

Australia's robo-footballers go for gold at world champs

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A roar rings out as a small, white robot wins a tussle for the ball and kicks it into the goal.

Australia's roboteers Friday put their bipedal humanoids through their paces ahead of the world championships in Japan next week with one task in mind—to claim the RoboCup trophy for a record sixth time.

The contest is celebrating its 20th anniversary this year, with the two key contenders from Australia and Germany, who have both won five championships each.

An even bigger goal looms ahead in 2050 with roboticists hoping to advance their development of artificial intelligence to the point where they can take on and beat the human World Cup champions.

"Every team has exactly the same [robot](#), and it's all about who can come up with the best software to make the robots play soccer," team supervisor Timothy Wiley of the University of New South Wales (UNSW) told AFP.

"We've got a lot of expertise in what we call autonomous robotics. So this is getting robots to think and act for themselves, and this is what has allowed us to do really well over the last few years."

While the human version of the game has long used a black-and-white ball, the robots are still getting used to the monochrome colours.

"They introduced the black-and-white ball for 2016, and that's actually really difficult because the robots have no depth perception," first-time RoboCup participant and UNSW student Amri Chamela, 19, told AFP.

"So there's been a major challenge for the team in actually having to identify this (ball)."

This year, the Aussie robo-footballers—named after Pokemon characters Eevee, Mew, Abra, Pikachu, Rapidash and Ditto—also have to adapt to a bouncier artificial turf after years of playing on green carpet.

Team leader Hayden Smith believes the new challenges will ultimately pay off for the wider population, with the [artificial intelligence](#) being developed for such games set to assist humans in everyday tasks.

"This has a lot of real-world applications. We've had people in this team move on to... self-driving car companies, other robotics companies," the 24-year-old said.

"They take parts of either the vision system knowledge that they develop or knowledge of motion of how robots move and apply them in their occupational work."

The RoboCup World Championships are at the Nagoya International Exhibition Hall in Japan from July 27-30, with 24 teams from 15 nations competing.

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