

Github root directory:

<https://github.com/IMSB007/2019Fall>**Date Submitted:****Task 00:** Execute provided code

Youtube Link:

Task 01:Youtube Link: <https://www.youtube.com/watch?v=157TpeuTIuE>

Modified Schematic (if applicable):

Modified Code:

// Insert code here

//length = 100

#define SERIES_LENGTH 1000

//global variables

float gSeriesData[SERIES_LENGTH];

int32_t i32DataCount = 0;

int main(void)

{

//local variables

//float fRadians;

float sinv, cosv;

//enable Lazy Stack

ROM_FPULazyStackingEnable();

//Turn on FPU

ROM_FPUEnable();

//set up the system clock for 50MHz

Grading scheme: 30% Coding, 30% Documentation, 40% Execution/Video.

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```
ROM_SysCtlClockSet(SYSCTL_SYSDIV_4 | SYSCTL_USE_PLL |
SYSCTL_XTAL_16MHZ | SYSCTL_OSC_MAIN);
```

```
sinv = (2 * M_PI * 50)/SERIES_LENGTH;
```

```
cosv = (2 * M_PI * 200)/SERIES_LENGTH;
```

```
//fRadians = ((2 * M_PI) / SERIES_LENGTH);
```

//the while loop will calculate the sine value for each of the 100 values of the angle
and place them in data array

```
while(i32DataCount < SERIES_LENGTH)
```

```
{
```

```
    //gSeriesData[i32DataCount] = sinf(fRadians * i32DataCount);
```

```
    gSeriesData[i32DataCount] = 1.5 + 1.0 * sinf(sinv * i32DataCount) + 0.5 *
```

```
cosf(cosv * i32DataCount);
```

```
    i32DataCount++;
```

```
}
```

```
//endless loop
```

```
while(1)
```

```
{
```

```
}
```

```
}
```

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