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19EE10039.

Part 2.

_/_/_

Ambient temp = 16°C.
Set point = 25°C

```
.INCLUDE "M32DEF.INC"
.ORG 00
LDI R16, HIGH (RAMEND)
OUT SPH, R16
LDI R16, LOW (RAMEND)
OUT SPL, R16
LDI R16, 0X00
OUT DDRA, R16            //input
LDI R16, 0XFF
OUT DDRD, R16            //output


LDI R16, 0X87            // Prescaler
OUT ADCSRA, R16,         ADC using
                         polling

LDI R16, 0X61            // left adjust
OUT ADMUX, R16

READ:
    NOP
    SBI ADCSRA, ADSC.
```

```
POLL_ADC:
        NOP
        SBIS ADCSRA,ADIF
        RJMP  POLL_ADC
        SBI   ADCSRA,ADIF
```

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To avoid chattering?

— Add hysteresis to stop relay chattering.

— move set point up or down based on output state.

— else, slow loop rate so output is only updated every few seconds.