

Windows-based humanoid bots win 2007 RoboCup

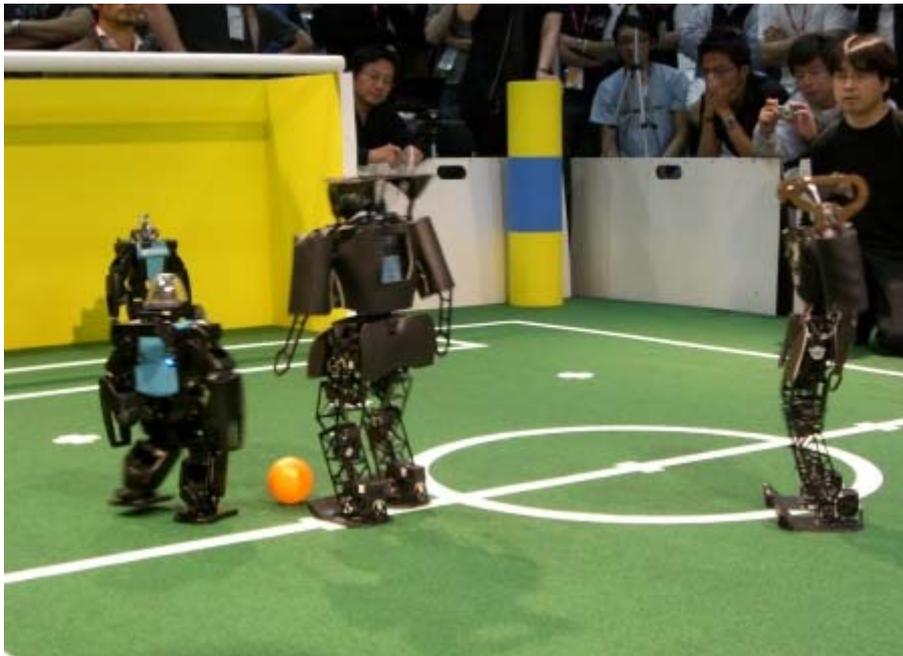


Windows-based robots have won the two-legged soccer competitions in the RoboCup 2007 humanoid league. German team NimbRo defeated reigning champion Team Osaka in a two-on-two match, and bested Spanish team PAL Technology in a penalty kick competition.



Vaio UX UMPC

NimbRo's two-legged "KidSize" robots, just under 2 feet tall, feature 20 joints driven by intelligent actuators. According to Sven Behnke, head of the Humanoid Research group at the University of Freiburg's Computer Science Institute, the autonomous robots are controlled by a [Sony Vaio UX UMPC](#) running Windows XP, located in the upper part of the trunk. Three wide-angle uEye USB cameras allow the robots to perceive the field.



NimbRo's kid-sized robots (right) defeating Team Osaka

"The exciting game was open until the very end," reports Behnke. "The Osaka robots were very quick to approach the ball and to kick it across the field. The NimbRo robots Rudi, Juergen, and Lothar excelled in one-on-one fights for the ball and also demonstrated nice team play."

As the following YouTube video of the match demonstrates, the robots showed good ability to recover from falls and strategize with teammates. The final score: 8-6 in NimbRo's favor.



In a separate penalty kick competition, NimbRo's four-foot-high "TeenSize" robots -- also running Windows XP -- were tied 4-4 after five alternating trials. Then, "Bodo" successfully defended its goal and "Robotina" scored the final goal. Thus, the final ended 5-4 in NimbRo's favor.



NimbRo's teen-sized robot "Robotina" winning a penalty kick competition

All in all, Windows XP dominated the humanoid league of RoboCup 2007, since the runner-up robots of Team Osaka, the VisiON 4G and Vstone810, also run that operating system.

The next RoboCup will be held in July 2008 in Suzhou, China. For more information, visit [the official site](#).

For more information on Nimbro, visit [NimbRo.net](#).