ABSTRACT :

I have designed project entitled "DOOR SENSOR" by using masking concept which does not affect the status of others pins.

Here we describe the design and implementation of an automatic controller to the door. The door opens when they led blink is on.

Then the door closes automatically and the led is off. In the project I use atmega328 as a control controller.

The output signals of the microcontroller are connected to the switch and voltage switch. The interrupt signal can be used to stop power to voltage switch during locked condition.

REQUIREMENTS

ADVANTAGE:

1)The automatic door do not need any physical effort to open or close.

2) Automatic gates are durable ,strong and can be available in customised sizes.

3) It is very convenient to enter and leave the automatic door.

4) Low cost.

5) Easy to use.

6) Power consumption is less.

DISADVANTAGE:

1) Power failure causes inconvenience.

2) Cannot be used for security purposes.

FUTURE DEVELOPMENT:

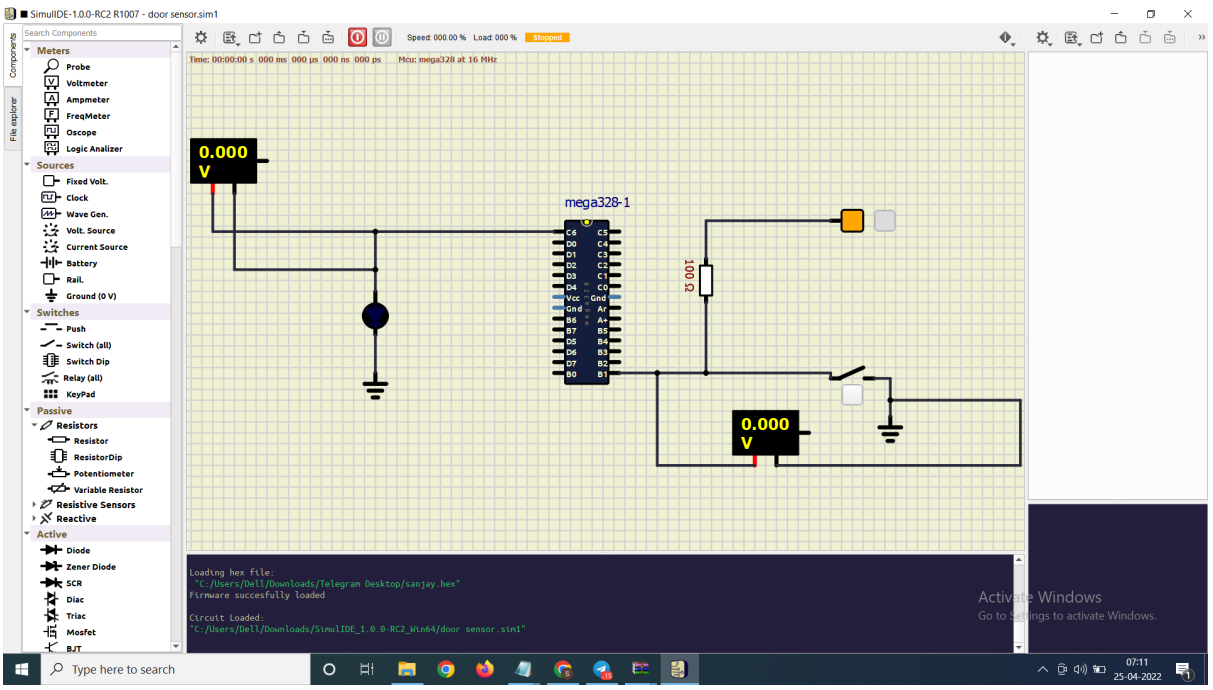
1) Microprocessor-based electronics in refrigerators and freezers allow better control over various functions,

allowing designs to better enable energy efficiency.

2) Refrigerators equipped with a microprocessor control unit are compatible with the use of non contact-type sensing

technologies such as reed switches/sensors and Hall effect sensors.

DESIGN:



COMPONENTS :

1) Atmega 328
2) Voltmeter
3) LED
4) Fixed voltage
5) Terminals
6) Resistor
7) Switches

1) Atmega 328 :

The ATmega328 is a single-chip microcontroller created by Atmel in the megaAVR family (later Microchip Technology acquired Atmel in 2016). It has a modified Harvard architecture 8-bit RISC processor core.

2) Voltmeter :

voltmeter, instrument that measures voltages of either direct or alternating electric current on a scale usually graduated in volts, millivolts (0.001 volt), or kilovolts (1,000 volts). Many voltmeters are digital, giving readings as numerical displays.

3) LED :

light-emitting diode is a semiconductor light source that emits light when current flows through it. Electrons in the semiconductor recombine with electron holes, releasing energy in the form of photons.

4) Fixed Voltage :

In short, a fixed voltage type is a variable voltage type that integrates the external resistor.

5) Terminal :

A terminal is the point at which a conductor from a component, device or network comes to an end. Terminal may also refer to an electrical connector at this endpoint, acting as the reusable interface to a conductor and creating a point where external circuits can be connected.