```java
public class ControllerNewImpl implements Runnable {
  protected Controller_STATES Controller = Step;
  protected int C_tempPSU = 0;
  protected int C_tempAmbient = 0;
  protected int C_fanSpeed = 3000;
  protected boolean C_fanOn = true;
  protected int failureCount = 0;
  protected int priority = 5;

  public void run(){
    while(true)
    {
      long THREAD_START_TIME = System.currentTimeMillis();
      ((ControllerNewImpl)MainEntry.
        getTask("ControllerNewImpl ")).ControllerstateMachine();
      ((EnvNewImpl)MainEntry.getTask("EnvNewImpl ")).write(C_fanOn);
      if ((Controller != Normal))
      {
        Pointer<Integer> C_fanSpeedPointer = new Pointer<Integer>();
        Pointer<Integer> C_tempAmbientPointer = new Pointer<Integer>();
        Pointer<Integer> C_tempPSUPointer = new Pointer<Integer>();
        ((EnvNewImpl)MainEntry.getTask( "EnvNewImpl "))
          .read(C_fanSpeedPointer, C_tempAmbientPointer, C_tempPSUPointer);
        C_fanSpeed = C_fanSpeedPointer.value;
        C_tempAmbient = C_tempAmbientPointer.value;
        C_tempPSU = C_tempPSUPointer.value;
      }
      System.out.println("C_fanSpeed:  "  + C_fanSpeed);
      System.out.println("C_fanOn:  "  + C_fanOn);
      long THREAD_END_TIME = System.currentTimeMillis();
      long THREAD_TIME_TAKEN = THREAD_END_TIME - THREAD_START_TIME;
      try{ Thread.sleep(Math.max(100 - THREAD_TIME_TAKEN,0));
      ...
    }
  }

  public void ControllerstateMachine(){
    switch(Controller){
      case Step:
      Controller = Control;
      break;
      case Control:
      if ((!((C_tempPSU >= HWM_PSU) || (C_tempAmbient >= HWM_AMBIENT)))
          && (!((C_tempPSU <= LWM_PSU) && (C_tempAmbient <= LWM_AMBIENT))))
      {
        Controller = Normal;
      }
      else if (((C_tempPSU >= HWM_PSU) || (C_tempAmbient >= HWM_AMBIENT)))
      {
        Controller = Normal;
        C_fanOn = true;
      }
      else if (((C_tempPSU <= LWM_PSU) && (C_tempAmbient <= LWM_AMBIENT)))
      {
        Controller = Normal;
        C_fanOn = false;
      }
      break;
      ...
  }
```