Thermal comfort hardware test

As shown in figure 1, the MAX30100 and LM35 are fixed to the thumb and finesse of my left hand respectively, while the galvanic skin response between the thumb and the middle finger of my right hand is measured by GSR sensor.
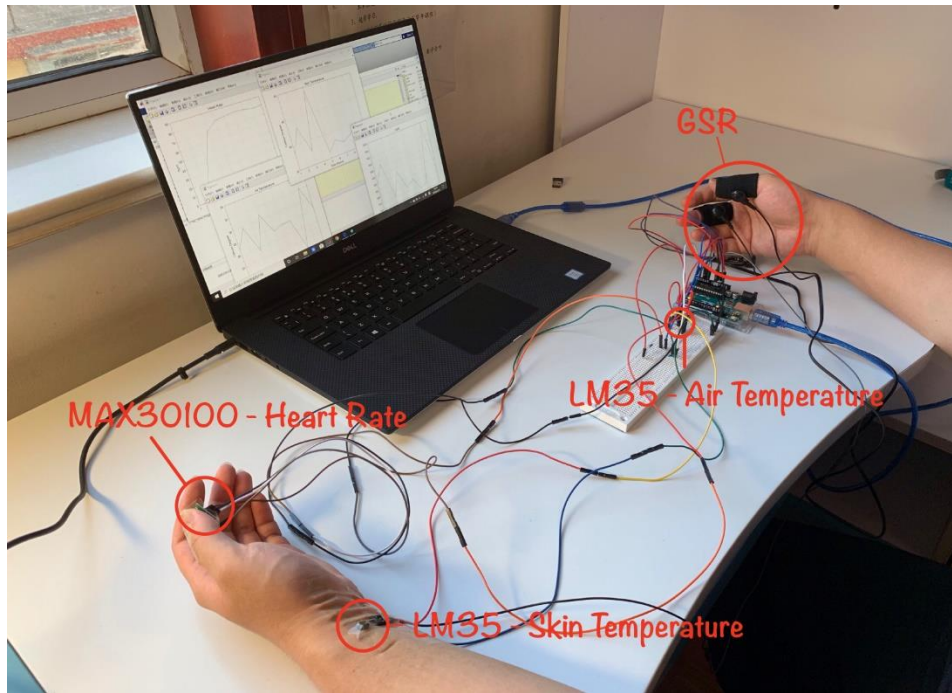

Figure 1. Monitoring system as installed in a desktop

In this system, the measured data is transferred from Arduino to the PC and stored as MATLAB dataset. The overall data is stored in the dataset called 'data' whose first row is air temperature, second row is skin temperature, third row is heart rate and fourth row is galvanic skin response. The intervals of testing process are 10 and 15 minutes.

I found that the devices have internal influence among them. If I just measure the air and skin temperature, the oscillation of temperature is less than 10 degrees, while the range of temperature during overall testing process is larger than before.