EXPERIMENT 2

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BATCH: EA-3
SUBJECT: ESRTOS

Aim: To make a program for LED Blinking using LPC2129

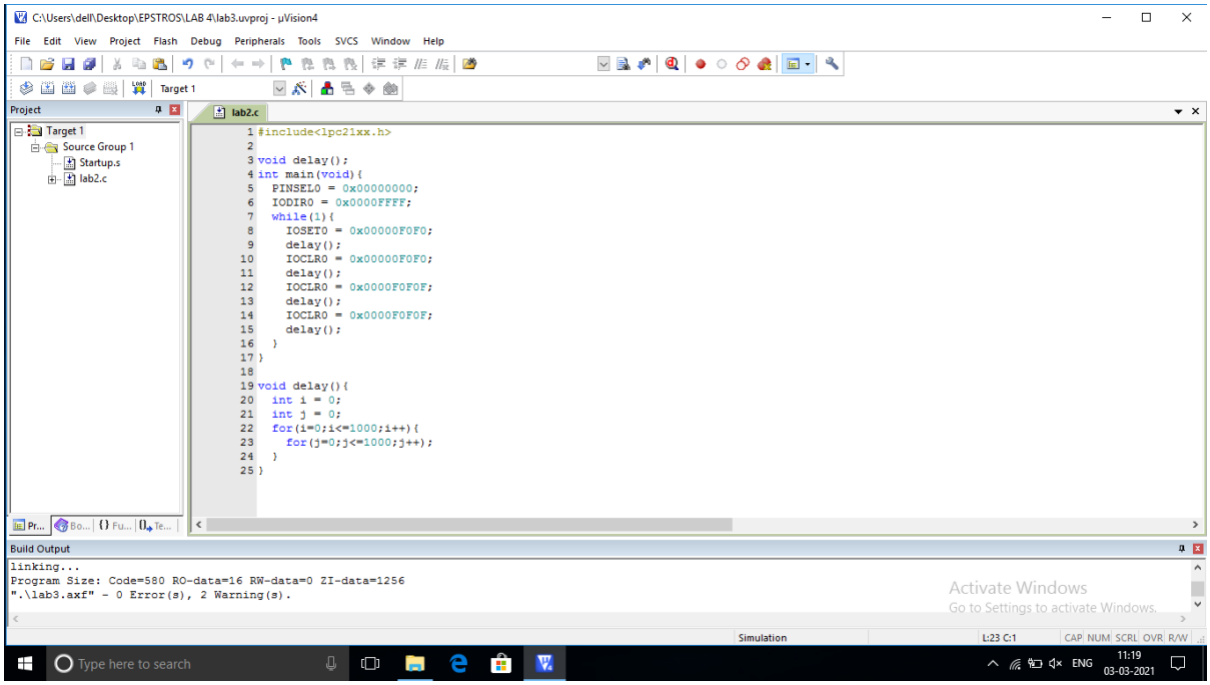
Theory: LPC2129 is a single-chip 32-bit microcontroller with 256KB on-chip Flash ROM with In-System Programming (ISP) and In-Application Programming (IAP) 16KB RAM having Real Time Clock, Watchdog Timer, General purpose I/O pins. CPU clock up to 60 MHz, On-chip crystal oscillator and On-chip PLL. This IC also supports Interrupt Controller, 2 SPI serial interfaces, Two UARTs, I2C serial interface, PWM unit with up to 6 PWM outputs, Two timers (7 capture/compare channels), 4-channels 10bit ADC, 2 CAN channels.

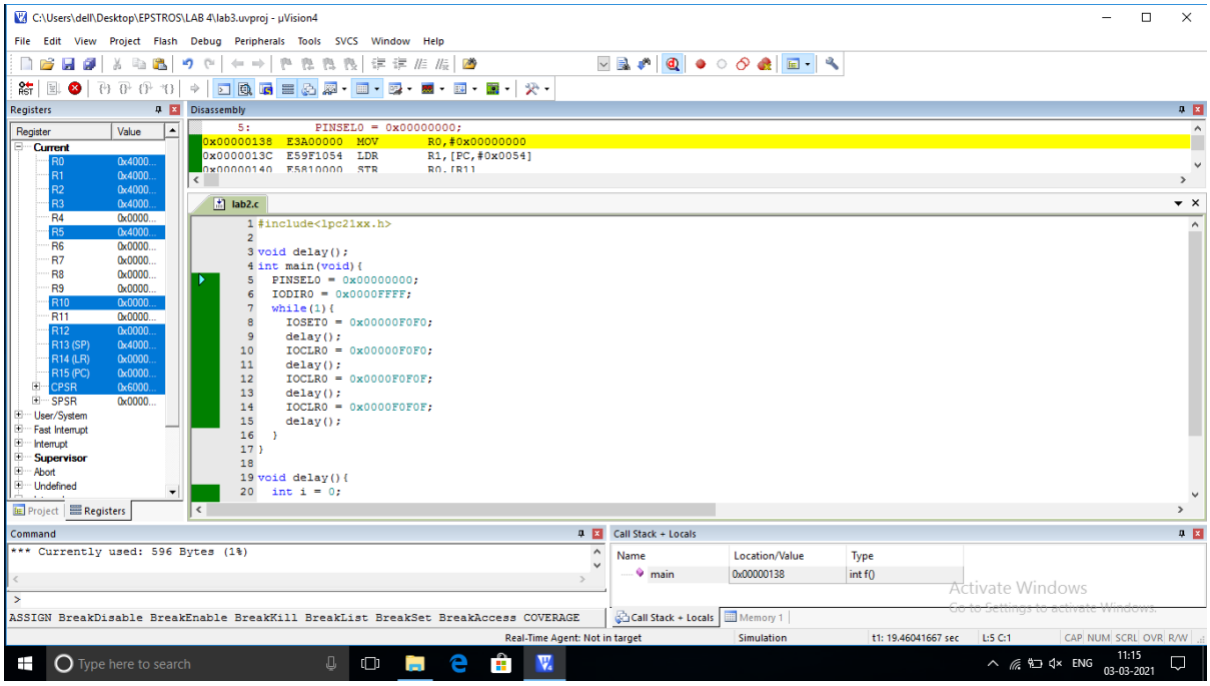
Code of the Program:

```
#include<lpc21xx.h>

void delay();

int main(void){
	PINSEL0 = 0x00000000;
	IODIR0 = 0x0000FFFFF;
	while(1){
		IOSET0 = 0x00000F0F0;
		delay();
		IOCLR0 = 0x00000F0F0;
		delay();
		IOSET0 = 0x0000F0F0F;
```

```
                delay();
                IOCLR0 = 0x0000F0F0F;
                delay();
        }
}

void delay(){
        int i = 0;
        int j = 0;
        for(i = 0;i<=1000;i++){
                for(j = 0;j<=1000;j++);
        }
}
```

Screenshots of the Program:





Conclusion: From this experiment we have learnt the program for LED blinking with different patterns in LPC2129 ARM and Keil UVision 4.