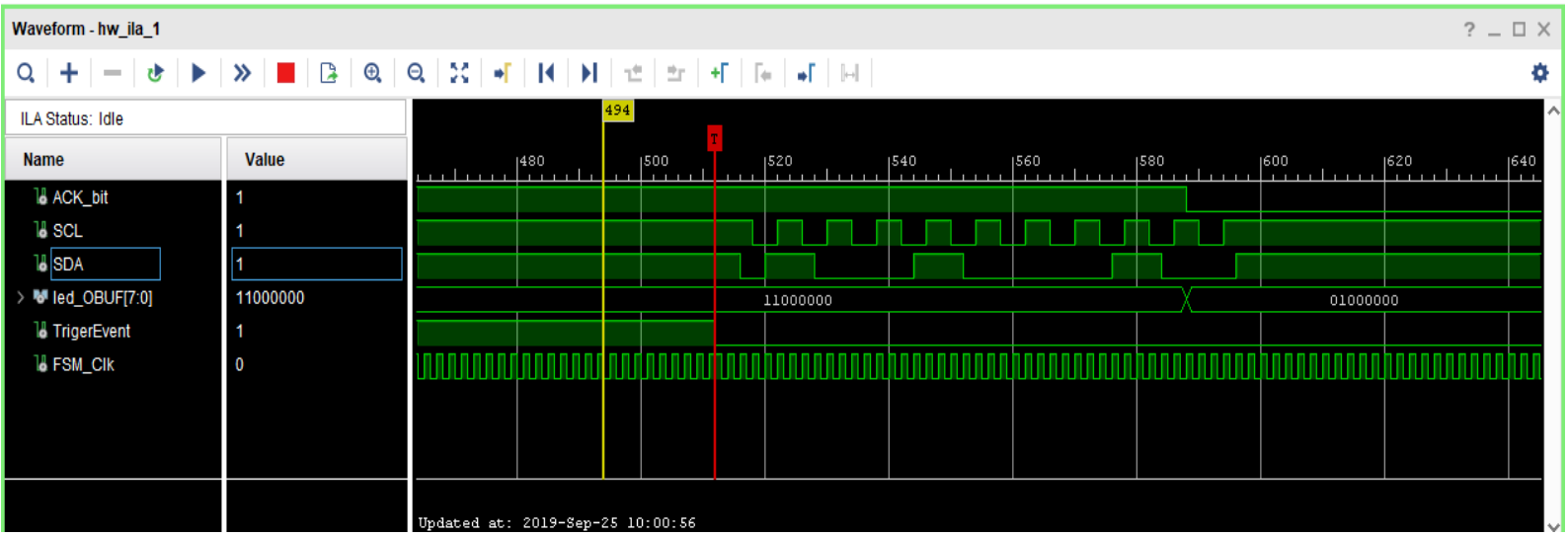
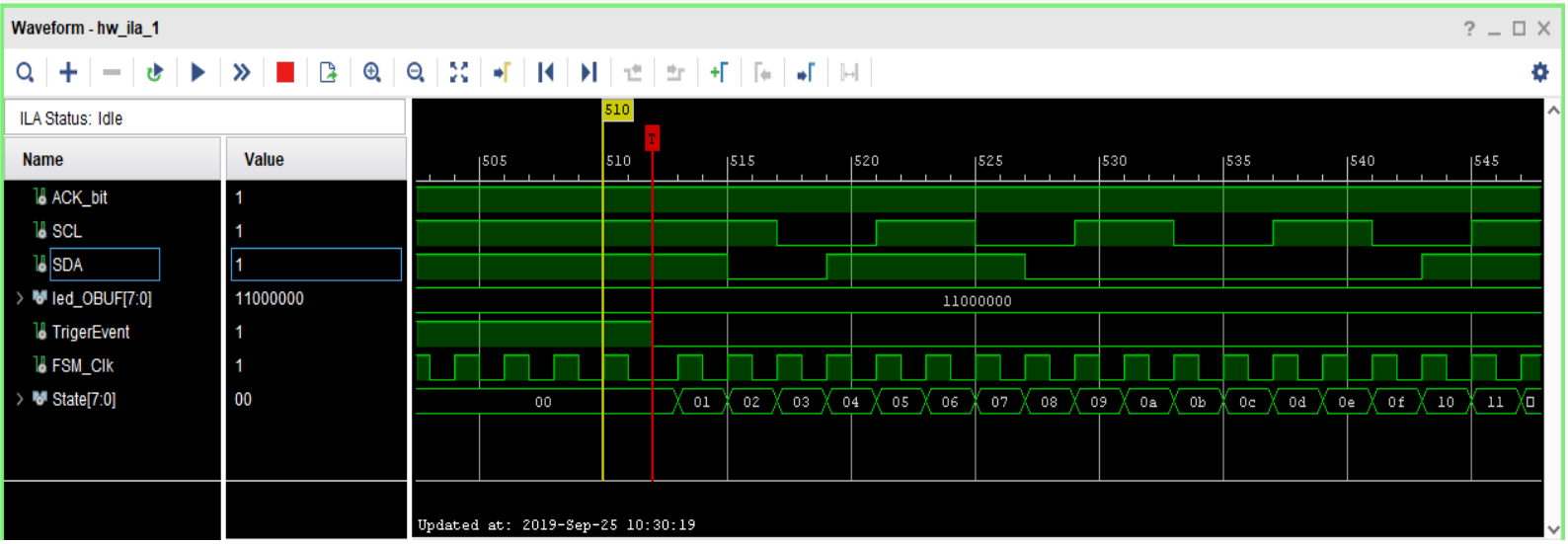
Name: Junzhe Wu Net id: Junzhew3

