

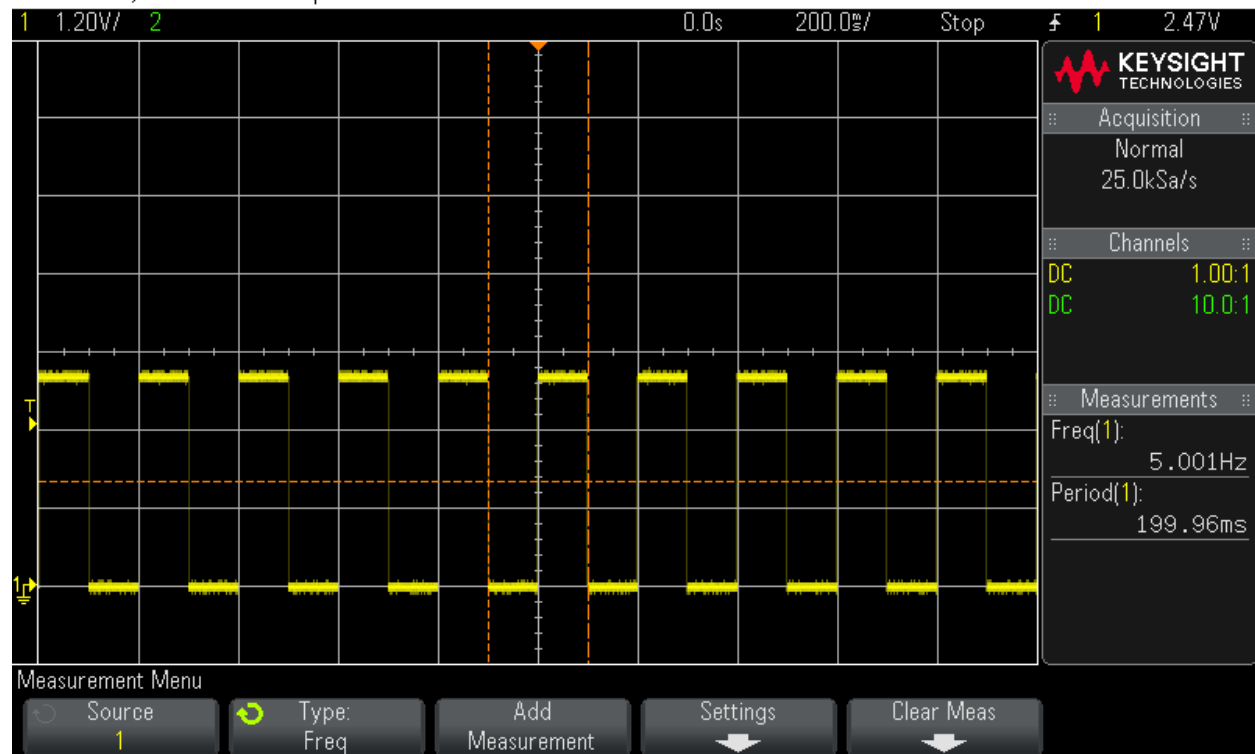
## 1) Github Link:

[https://github.com/steveantony5/AESD\\_Assignments/tree/master/Assignment\\_5](https://github.com/steveantony5/AESD_Assignments/tree/master/Assignment_5)

## 2) Oscilloscope screenshot:

## LED toggling verification

MSO-X 2022A, MY56270404: Thu Apr 11 01:38:39 2019



The toggling happens at 10 Hz ( 100ms)

The period of the waveform is 199.96 ms (5.001 Hz) , ie 2 toggles constitute one cycle.

**3) Oscilloscope screenshot:**

Screenshot of log output from tasks

```
[14501]--->LED    name: steve toggle count: 145
[14601]--->LED    name: steve toggle count: 146
[14701]--->LED    name: steve toggle count: 147
[14801]--->LED    name: steve toggle count: 148
[14901]--->LED    name: steve toggle count: 149
[15001]--->LED    name: steve toggle count: 150
[15005]--->Temp   temp: Temp = 26.9375 C
[15101]--->LED    name: steve toggle count: 151
[15201]--->LED    name: steve toggle count: 152
[15301]--->LED    name: steve toggle count: 153
[15401]--->LED    name: steve toggle count: 154
[15501]--->LED    name: steve toggle count: 155
[15601]--->LED    name: steve toggle count: 156
[15701]--->LED    name: steve toggle count: 157
[15801]--->LED    name: steve toggle count: 158
[15901]--->LED    name: steve toggle count: 159
[16001]--->LED    name: steve toggle count: 160
[16005]--->Temp   temp: Temp = 26.8125 C
[16101]--->LED    name: steve toggle count: 161
[16201]--->LED    name: steve toggle count: 162
[16301]--->LED    name: steve toggle count: 163
[16401]--->LED    name: steve toggle count: 164
[16501]--->LED    name: steve toggle count: 165
[16601]--->LED    name: steve toggle count: 166
[16701]--->LED    name: steve toggle count: 167
[16801]--->LED    name: steve toggle count: 168
[16901]--->LED    name: steve toggle count: 169
[17001]--->LED    name: steve toggle count: 170
[17005]--->Temp   temp: Temp = 26.6875 C
[17101]--->LED    name: steve toggle count: 171
[17201]--->LED    name: steve toggle count: 172
[17301]--->LED    name: steve toggle count: 173
[17401]--->LED    name: steve toggle count: 174
```

4) Notification when temperature cross the threshold (upper threshold is set as 28 C, lower threshold 23C )

```
[17000]-->LED    name: steve toggle count: 170
[17004]-->Temp    temp: Temp = 27.3125 C
[17100]-->LED    name: steve toggle count: 171
[17200]-->LED    name: steve toggle count: 172
[17300]-->LED    name: steve toggle count: 173
[17400]-->LED    name: steve toggle count: 174
[17500]-->LED    name: steve toggle count: 175
[17600]-->LED    name: steve toggle count: 176
[17700]-->LED    name: steve toggle count: 177
[17800]-->LED    name: steve toggle count: 178
[17900]-->LED    name: steve toggle count: 179
[18000]-->LED    name: steve toggle count: 180
[18004]-->Temp    temp: Temp = 28.6875 C
----->Temp range higher - notified
[18101]-->LED    name: steve toggle count: 181
[18201]-->LED    name: steve toggle count: 182
[18301]-->LED    name: steve toggle count: 183
[18401]-->LED    name: steve toggle count: 184
[18501]-->LED    name: steve toggle count: 185
[18601]-->LED    name: steve toggle count: 186
[18701]-->LED    name: steve toggle count: 187
[18801]-->LED    name: steve toggle count: 188
[18901]-->LED    name: steve toggle count: 189
[19001]-->LED    name: steve toggle count: 190
[19005]-->Temp    temp: Temp = 29.1250 C
----->Temp range higher - notified
[19100]-->LED    name: steve toggle count: 191
[19200]-->LED    name: steve toggle count: 192
[19300]-->LED    name: steve toggle count: 193
[19400]-->LED    name: steve toggle count: 194
[19500]-->LED    name: steve toggle count: 195
[19600]-->LED    name: steve toggle count: 196
[19700]-->LED    name: steve toggle count: 197
[19800]-->LED    name: steve toggle count: 198
```