**DC Motor :**

#include <reg51.h>

sbit motor\_pin1 = P1^0;

sbit motor\_pin2 = P1^1;

sbitbutton\_reverse = P2^0;

bit motor\_direction = 0;

void delay(unsigned int time) {

unsigned int i, j;

for(i = 0; i< time; i++) {

for(j = 0; j < 1275; j++);

}}

void low\_speed\_delay(unsigned int time) {

unsigned int i, j;

for(i = 0; i< time; i++) {

for(j = 0; j < 100000; j++); // Increase delay significantly to slow down motor

}}

void main() {

motor\_pin1 = 1;

motor\_pin2 = 0;

while(1) {

if(button\_reverse == 0) {

delay(50);

while(button\_reverse == 0);

motor\_direction= !motor\_direction;

if(motor\_direction == 1) {

motor\_pin1 = 0;

motor\_pin2 = 1;

} else {

motor\_pin1 = 1;

motor\_pin2 = 0;

}

delay(50);

}

motor\_pin1 = 1;

motor\_pin2 = 0;

low\_speed\_delay(10); // Motor ON for a long time to achieve low speed

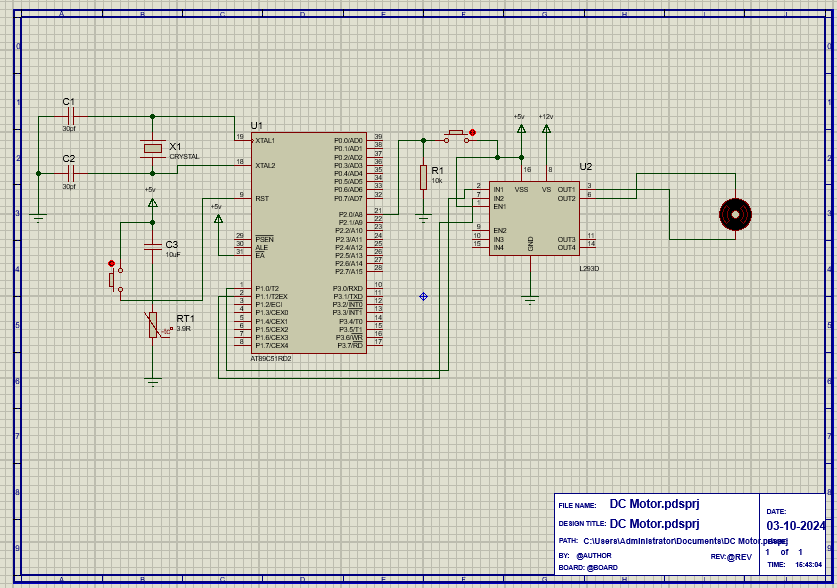
motor\_pin1 = 0;

motor\_pin2 = 0; // Motor OFF to simulate slow rotation

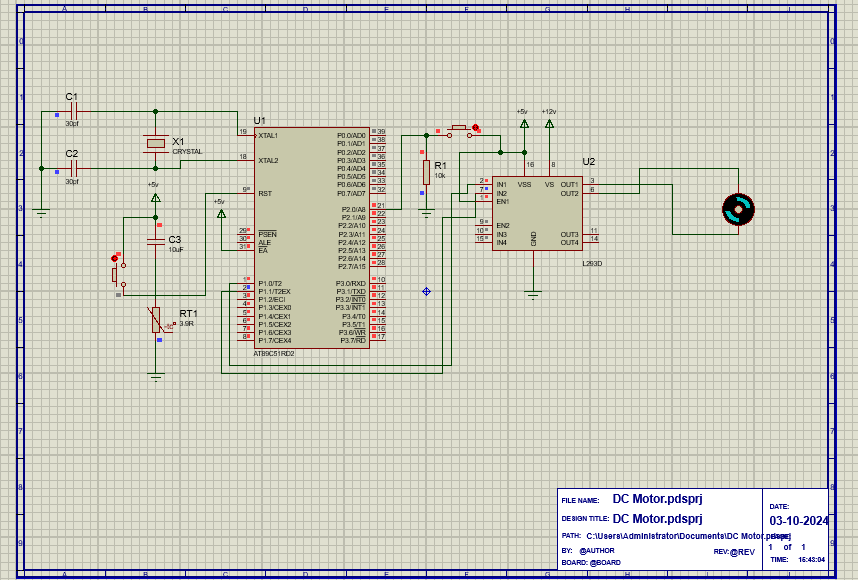
low\_speed\_delay(10); // OFF delay to reduce effective RPM

}}

**Interfacing Diagram :**

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**Output:**

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