

## **ABSTRACT**

*Robot is a hardware which have purpose to help people to do something. The development of robots at this time have a various types with high technology like robot for industry , military weapon , entertainment and medical.*

*This Research will be design a finger robot hand that can move like human fingerhand. Human hand wear a glove that already provided flex sensors in each finger . Flexsensor data will be processed and delivered in wireless to the servo motor as actuators robot . Processing information from the robot based on microcontroller .*

*This robot have purpose to grip or take something. Testing held to proves how strong the robot can achieved and how far range between the glove and the robot can connected.*

*The result show that the value of flex sensor inversely proportional with the angel, the biggest resistance is kelingking with 146,19 k $\Omega$  when the position at 0°, and the smallest resistance is jempol with 9,88 k $\Omega$  when the position at >90°. And then this robot can grip about 6 kg and the distance can be reached between the glove and the robot is 24 m with real-time movement..*

*Keywords : Flex Sensor, Microcontroller, Xbee S1, Servo Motor*