

MOTOR STATUS USING ARDUINO UNO

Description

In this project, we are controlling the DC motor status using Arduino uno board. The motor will be turned on and turned off, when we press the push button and that will be displayed on the LCD display. DC motor will be connected to the one of the output pin numbers and the push button is connected to the one of the display pin numbers of the Arduino uno board. When the push button is pressed the Arduino board read the input and send the signal to DC motor to turn on and that will be display on the LCD display shows states of the motor “on”. When we released the push button the Arduino board send the DC motor to turn off and that will be display on the LCD display shoes states of DC motor “off”.

Block Diagram



Input and Output Table

S.NO	Description	Name	Type	Data Direction	Spectification	remarks
1	Button Pin	PB1	INP	D1	Digital	Activity High
2	LCD RST	RS	OUT	D0	Digital	Activity High
3	LCD EN	EN	OUT	D0	Digital	Activity High
4	LCD DATA PIN	D4	OUT	D0	Digital	Activity High
5	LCD DATA PIN	D5	OUT	D0	Digital	Activity High
6	LCD DATA PIN	D6	OUT	D0	Digital	Activity High
7	LCD DATA PIN	D7	OUT	D0	Digital	Activity High
8	Motor	PD1	OUT	A0	Analog	Activity High

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Source Code

```
#include <LiquidCrystal.h>
cost int Rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;
Liquid Crystal lcd (Rs, en, d4, d5, d6, d7);
cost int button Pin =A5;
cost int motor Pin = 1;
int motor State = 0;
int last button State = HIGH;
int button State;
void setup ()
{
  lcd. Begin (16, 2);
  Pin Mode (button Pin, INPUT);
  Analog Write (motor Pin, motor State);
  update LCD ();
}
void loop ()
{
  button State = digital Read (button Pin);
  if (button State! = last button State) {
    if (button State == LOW) {
      motor State = 255 - motor State;
      Analog Write (motor Pin, motor State);
      update LCD ();
    }
  }
  Last Button State = button State;
}
void update LCD ()
{
  lcd. Clear ();
  lcd. Set Cursor (0, 0);
  lcd. Print("motor");
  if (motor State == 0)
  {
    lcd. Print("OFF");
  }
  else
    LCD. Print("ON");
}
```