

// PARTB QUE5

```
#include<lpc214x.h>
```

```
void init()
```

```
{
```

```
    PINSEL0=0X05;
```

```
    U0FCR=0X07;
```

```
    U0LCR=0X83;
```

```
    U0DLL=0X5D;
```

```
    U0DLM=0X00;
```

```
    U0LCR=0X03;
```

```
}
```

```
void delay()
```

```
{ int i;
```

```
    for(i=0;i<2000000;i++);
```

```
} int main()
```

```
{
```

```
    unsigned char p[] = "I LOVE ISE";
```

```
    int z; init();
```

```
    for(z=0;z<=20;z++)
```

```
    {
```

```
        U0THR=p[z]; while(!(U0LSR&&0X20)); delay();
```

```
    } while(1);
```

```
}
```

Registers	
Register	Value
<b>Current</b>	
R0	0x40000060
R1	0x40000060
R2	0x40000060
R3	0x40000060
R4	0x00000000
R5	0x40000000
R6	0x00000000
R7	0x00000000
R8	0x00000000
R9	0x00000000
R10	0x0000029C
R11	0x00000000
R12	0x00000160
R13 (SP)	0x40000460
R14 (LR)	0x000000C4
R15 (PC)	0x00000160
CPSR	0x600000D3
SPSR	0x00000000
+	User/System
+	Fast Interrupt
+	Interrupt
+	<b>Supervisor</b>
+	Abort
+	Undefined
-	Internal
PC \$	0x00000160
Mode	Supervisor
States	895
Sec	0.00007458

**UART #1**

I LOVE ISE

Call Stack + Locals | **UART #1** | Memory 1

// PART B QUE 2

#include<LPC214x.h> void onwait()

```
{
    T0MR0=0x7A11;
    T0PR=0; T0TCR=1;
    while(!(T0TC==T0MR0));
    T0TCR=3;//Stop and reset timer
```

} void offwait()

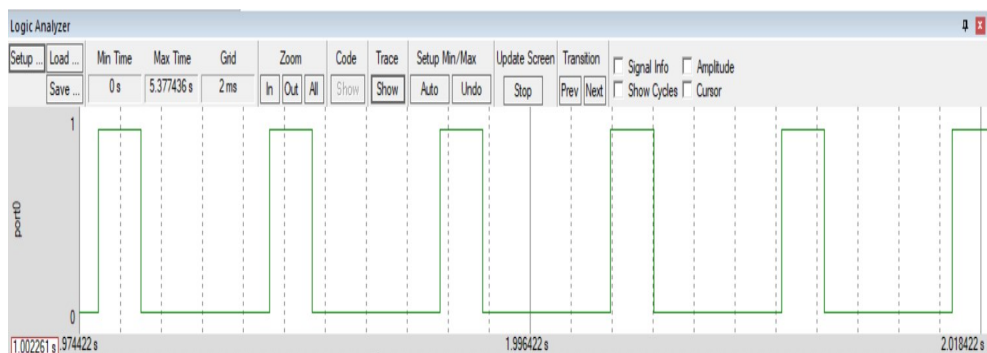
```
{
    T0MR0=0x16E35;
    T0PR=0; T0TCR=1;
    while(!(T0TC==T0MR0)); T0TCR=3;
}
```

int main()

```
{
    T0MCR=0X4;

    IODIR0=1<<16; while(1)
    {
        IOSET0=1<<16;
        onwait();
        IOCLR0=1<<16;
        offwait();
    }
}
```

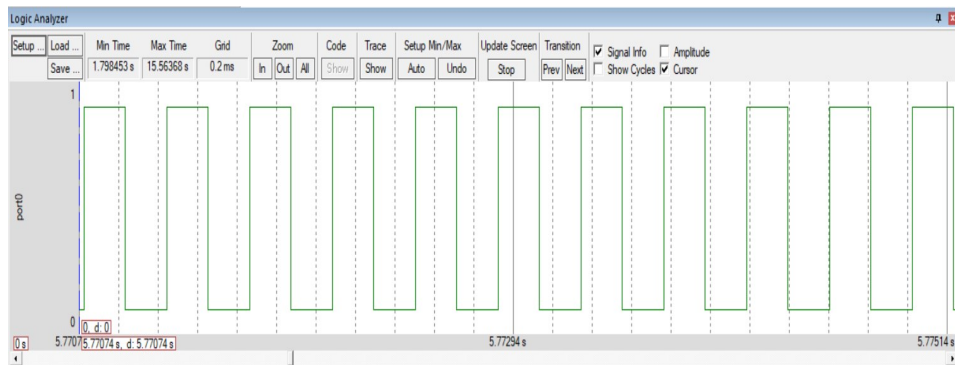
Registers	
Register	Value
<b>Current</b>	
R0	0x40000060
R1	0x40000060
R2	0x40000060
R3	0x40000060
R4	0x00000000
R5	0x40000000
R6	0x00000000
R7	0x00000000
R8	0x00000000
R9	0x00000000
R10	0x00002B8
R11	0x00000000
R12	0x0000198
R13 (SP)	0x40000460
R14 (LR)	0x00000C4
R15 (PC)	0x0000198
CPSR	0x600000D3
SPSR	0x00000000
User/System	
Fast Interrupt	
Interrupt	
<b>Supervisor</b>	
Abort	
Undefined	
<b>Internal</b>	
PC \$	0x0000198
Mode	Supervisor
States	895
Sec	0.00007458



