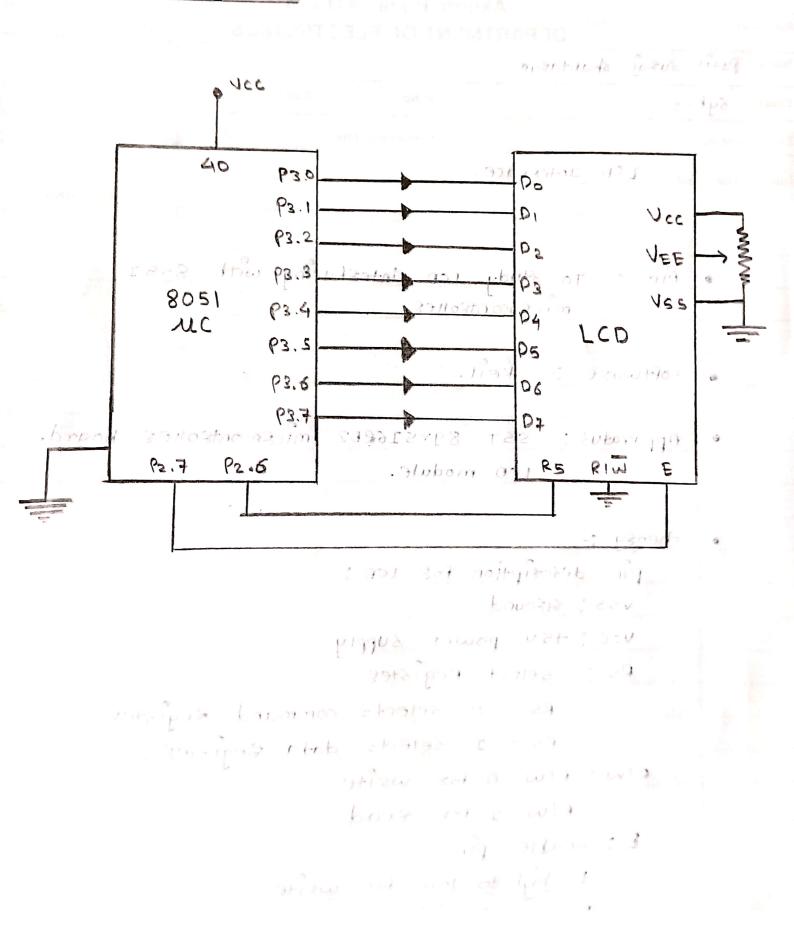
## Dr. D. Y. Patil Unitech Soceity Dr. D. Y. Patil Science & Computer Science College, Akurdi, Pune - 411 044

## **DEPARTMENT OF ELECTRONICS**

Name: Pat	fil sueaj shantaeam.	
Class: 54	Roll No. : Batch :	
Experiment N	No. : Performed Date : / /20	
Title of Experi	riment: LCD Intelface.	
		REMARKS
A .		
	• Am: - To study LCD interfacing with 800 microcontroller.	51
	software: - Keil.	
	,	
6	Apparatus: - SST 89x516RD2 miceoconteolles	E boand,
	LCD module.	
	bin gerceibtion tog rco:	
	VSS: GEOUND	ļ=
	VCC; +5V POWER SUPPLY	
	Rs :- select Registee	- 4
	RS = 0 selects command Regist	<del>10</del> 8.
	RS = I Selects data Eegistee.	
	KIM: KIM=0 LE MEITE	
	RIW= I FOE EPAD	
-	E: Enable pin	
	E high to low for write.	
	E 10W to high for read.	
	DBO DB7 ! Data lines	
l		18

