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//-----
//    Charge-complete detector package
//-----

int runLength;
float previousMA;
boolean extending;    // <<< Temporary: remove when time extension no longer needed.

void ActivateDetector (void)
{
    StartTimer(ArmDetectorTimer, (10 * 60.0));    // 10 minutes
    runLength = 0;
    previousMA = 10000.0;
    extending = false;
}

boolean FullyCharged (float shuntMA, float tempDifferential)
{
    float smoothedMA;

    if (extending)
        return (!IsRunning(ExtensionTimer));

    if (IsRunning(ArmDetectorTimer))    // No detectors for 1st ten minutes
        return false;

    if (tempDifferential < 3.0)
        return false;

    smoothedMA = Savitzky(shuntMA, &savitskyStructure);
    runLength = (smoothedMA > previousMA) ? runLength + 1 : 0;
    previousMA = smoothedMA;
    if (runLength > 12) {
        CTReport(2, shuntMA, 0.0, tempDifferential, 0.0, millis());
        // return true;
        extending = true;    // <<< Temporary: extend run...
        StartTimer(ExtensionTimer, 10 * 60.0);    // <<< ...for ten more minutes
    }
    return false;
}

```