

**Review - 2**

**Team –A13**

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**Topic:**

PRE-EMPTIVE Write a C code to demonstrate the concept of Task Switching

1st Task- Toggleleds.

2nd Task- Rotate stepper motor clockwise

Under The Guidance Of:

Dr. Swati Mavinkattimath. Guide Signature

**Code:**

#include<rtl.h>

#include<lpc21xx.h>

#include<stdio.h>

void delay(void);

OS\_TID tsk1,tsk2,tsk3; //declare task identification number

int cnt1,cnt2;

int i;

\_\_task void job1(void); //led

\_\_task void job2(void); // stepper motor

\_\_task void job1(void)

{

IODIR0 = 0x00ff0000;

//IOSET0 = 0x000F0000;

os\_tsk\_prio\_self(2); //assign priority to job1

tsk2 = os\_tsk\_create(job2,1); //create job2

while(1)

{

IOCLR0 = 0x000f0000; //LEDS on

for(i=0;i<65000;i++);

for(i=0;i<65000;i++);

IOSET0 = 0x000f0000; //LEDS off

for(i=0;i<65000;i++);

for(i=0;i<65000;i++);

os\_tsk\_prio(tsk2,2); //change priority to tsk2

}

}

\_\_task void job2(void) //job2function declaration

{

PINSEL0 = 0x00000000;

IODIR0 = 0x0000F000;

while(1)

{

IOSET0 = 0x00008000;

delay();

IOCLR0 = 0x00008000;

IOSET0 = 0x00004000;

delay();

IOCLR0 = 0x00004000;

IOSET0 = 0x00002000;

delay();

IOCLR0 = 0x00002000;

IOSET0 = 0x00001000;

delay();

IOCLR0 = 0x00001000;

delay();

}

}

void delay(void)

{

unsigned long int j;

for (j=0; j<65000; j++);

}

int main(void)

{

cnt1= 0;

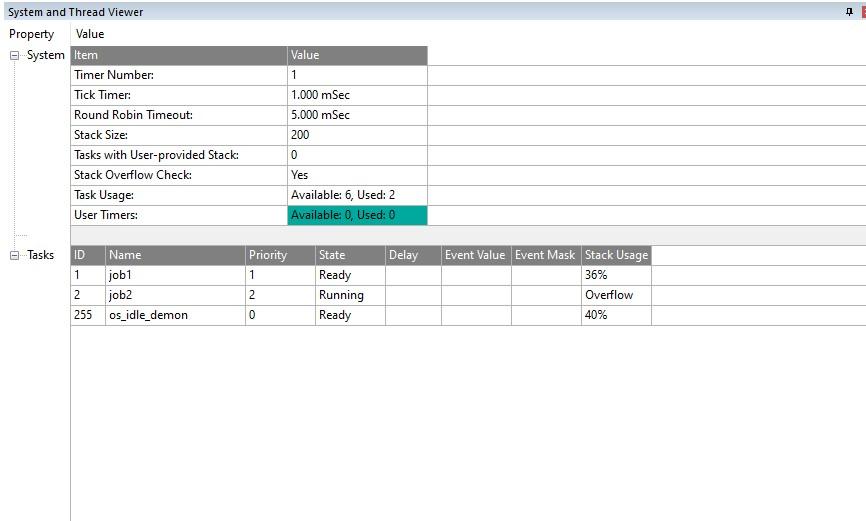
cnt2 =0;

os\_sys\_init(job1); //initialize job1

while(1);

}

**Implementation:**



**Output:**

