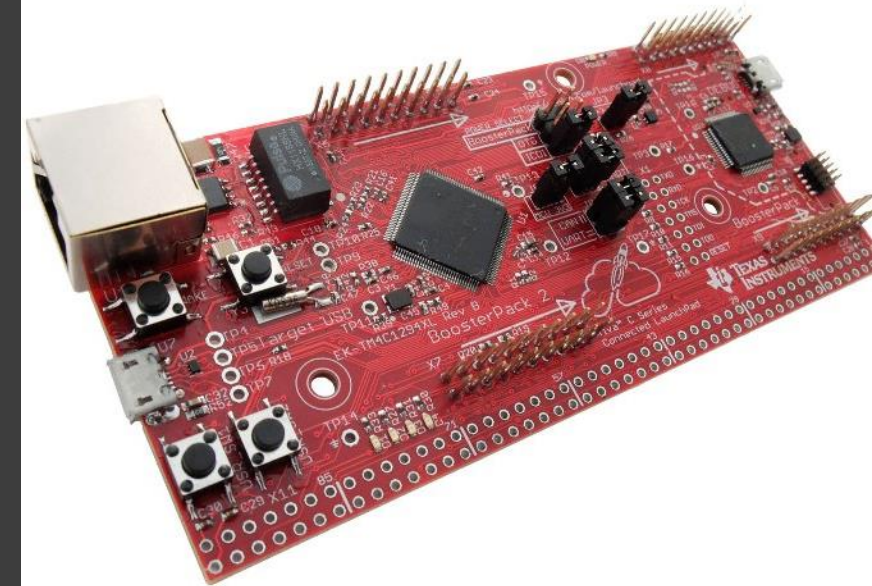
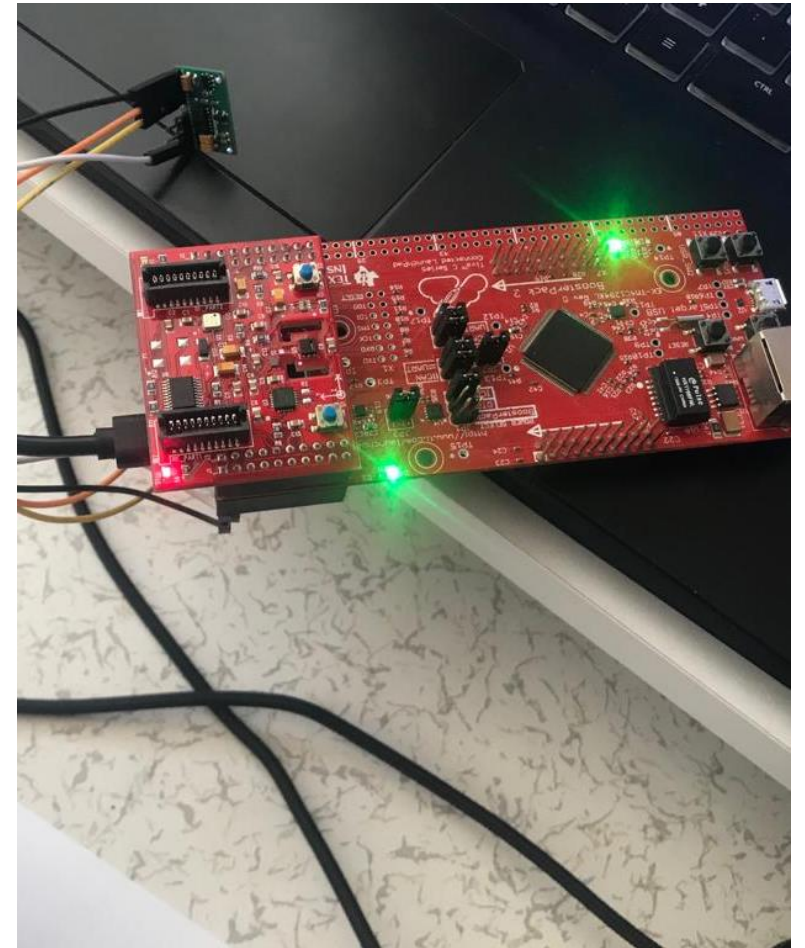


