

ABSTRACT

Robocup SSL (Small-Sized League) is a soccer robot competition that aims as one of the research developments in the fields of artificial intelligence, robotics, programming, communication, and image processing. Football robot is a robot that functions to play football like humans by using various strategies and abilities. The ability to chip kick is one of the important systems that must be present in soccer robots, because this system can support the strategies used in soccer games. This final project makes the chip kick system on a soccer robot.

Where the ultrasonic sensor will be used as input on the soccer robot and the actuator output in the form of a push-pull solenoid to do the chip kick.

This final project research uses Fuzzy logic method to help the processing of data obtained by the sensor, so the system can provide recommendations on what voltage and kicks are needed by football robots. With testing that has been done, the chip kick produced by the system can pass obstacles from 50 Cm to 70 Cm distance, moreover the kick chip produced cannot pass the obstacle. From the results of the system, it is expected to add variations in the strategy of soccer robots.

Keywords: *Robocup SSL, Soccer Robot, Chip Kick, Straight Kick, Fuzzy Logic*