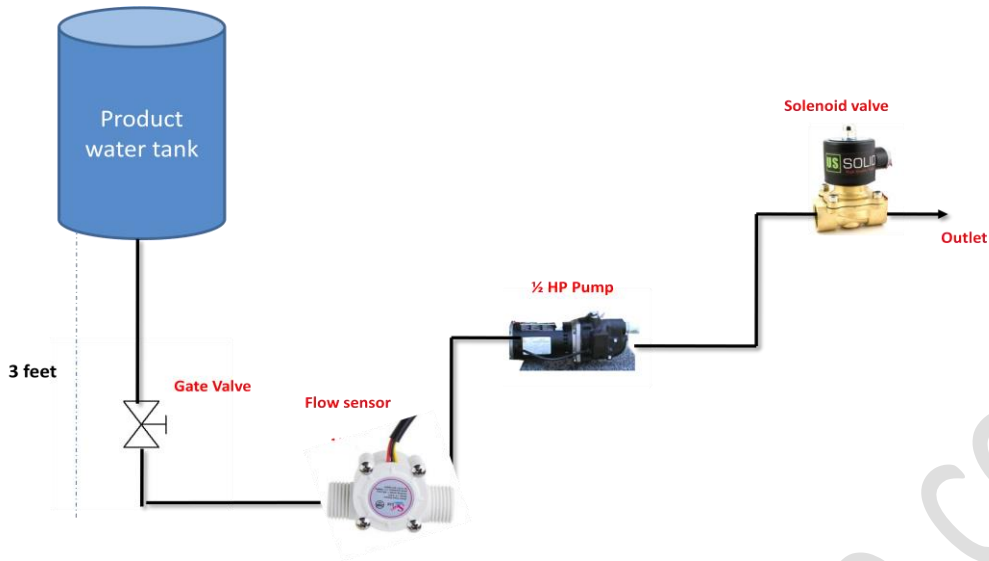
Operating humidity range: 35%~90%RH

Pressure: 1.75Mpa

Temperature: -25~+80 C

External threads: 1/2"

Connection Diagram:



Includes:

- Stainless steel cabinet vending machine
- 1/2 inch flow sensor
- 1/2 220v Solenoid valve.



Winner of CK Innovation Award – 2012

By Honorable Governor of Tamilnadu