READ HEART BEAT FROM MAX30100



CONNECTING MAX30100 TO EK-TM4C1294XL

- MAX30100 I2C device ID = 0x57
- Connect SDA-SDA and SCL-SCL



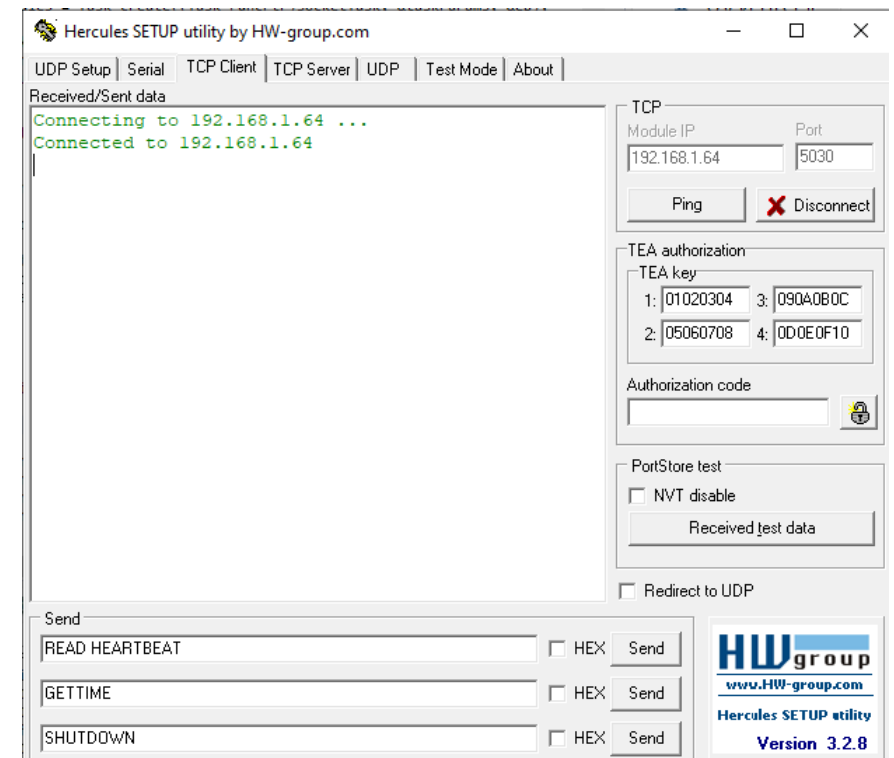
I2C READ CONFIGURATION

- Mode Selection (010 to least significant three bits) = HR only
- Sampling Rate (000 to bit 2,3,4) = 50 sample per second
- Led Pulse Width Control (11 to least significant 2 bits)
- Take FIFO data from 0x05 then make filter for read well.

Interrupt Enable	ENB_A_FULL	ENB_TEP_RDY	ENB_HR_RDY	ENB_SO2_RDY					0x01	0X00
FIFO										
FIFO Write Pointer					FIFO_WR_PTR[3:0]				0x02	0x00
Over Flow Counter					OVF_COUNTER[3:0]				0x03	0x00
FIFO Read Pointer					FIFO_RD_PTR[3:0]				0x04	0x00
FIFO Data Register	FIFO_DATA[7:0]								0x05	0x00
CONFIGURATION										
Mode Configuration	SHDN	RESET			TEMP_EN	MODE[2:0]			0x06	0x00
SPO2 Configuration		SPO2_HI_RES_EN	RE-SERVED	SPO2_SR[2:0]			LED_PW[1:0]		0x07	0x00
RESERVED									0x08	0x00
LED Configuration	RED_PA[3:0]				IR_PA[3:0]				0x09	0x00

COMMUNICATE WITH TCP SERVER

- Configure port numbers and module IP
- Determine the commands for control the system



DIFFICULTIES I HAVE EXPERIENCED

- My biggest challenge was connecting with the sensor.
 - Filters, contact issues.
- Calibrating NTP server data
 - Data type conversions

