**//square wave**

**#include <LPC17xx.H>**

**void delay(void);**

**int main ()**

**{**

**LPC\_PINCON->PINSEL0 = 0x00000000 ;**

**LPC\_GPIO0->FIODIR = 0x00000FF0 ;**

**while(1)**

**{**

**LPC\_GPIO0->FIOPIN = 0x00000FF0;**

**delay();**

**LPC\_GPIO0->FIOPIN = 0x00000000;**

**delay();**

**}**

**}**

**void delay(void)**

**{**

**unsigned int i=0;**

**for(i=0;i<=9500;i++);**

**}**

**//Triangle wave**

**#include <LPC17xx.H>**

**int main ()**

**{**

**int count,i;**

**LPC\_PINCON->PINSEL0 = 0x00000000;**

**LPC\_GPIO0->FIODIR = 0x00000FF0;**

**while(1)**

**{**

**for(count=0;count<0xFF;count++)**

**{**

**i=count;**

**i = i << 4;**

**LPC\_GPIO0->FIOPIN = i;**

**}**

**for(count=0xFF;count>0;count--)**

**{**

**i=count;**

**i = i << 4;**

**LPC\_GPIO0->FIOPIN = i;**

**}**

**}**

**}**

**//sine wave**

**#include <LPC17xx.H>**

**#include <math.h>**

**#define My\_PI 3.1415926**

**int main()**

**{**

**int count,i;**

**LPC\_PINCON->PINSEL0= 0X00000000;**

**LPC\_GPIO0->FIODIR= 0X00000FF0;**

**while (1)**

**{**

**for(count=0;count<360;count++)**

**{**

**i = (int) (25.6\*(5+5\*sin(count \*My\_PI/180)));**

**i = i << 4;**

**LPC\_GPIO0->FIOPIN = i;**

**}**

**}**

**}**

**//UART**

**#include<LPC17xx.h>**

**void UART0\_Init(void);**

**unsigned int i ;**

**unsigned char \*ptr, arr[] = "GOOD DAY\n";**

**int main(void)**

**{**

**UART0\_Init();**

**while(1)**

**{**

**ptr = arr;**

**while ( \*ptr != '\0')**

**{**

**LPC\_UART0->THR = \*ptr++;**

**}**

**for(i=0;i<=60000;i++);**

**}**

**}**

**void UART0\_Init(void)**

**{**

**LPC\_SC->PCONP = 0x00000008; //UART0 peripheral enable**

**LPC\_PINCON->PINSEL0 = 0x00000050;**

**LPC\_UART0->LCR = 0x00000083;**

**//enable divisor latch, parity disable, 1 stop bit, 8bit word length**

**LPC\_UART0->DLM = 0X00;**

**LPC\_UART0->DLL = 0x1A; //select baud rate 9600 bps for 4Mhz**

**LPC\_UART0->LCR = 0X00000003; //Disable divisor latch**

**LPC\_UART0->FCR = 0x07; //FIFO enable,RX FIFO reset,TX FIFO reset**

**}**

**//stepper motor**

**#include <LPC17xx.H>**

**void clock\_wise(void);**

**void anti\_clock\_wise(void);**

**int var1,var2;**

**int i=0,j=0,k=0;**

**int main(void)**

**{**

**LPC\_PINCON->PINSEL4 = 0x00000000;**

**LPC\_GPIO2->FIODIR = 0x0000000F;**

**while(1)**

**{**

**for(j=0;j<50;j++)**

**clock\_wise();**

**for(k=0;k<65000;k++);**

**for(j=0;j<50;j++)**

**anti\_clock\_wise();**

**for(k=0;k<65000;k++);**

**}**

**}**

**void clock\_wise(void)**

**{**

**var1 = 0x00000001;**

**for(i=0;i<=3;i++)**

**{**

**LPC\_GPIO2->FIOPIN = var1;**

**var1 = var1<<1;**

**for(k=0;k<15000;k++);**

**}**

**}**

**void anti\_clock\_wise(void)**

**{**

**var1 = 0x0000008;**

**for(i=0;i<=3;i++)**

**{**

**LPC\_GPIO2->FIOPIN = var1;**

**var1 = var1>>1;**

**for(k=0;k<15000;k++);**

**}**

**}**

**//seven segment**

**#include <LPC17xx.H>**

**int delay, count;**

**int Disp[16]={0X001003F0,0X00100060,0X001005B0,0X001004F0,0X00100660,**

**0X001006D0,0X001007D0,0X00100070,0X001007F0,0X001006F0,0X00100770,**

**0X001007C0,0X00100390,0X001005E0,0X00100790,0X00100710};**

**int main()**

**{**

**LPC\_PINCON->PINSEL0 = 0x00000000;**

**LPC\_GPIO0->FIODIR = 0x00180FF0;**

**while(1)**

**{**

**for(count=0;count<16;count++)**

**{**

**LPC\_GPIO0->FIOPIN = Disp[count];**

**for(delay=0;delay<90000;delay++);**

**}**

**}**

**}**