

```

Led:
int s = A0, led = 13;
float th = 40;

void setup() {
  pinMode(led, OUTPUT);
}

void loop() {
  float t = (analogRead(s) * 5.0 / 1023.0) * 100.0; // LM35 → °C
  digitalWrite(led, t > th);
}

PWM
#include <stdio.h>
#include <unistd.h>

void pwm_simulate(int duty, int period_ms)
{
  int high = (duty * period_ms) / 100;
  int low = period_ms - high;

  printf("HIGH for %d ms\n", high);
  usleep(high * 1000);

  printf("LOW for %d ms\n", low);
  usleep(low * 1000);
}

int main()
{
  int duty = 40;
  int period = 1000;

  while (1)
  {
    pwm_simulate(duty, period);
  }
}

```