This circuit inputs either a 4-20 mA DC analog signal and generates a 0-100% duty cycle PWM pulse to trigger a power MOSFET to drive a DC load.

TP0 = Ground
TP1 = +5.0 volt reference (adjust "Ref adj")
TP2 = PWM output signal to MOSFET gate (high = power on to load)
TP3 = +12.0 volt power supply rail (for IC chips)
TP4 = Unregulated +V power supply rail
TP5 = Sawtooth oscillator waveform (peaks at +1.0 V and +5.0 V)