- **Decide how many tasks are needed: (5 Tasks)**

  1. LCD Monitoring (T1)
  2. Blood Pressure Sensor (T2)
  3. Heart Beat Detector (T3)
  4. Temperature Sensor (T4)
  5. Siren Alarm (T5)

- **Decide the task parameters (Priority – Periodicity – Deadline).**

  Assigning priorities based on Rate Monotonic Scheduling and Deadlines same as Periodicities as it was not mentioned otherwise:

  T3: {P: 100, Prio: 1, E: 1.5, D: 100}
  T1: {P: 50, Prio: 2, E: 2, D: 50}
  T2: {P: 25, Prio: 3, E: 3, D: 25}
  T4: {P: 10, Prio: 4, E: 2.5, D: 10}
  T5: {P: 10, Prio: 5, E: 1, D: 10}

- **Decide the system tick rate**

  SysTick will be 5ms as it is the least multiple that satisfy all tasks periodicity

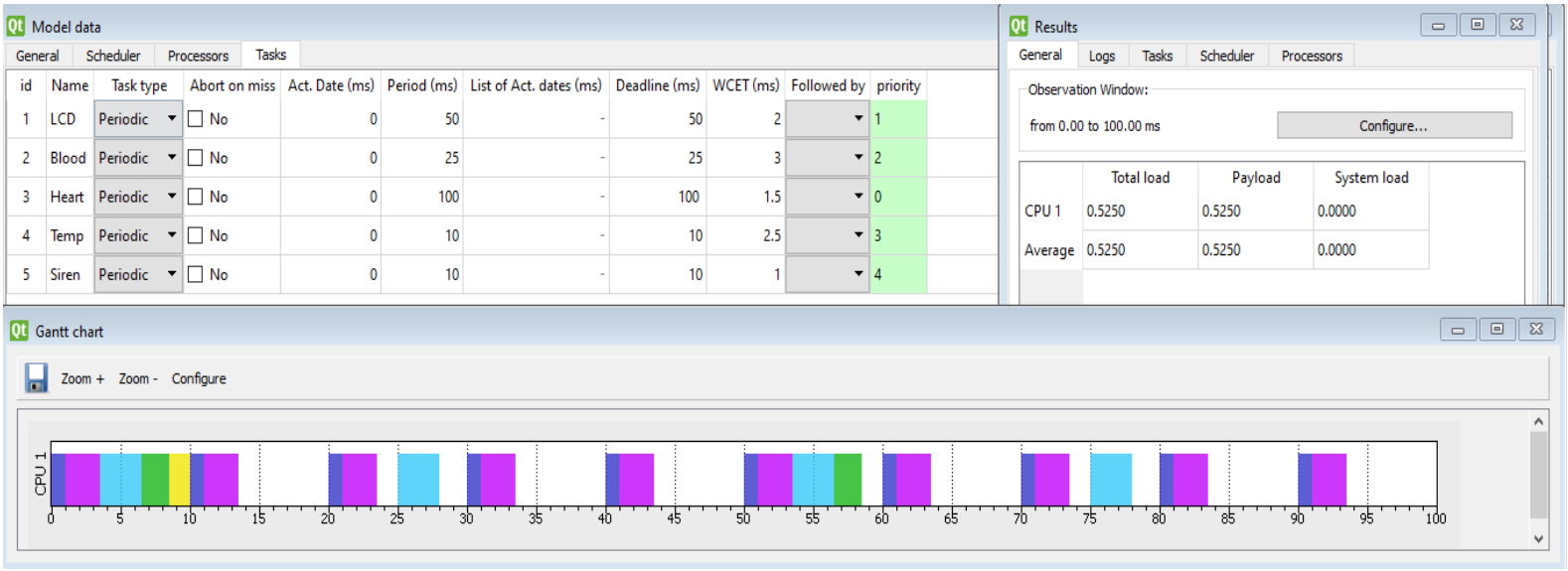
  Hyperperiod

  Hyperperiod will be = 100ms as it is the LCM for periodicity of all tasks

- **CPU load**

  U = (E1 + E2 + E3 + E4 + E5) / H
  = ((1*10) + (2.5*10) + (3*4) + (2*2) + 1.5) / 100 = 0.525 = 52.5%

- **Model the system in Simso and verify that your design is schedulable.**



Manual calculations compared to simso's are the same, also the system is schedulable and not overloaded and can easily be modified to add new features to it.