PC BASED VISITOR COUNT MONITORING FOR SHOPPING MALLS

AIM:

Design and Development of PC based visitor count monitoring for shopping malls.

PURPOSE:

Counting of people in shopping malls and auditoriums is important for easy managing. Based on people count we can save power by controlling cooling systems like centralized AC. Also this statistical information will useful for many applications like stock managing, employee managing…etc. If count information stored in PC then it will be accessed from anywhere. We want to design and develop this kind of system that can count incoming count and outgoing count , displaying on LCD as well as in PC. The proposed project title is PC based visitor count monitoring for shopping malls using Arduino.

DESCRIPTION:

Arduino and USB-TTL connected with each other through UART communication port. Two IR sensors connected to Arduino digital pins. 16x2 LCD display connected with Arduino through digital IO pins.

WORKING:

First IR sensor installed at shopping mall entry place and Second IR sensor placed at exit of shopping mall. When person entry then first IR sensor will be active and gives signal to Arduino. Arduino has firmware code that has variable of counter, this count will be increased when first IR sensor gets activated. If second IR sensor activated then counter variable will decreased its count number. Also this count value will be displaying on 16x2 LCD display and transmit to PC through USB-TTL cable. PC has C# software application that will display count data on graphical user interface.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontrollers	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
Communication Cable	:	USB-TTL
Count Sensors	:	IR sensors
Power Source	:	12VDC adaptor

SOFTWARE:

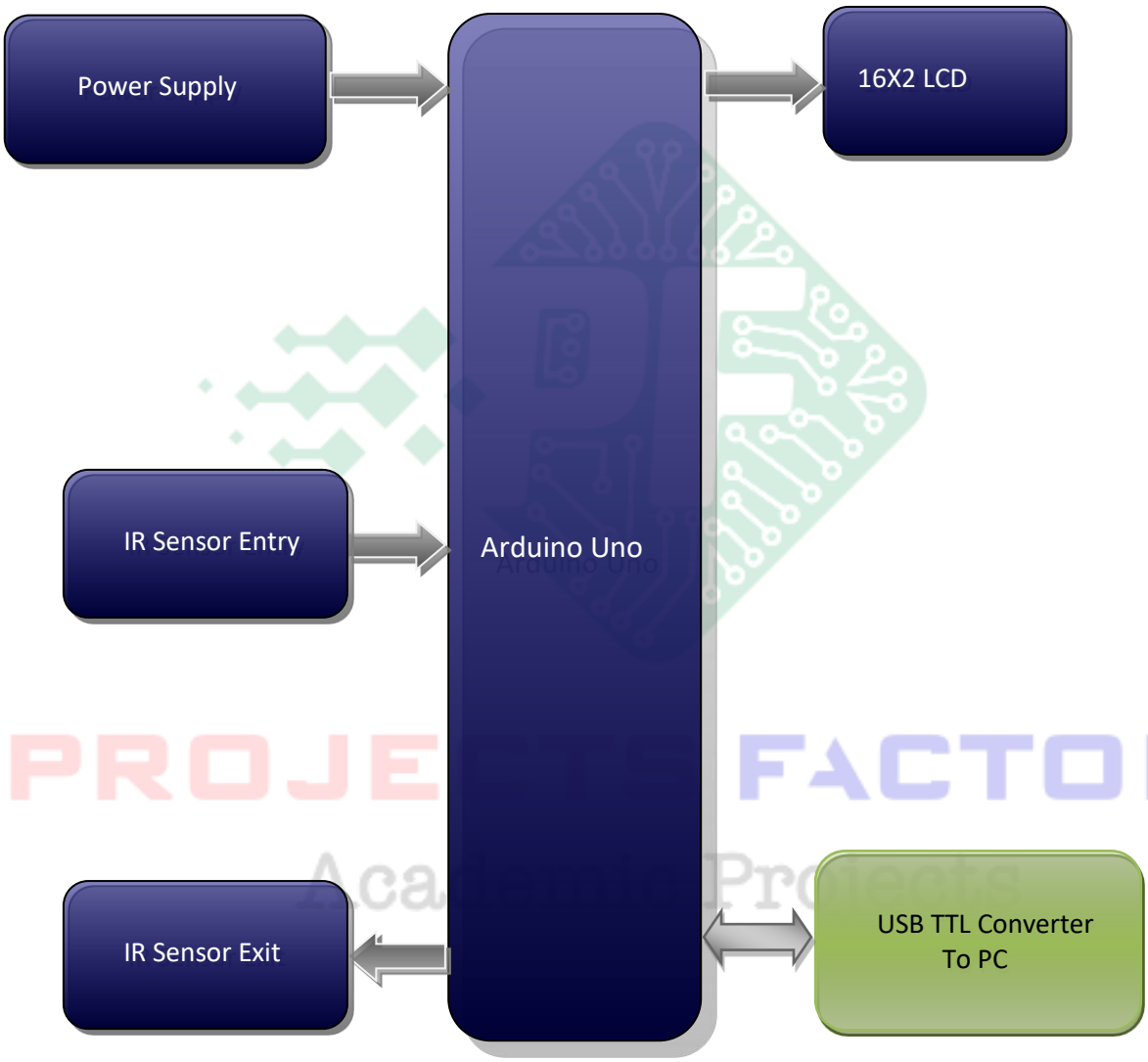
Arduino IDE

Proteus based circuit diagram

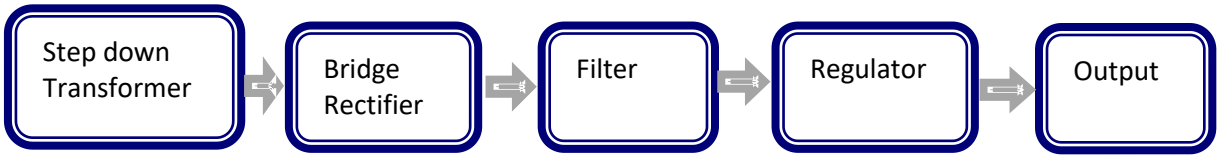
APPLICATIONS:

- Visitor Counter Applications
- Crowd Management Applications
- Power Saving Applications

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERD:

- We have covered Arduino and PC interface
- IR Sensors interface