## crecut Diageam :-



		11
•	LCD command co	des bib to mamay off 110 horas.
		eq , the object of year 18
160	coge (yex)	command to LCD instruction register.
1 .	1.	clear display screen, to my
	2.	letuen home.
	4.	shift ruesoe to left
	5	shift display reight minimum
1. 140		Shift ruesoe to eight
1 - 1-		butons shift-taisplay leftimes bro
	18 to silo itiai	pisplay off, cuesoe off
rite	romen has a	· Moisplay off groussos on ? ~ ~
	101 ) H. 10	huldgisblan out cassos off oxo
	£ to	display on, cuesoe blinking.
1 1/4/	1 1 f 1 1 60 30	display on, cuesos plinking.
	10	shift cuesoe position to left.
	14	shift rueson position to right.
	18	shift the entire display to the left.
	IC	JAIFT The entire display to Eight.
risk	18 80-1 WOL 3	
	CO	force cursor to beginning of 2nd line.
	+ 38 + bapan	1/2 lines and 5x7 mateix
11-12	sol of the	hote vin orizon hosa con with
		. Okob ) A
	Algoeithm :-	
٦.	54084.	PI gett of chob gett govern
2.	initialize the	command are eay,
11-31		data assay.
4.		elements of command array.
ゞ.	copy the com	nand to the P3 ! 10
6.	initialize RS=0	, give high to 10W pulse to Enable.
	10 mm	

	7	Read all the elements of data affay.
-		copy the data to the P3.
-	9	
	10	
	-	round aspect
	-	Steps for programming !-
	-	=ntializing. ICD
	-	To initialize LCD to the 8052 the following instruction
		and commands age to be embed in to the function.
	-	OX38 is used toe 8-bit dodg initialization.
	-	oxoe for making too display on and cursor blinking.
	_	OXOI for clearing the display of the LCD,
-	_	. 0x06 For whift cursor to right.
	_	.0x84 for positioning the cyesor at APth position
		of First line, we think
	1	riple of political to the title
9-	•	sending commands to the LCD.
	+ /=	E=1; enable pin should be high.  RS=0, Register select should be low for sending
, 1	) L	RS=0, Register select should be low for sending
-		commands.
		placing the command on the command segisters.
34.20		RIW-0; Read   Weite pin should be 100 for writing
SECULIAR SECURIAR SEC		the dota.
	~	in the second of
		welting the dodg to the LCD.
The second second	-	E=1; enable pin should be high.
W) contraction and	-	RS=I; Register select should be high for writing
-		dodg phob
and day	-	placing the dodg on the dodg registers
-		RIW=0; Read I write pin should be low for writing the dola.
9_		

```
PEOGEAM :-
 #include Leegsz. h> (1+1
 const unsigned char condword[s]= {0x38,0x0e,0x01,0x06,0x84];
 in+ 1;
 void delay-ms (unsigned int); h prists
 void main co
                                · noispinaro +
   H + 5 population of the local peop the fire
          foe (1=0; ]<=4; 1+t)
  Paste bits of the colleged to stid to stop
THE THE SET 10P2 = 0X8032/9 hapming privile 201 [ii
        delay_ms (255); the sampas browns
             P2= 0x00; 19 0106 part +112 +01
             foe (1=0; j<=4; 1++)
             P3 = dat[i];
             P2= 0x(0;
             geral-wecsza;
             P2 = 0×40 5
     usid delay-ms (unsigned int ms)
         unsigned int jok;
          foe(1=0; 1cms; 1+4)
```

	<b>{</b>
	foe(k=0; K<255; K++);
JOXO	-3-3, grangers granger with whom on the Language to me
	3 Pristing the man harpines to a
•	Result: - string displayed: "C'HELLO"?
	ir n 6 ou
•	conclusion:
97	LCD can be interfaced to 8052 wing 2/0 parts.
iij	The data bus of LCD is connected to the past os
	8051. (111); A 2 2 2 2 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
1117	control bit RIS RIW and E are connected to 3
	parts bits of PI of 8051 for
ivi	for giving rommand RIS rondition for scienting
$-\parallel$	command Register RS=0, RIJ=0, F=IL
10	for splecting down Regulater Rs.
	RS=I, RIW=0, E=D
	(1 L) 2 L 4 3 1 201
	je do na nada n
	: Li Hob 1
	is in points
	The second secon
	n + i lan was no contrata
$-\parallel$	i handar