

FOOTBALL ROBOTS WON EXCELLENCE PRIZE IN MOE COMPETITION

With the project of “The Design and Practice of FIRA 3 on 3 Football Robot,” Dept. of Electrical Engineering won the Excellence Prize in the 2004 School Year competition of

“Project of Improving Integrated Technological Education in Exact Electro-Mechanical Engineering” sponsored by Ministry of Education. TKU team beat Taiwan University team, but losed to Chen Kong University and Chang Gung University.

The project subjects in this national competition are various. TKU team has to outshine other teams with diverse subjects and compete with Taiwan University team with the same subject. To report on the project and answer all inquiries in English is another challenge for TKU team members.

During the game against Taiwan University team, firstly both teams took turns to report for six minutes, and then had a simulated game for ten minutes, in which TKU beat TU two to one. After that, the judge raised questions to both teams, and decided that TKU was the winner.

According to Dept. of Electrical Engineering, the structure of the football robot is made of aluminum in a unified shape of only 7.5 cubic centimeter. The operative system consists of three parts—image grasping, strategic mapping, and hardware operation. The image is grasped through the CCD set above the simulated football field. The position of the robot and the extent of its surrounding is caught by spotting the shade of the robot, and then they are transmitted to the strategic center for direction. The image grasping section is responsible by Heng-ta Chou, the

strategic mapping by Cheng-chung Hsu and Kuan-hua Chen, and the hardware construction by Yia-lin Lee and Wei-wen Wang.

(Chi-szu Chen)

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