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Robots compete in football league

There is a serious side to the 2005 RoboCup US Open but there is also a lot of fun to be had watching robot dogs playing football.

The event has become the robotic version of the football World Cup and is a fertile meeting ground for robot researchers.



The robot dog football match is a popular competition.....

The software that drives the footballing canines has practical real-world applications as well.

Organisers plan the ultimate human versus robot football game in 2050.

Search and rescue

This year's US Open had 30 teams made up of 200 researchers battle it out in the three-day robot games.

Of the five events, robot dog football remains the most popular.

In it, computer-programmed Sony Aibos look for the ball using cameras on their noses, communicate with each other over a wireless network and attempt to score goals, with the exception of the speciallyprogrammed goalkeeping dog.

Another competition sees a Segway-riding human paired



with a robot in the ultimate human/robot football team.

The search-and-rescue event is the only non-football based competition in which robots are put into a mocked-up postearthquake scenario to find victims in collapsed buildings.

It illustrates the serious spin-offs that the competition can inspire.

"A lot of the US researchers are also working for the Department of Defence," said Tucker Balch, chairman of RoboCup and professor of Computer Science at the



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Georgia Institute of Technology, where the competition is being held.



The Segway event teams humans with a robot companion

There are two areas of research - surveillance robots

that are sent in ahead of troops on the field of battle and rescue robots that can be trained to search for bodies following a terrorist attack or natural disaster.

Since the first RoboCup back in 1997, Professor Balch has seen big advancements in the arena of robotics.

Cute dogs

The most challenging thing remains writing software that will create smart robots, he said.

Football is chosen as the main way of putting the robots through their paces because it is easy to understand the immediate goal.

"It is a short step from robot soccer to other useful domains such as robots that clean the house or work in an office or on the battlefield," said Professor Balch.

However sophisticated the robots become there will always be a special place for the robot dogs though.

"It is popular because they really look like dogs and humans are naturally sympathetic towards them," he said.

This year's competition is sponsored by German robotic firm KUKA.



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