ABSTRACT

Along with the times, the development of robotics technology is currently in the industry also continues to grow. In industrial robotics technologies used to facilitate the work. One example in the case of monitoring an area for security.

In this thesis the author will design the wake regulator at the camera to follow the motion of the head to monitor the surrounding area. This system serves to drive the servo motors certain direction based on the direction of view of the users using Gyroscope sensor. Gyroscope sensor for communication between the camera will use the XBee and also using the Arduino microcontroller fio.

Results of the tools that have been made to produce high accuracy is 96.74%. For the results of which 95.77% accuracy pitch and yaw accuracy is 95.88%..

Keywords: **Gyroscope, Xbee, Arduino, Head Tracking**