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| EDF schedular Analysis | |
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| EGFWD / Udacity | ZIAD HESHAM |

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|  |  |  |  |
|  | FWD freeRTOS Project CPU usage time using timestamps of timer1 and switch in and out hooks | |  |
|  | Gant chart using logic analyzer | |  |
|  |  |  |  |

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|  | Gant chart using simso |  |  |
|  |  | |  |

### Analytical methods

## **CPU Load =>47.7%**

# HyperPeriod(LCM) = 100

### System schedulability using URM

U= =

URM= =

**URM > U =>schedulable**

### System schedulability using Time Demand analysis

For Button1Monitor : Wi=7.75us , D=50ms **=> D > Wi schedulable**

For Button2Monitor: Wi=7.75us , D=50ms **=> D > Wi schedulable**

For periodicTransmitter : Wi=5.16us , D=100ms **=> D > Wi schedulable**

For UART Receiver: Wi=25us , D=20ms **=> D > Wi schedulable**

For Load1\_simulation : Wi=5ms , D=10ms **=> D > Wi schedulable**

For Load2\_simulation: Wi=12ms , D=100ms **=> D > Wi schedulable**