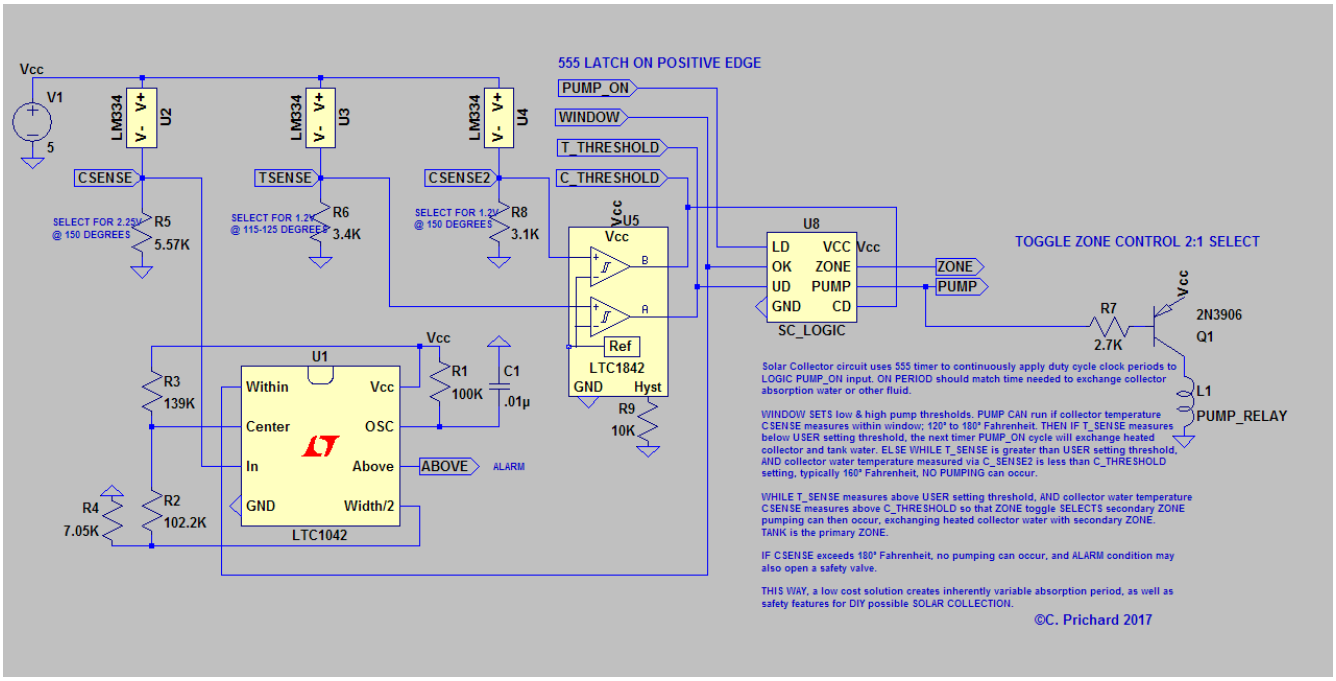
SOLAR COLLECTION CONTROL©



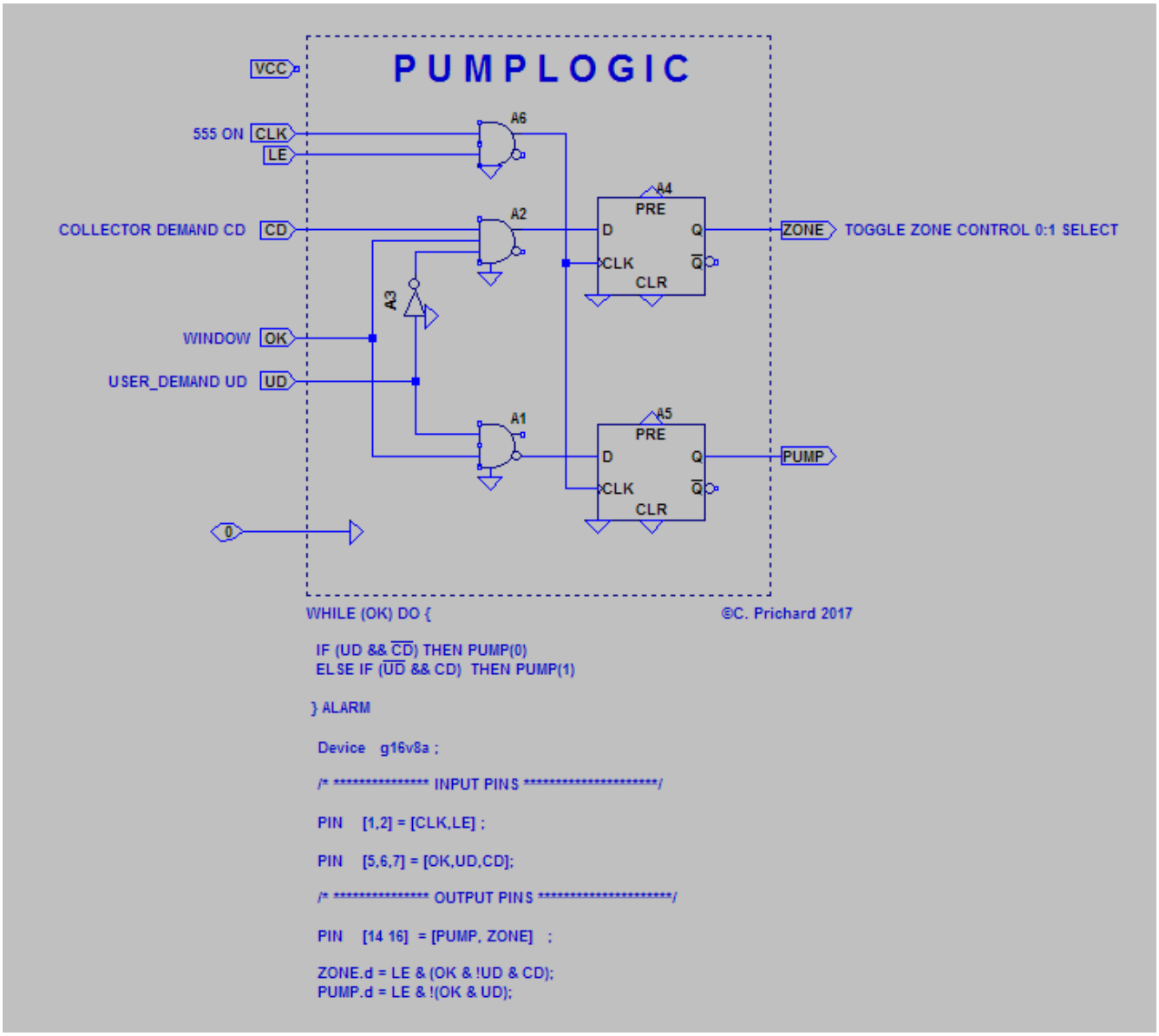
Solar Collector circuit uses 555 timer to continuously apply duty cycle clock periods to LOGIC PUMP_ON input. ON PERIOD should match time needed to exchange collector absorption water or other fluid. WINDOW SETS low & high pump thresholds. TANK is the primary ZONE.

WHILE T_SENSE is greater than USER setting threshold, AND collector water temperature measured via C_SENSE2 is less than C_THRESHOLD setting, typically 160º Fahrenheit, NO PUMPING can occur.

WHILE collector temperature via CSENSE measures within window; 120º to 180º Fahrenheit. DO
{
IF T_SENSE measures below USER setting threshold, the next timer PUMP_ON cycle will exchange heated collector and primary tank water.
ELSE IF T_SENSE measures above USER setting threshold, AND collector water temperature CSENSE measures above C_THRESHOLD so that ZONE toggle SELECTS secondary ZONE pumping can then occur, exchanging heated collector water with secondary ZONE.
}

IF CSENSE exceeds 180º Fahrenheit, no pumping can occur, and ALARM condition may also open a safety valve.

THIS WAY, a low cost solution creates inherently variable absorption period, as well assafety features for DIY possible SOLAR COLLECTION.



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