The AAAI-97 Mobile Robot Competition: Martians, Remotes, Hors d'oeuvres, and Cleaning up the Mess Afterwards

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This years competition, the sixth annual held at AAAI, continues to expand upon the legacy of those which preceded it. In this talk we first review the event's history and goals. This year, however, marks a significant departure from the past. We survey the four different events which make up this year's competition (Find life on Mars, Find the Remote Control, Home Vacuuming, and Hors d'oeuvres anyone?). Their significance to the AI and Robotics communities lies along several lines: addressing opportunities in the exploration of Mars that are inspired by NASA's recent launch of the Pathfinder mission and its Sojourner robot, coupled with the teasing scientific possibility of life on that planet; developing assistive robotic technology for the disabled; mainstreaming service robot applications; and heightening human-robot interaction by having robots serve food to the AAAI conference attendees at this year's conference reception. This talk aspires to provide the research and intellectual backdrop that highlights the various aspects of AI, robotics, and computer vision which are challenged by each event, and to describe which specific research approaches are being used by the various competitors, that you may have only read about but not actually seen in action.