ABSTRACT

Nowadays people still using conventional method in human body health and lack of awernesess about human body health because we not have much time to care about our own bodies caused by short time do we have for checking our health to doctor and a lot of activity we have so we do not have much time to check our healt to doctor because we already have jobs and other concerns in our live that need to be fast and efficient. So in this case we made wearable device that can detect and monitoring our health.

In this final project we made a wearable device that has been equiped using arduino microcontroler, pulse oxymeter, and body temperature sensor that can measure body temperature. All of this functions will be use for detection of our body health and the results will be appear in smart phone for the user interface sok we can use it as our monitoring device.

From the results using wearable device that has been made the result of measurement heart rate, oxygen level in the body, and temperature we have value that between sensor we use in wearable device that the value we have is almost no diferent betwen tester device and sensor device so we have accurate value from oxymeter sensor in the amount of 86,15% this value is not so good enough for this sensor because from our testing the oxymeter sensor in jacket is have some big gap betwen comparation tools and sensor, so we have more results accurate value from BPM as 73,18% and for temperature we have 68,40% from the value we can see BPM has more lower number from accurated value because when we use the BPM sensor in jacket if we not place it in the correctly possition it will send some small value or nothing.

Keywords: Arduino, *Pulse oxymeter, wearable device,* microcontroler.