Abstract

Sleep is one of the physiological needs for humans. Every human being obliged to rest their brains after a day of activity. Sleep is an activity that can provide an opportunity for the brain to rear*range* the memory. Sleeping with a lights off has many benefits such as sleep becomes faster and easier, also the production of melatonin hormone will be better to repel diseases. When people sleep, there will be a decrease in body temperature because at that time the organs in human body work slowly. There are so many things that need by human to get a better sleep and one of them is pillow. Pillow is a base that put under people head when they sleep. Sleeping with pillow can also help accelerate the blood circulation.

In this Final Project has created a pillow-based device called "GELAP". This device is made to be able to turn off the lights when the pengguna's condition fell asleep. So, when the pengguna is asleep, this device will automatically swicth off the light. The workings of this device are when penggunas put their head on the pillow, the Load Cell sensor will detect the pressure between the pengguna and the pillow. After that, the MLX 90614 sensor will detect the decrease in body temperature. The data from the sensor will be sent to the Bluetooth connection and help to switch off the light.

Keywords: Arduino Uno R3, Load Cell Sensor, MLX 90614 Sensor, Pillow, Sleep.