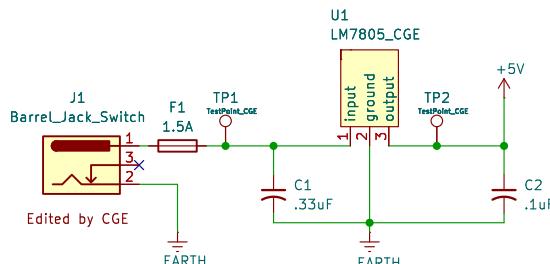
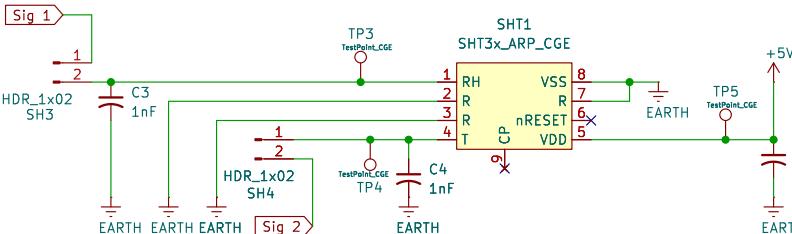


9V DC to 5V Regulated Supply



9 V DC input from barrel jack (J1) is protected by a 1.5 A fuse (F1). The LM7805 regulator (U1) converts 9 V to a stable 5 V output. C1 (33 μ F) and C2 (1 μ F) for input/output filtering. EARTH net is the common ground reference.

SHT31-ARP-B Humidity and Temperature Sensor

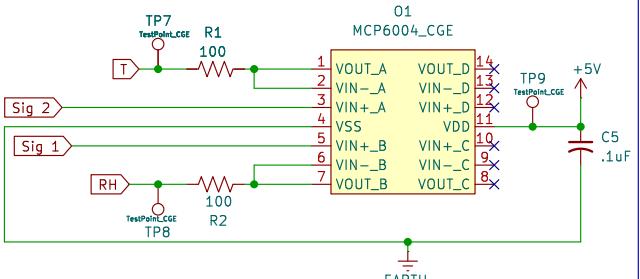


SHT31-ARP-B Humidity and Temperature Sensor is expected to output 10% of VDD up to 90% of VDD for both Signal 1 [Relative Humidity (RH) pin] and Signal 2 [Temperature (T) pin]

VDD: 5V

RH pin voltage output range: 0.5 V – 4.5 V for 0 – 100 % RH
T pin voltage output range: -0.77 V – -4.34 V for -40 °C – +125 °C

Op-Amp Buffer Circuit for SHT31 Outputs



RH (Signal 1) and T (Signal 2) output is buffered by MCP6004 unity-gain op-amps (5 V supply, 2 of 4 op amps used) with -100 Ω output isolation to the PIC ADC; 0.1 μ F decoupling capacitor placed between VDD and VSS

Microchip PIC18F57Q43 Curiosity Nano

