



Tentative Workshop Plan and Schedule

Workshop 1 – Robots and Creativity: will explore the role creativity plays in robotics through a panel-style discussion. The first role looks at research where robots display creativity. Examples include robots involved in gaming, dancing, painting, and instrument playing. Excelling at such tasks demands a certain level of cognition for strategy, interpretation and expression. Such research often employs cognitive models and computation that explain or simulate creativity. The second role examines cases where creativity is combined with design and engineering to stimulate robotics research. Collaborations that involve people from diverse backgrounds often generate a creative synergy that stimulates breakthroughs. Examples include research that involves performance artists, therapists and linguists that discover new ways for human-robot interaction and socialization.

Workshop 2 – Mobility and Manipulation: explores the role perception and cognition play to advance this field of robotics. The underlying motivation stems from the fact that systems are too slow to truly be useful. The DARPA Urban Challenge is an example; unmanned vehicles can negotiate traffic in an urban setting but move very slowly and cautiously. New models of cognition and perception are needed so such vehicles can recognize traffic patterns and update driving behavior accordingly. Collaborative robots designed to assist in factories are another example. Such robots may have versatile grippers (like multi-fingered robotic hands) but identifying appropriate grasps is time consuming. Making such robots practical for use on the factory floor also demands new models of cognition and perception. The robot must quickly: recognize part shapes; plan motions in the robot’s workspace; and configure appropriate grasps to manipulate parts.

A tentative schedule and panel list for these two workshops is given in the table below.

09:00	“Robotics and Creativity” Workshop: 4 panelists (to be determined)
10:30	Coffee Break
10:45	<ul style="list-style-type: none"> • Exhibitors give 5-min overview of role creativity plays in exhibit • Video Session: “Robots Demonstrating Creativity”
11:45	Discussion and Roadmap brainstorming
12:30	Lunch
14:00	“Mobility and Manipulation” Workshop: 4 panelists (to be determined)
15:30	Coffee Break
15:45	<ul style="list-style-type: none"> • Exhibitors give 5-min overview of mobility and manipulation exhibit • Video Session: “Most Interesting Part Your Robot Has Grasp(ed)”
16:45	Discussion and Roadmap brainstorming
17:30	Adjourn

July 14, 2008 Workshop (Tentative Schedule)