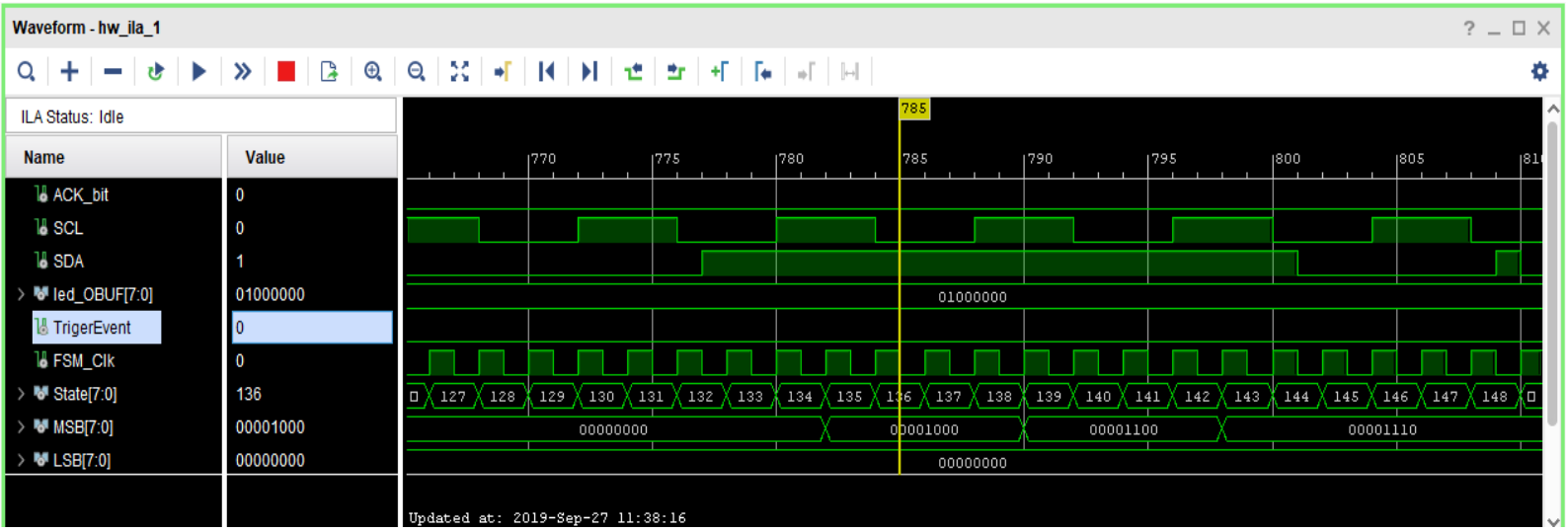
1. Waveform window from sample number 500 to sample number 600.



2. Waveform window with **State** variable



3. Timing waveforms of my FSM in the checkpoint 2



4. What is the maximum speed you can run the SCL signal of the temperature sensor?
   The maximum frequency for the SCL signal is 400kHz
5. How can you obtain multiple temperature values from the sensor? How would you modify your Verilog and Python code to do this task? You don't need to make these changes in the code.
   Press the button multiple times. Once a circulation is finished, keep my FSM at the STATE_INIT. When I press the button again, a new circulation will begin and obtain the new temperature value. In the python code, I will keep it running to receive data from the sensor.
6. What is the minimum and maximum value the temperature sensor can record?
   −40°C to +150°C
7. What is the resolution of the temperature sensor?
   16-bits resolution: 0.0078°C
   13-bits resolution: 0.0625°C