

Design Report

Tasks Needed

There will be 5 Task

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|---------------------------|---------------------------------|
| 1. Lcd Task. | {P: 200, Pr: 2, E: 2, D: 200} |
| 2. Blood Pressure Sensor. | {P: 25, Pr: 3, E: 3, D: 25} |
| 3. Heartbeat Detector. | {P: 100, Pr: 4, E: 1.5, D: 100} |
| 4. Temperature Sensor. | {P: 10, Pr: 1, E: 2.5, D: 10} |
| 5. Alert Siren. | {P: 10, Pr: 5, E: 1, D: 10} |

- Where

P: Periodicity

Pr: Priority

E : Execution Time

D : Deadline

- Tick Time = 10ms
- System Hyperperiod = 200ms
- $$\text{CPU Load} = ((2*1) + (3*8) + (1.5*2) + (2.5*20) + (1*20)) / 200$$
$$= 0.495 \text{ (49.5\%)}$$

System Load is acceptable and additional feature can be added
- System is Schedulable

Simso Simulation

