

aaai-98 — the fifteenth national conference on artificial intelligence

Sponsored by the American Association for Artificial Intelligence

Seventh Annual Mobile Robot Competition and Exhibition

Competition Final Standings

Event I: Find Life on Mars

Mission Objective: The goal of the Find Life on Mars event is to seek out new life forms, collect them, categorize them, and return them back safely to the Mars Lander.

Scenario: The robot has just landed on Mars. It is an inhospitable place: polished cement ground, large black rocks, danger zones, and other obstacles jutting from the Martian landscape. Behind the robot sits the Mars Lander. It is the capsule that the robot rode for many weeks to get here. It has two access doors on its narrow ends. This is where the robot will deposit life forms. Time is of the essence. The robot only has five to ten minutes to carry out its mission. As the robot boldly goes where no robot has gone before, it sees nothing but the desolate Martian rock and obstacled landscape. But wait, there it was again. A small colorful object about the size of a tennis ball. The robot races to the Martian, picks it up, carries it back to the Lander and places it carefully into one of the two access doors, and off it goes again.

Spirit of the Games: The purpose of the Find Life on Mars event is threefold: Promote new research and innovative ideas in robotics. Encourage robust, real-world solutions. Enhance information exchange between researchers.

Final Standings

Object Manipulation Category

University of Texas Arlington

Robot: Maverick

Team Leader: James Poole

Team Members: Kiyoko Fujita, Brandon Hennegan, Cary Pilers, Priyath Sandanayake, Michael

Tran, and Shar Whisenhunt.

University of Southern California

Robots: Kuntur, NinaNina, Ben, Mae, Ullanta-the-Robot-Levin

Team Leader: Barry Brian Werger

Team Members: Goksel Dedeoglu, Brian Ellenberger, and Monica Nicolescu

Object Recognition Category

McGill University Robot: Invader

Team Leader: François Belair

Team Members: Scott Burlington, Robert Sim, Eric Bourque, Andrew Ladd, and Gillaume

Marceau

University of New Mexico

Robot: Moneuver

Team Members: Traci Vanek, Maureen Ballas, Melody Romero, Jane Canulette, Liz Kurens,

and Rhonda Arkana

Event II: Hors d'Oeuvres Anyone?

This event will take place during the AI Festival on Wednesday evening in the exhibit hall. Robots may either be in a penned area, or free to mingle with all attendees. Objective: The objective of this competition is to act as service robots, serving hors d'oeuvers to attendees at the reception, and handing out flyers and making announcements between regular conference sessions. This year, each contestant is required to explicitly and unambiguously demonstrate interaction with the spectators. In keeping with the IJCAI panel "The Next Big Thing," more natural modes of communication are necessary for society's acceptance of robots. Furthermore, this helps distinguish the AAAI competition from other competitions. Also different from last year, robots will be allowed to touch attendees! Specifically, in their attempt to serve food, a robot may "nudge" a person in order to get through a crowd and serve food to other groups of people. In addition to emphasizing interaction with attendees, manipulation is encouraged, either by refilling serving trays autonomously, or in physically handing out the food or flyers to the attendees. Awards: Of greatest importance this year will be a series of Technical Innovation Awards that will be given for specific accomplishments. These will highlight entries that have some noteworthy innovation regardless of how well the entry performed in the competition, and will be awarded in such areas as: distinguishing humans from inanimate things (they don't offer cookies to tables!), gesture recognition, nudging using a manipulator, personality, enabling two-way conversations with a human being, use of vision-based sensing, recognizing VIP's by ribbons on badges and addressing them differently, and best integration effort. In addition to the Technical Innovation Awards, the reception event will have a first, second, and third place award for technical merit, based on the judges' scores from the Qualification / Safety Round and from the performance in the reception event. In order to determine these prizes, robots will actually be scored based on

Technical Awards

First Place

Rusty the B.E.A.R., University of North Dakota

Second Place

LOBOtomous, University of New Mexico

Third Place

Ben, Mae, Ullanta-the-Robot-Levin, University of Southern California

Participation Award

Twinkletoes, TRACLabs

Popular Awards

First Place

Rusty the B.E.A.R., University of North Dakota

Second Place

LOBOtomous, University of New Mexico

Third Place

Twinkletoes, TRACLabs

Fourth Place

Ben, Mae, Ullanta-the-Robot-Levin, University of Southern California