// PART B QUE1

```
#include<lpc214x.h> void delay(int
n)
{ int i;
  for(i=0;i<n;i++);
} int main()
{
    IODIR0=0X00000001;
    while(1){
        IOSET0=0X00000001; delay(500);
        IOCLR0=0X00000001; delay(500);
    }
}
```

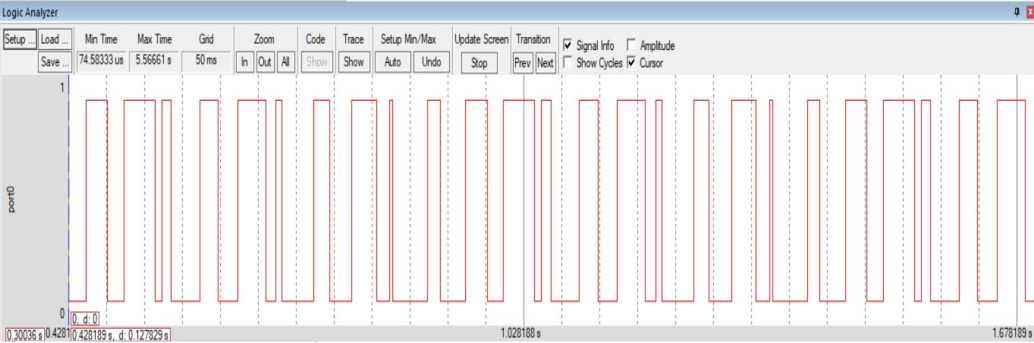
Registers	
Register	Value
<b>Current</b>	
R0	0x000001F4
R1	0x0000001D
R2	0x40000060
R3	0x40000060
R4	0x00000000
R5	0x40000000
R6	0x00000000
R7	0x00000000
R8	0x00000000
R9	0x00000000
R10	0x00000230
R11	0x00000000
R12	0x00000120
R13 (SP)	0x40000460
R14 (LR)	0x00000158
R15 (PC)	0x00000110
CPSR	0x800000D3
SPSR	0x00000000
<b>User/System</b>	
<b>Fast Interrupt</b>	
<b>Interrupt</b>	
<b>Supervisor</b>	
<b>Abort</b>	
<b>Undefined</b>	
<b>Internal</b>	
PC \$	0x00000110
Mode	Supervisor
States	1141956442
Sec	95.16303683



// PART B QUE4

```
#include<lpc214x.h> void pwm_init()
{
    PINSEL0=0X2;
    PWMPR=2;
    PWMPCR=0X200;
    PWMMR0=0XC37F;
    PWMMCR=0X2;
    PWMTCR=0X9;
} int main()
{ int i;
  pwm_init(); while(1)
  { for(i=0;i<10;i++)
    {
      PWMMR1=0xffff+(0xff5*i);
      PWMLER=0X02;
    }
  }
}
```

Register	Value
<b>Current</b>	
R0	0x40000060
R1	0x40000060
R2	0x40000060
R3	0x40000060
R4	0x00000000
R5	0x40000000
R6	0x00000000
R7	0x00000000
R8	0x00000000
R9	0x00000000
R10	0x00000260
R11	0x00000000
R12	0x00000140
R13 (SP)	0x40000460
R14 (LR)	0x000000C4
R15 (PC)	0x00000140
CPSR	0x600000D3
SPSR	0x00000000
User/System	
Fast Interrupt	
Interrupt	
<b>Supervisor</b>	
Abort	
Undefined	
Internal	
PC \$	0x00000140
Mode	Supervisor
States	895
Sec	0.00007458





### // PART B QUE 3

```
#include<lpc214x.h> unsigned int x=0;
__irq void Timer0_ISR()
{
    x^=1;
    if(x)
        IOSET1=0xFFFFFFFF;
    else
        IOCLR1=0xFFFFFFFF;
    T0IR=0X01;
    VICVectAddr=0X00000000;
} int main()
{
    IODIR1=0Xffffff;
    T0MCR=0X03;
    T0MR0=0X3456ff;
    VICVectAddr4=(unsigned)Timer0_ISR;
    VICVectCntl4=0X24;
    VICIntEnable=0X10; T0TCR=1;
    for(;;);
}
```



Register	Value
<b>Current</b>	
R0	0x40000068
R1	0x40000068
R2	0x40000068
R3	0x40000068
R4	0x00000000
R5	0x40000004
R6	0x00000000
R7	0x00000000
R8	0x00000000
R9	0x00000000
R10	0x000003B4
R11	0x00000000
R12	0x0000029C
R13 (SP)	0x40000468
R14 (LR)	0x000001F8
R15 (PC)	0x0000029C
CPSR	0x60000010
SPSR	0x00000000
<b>User/System</b>	
Fast Interrupt	
Interrupt	
Supervisor	
Abort	
Undefined	
<b>Internal</b>	
PC \$	0x0000029C
Mode	User
States	966
Sec	0.00001823



Project



Registers