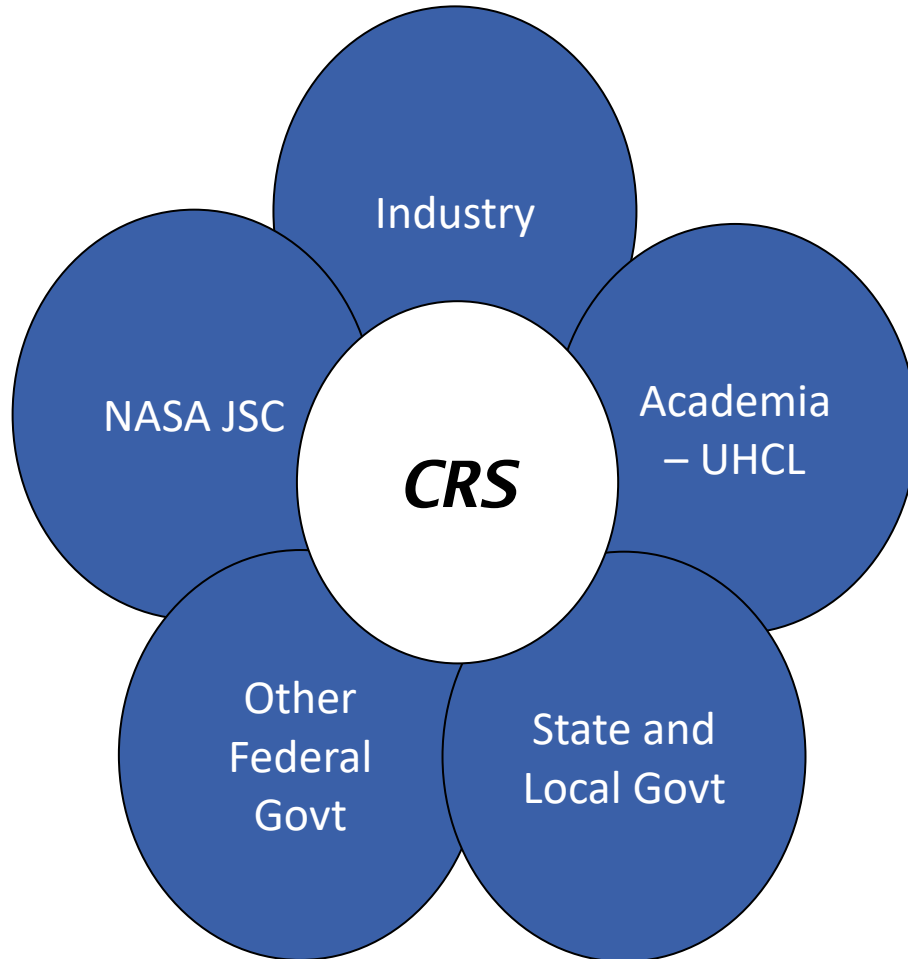


Center for Robotics Software
ROS I SEMINAR



Thomas L. Harman, Ph.D. Director

Carol Fairchild, Co-Director

281 283-3774, 281 283-3825

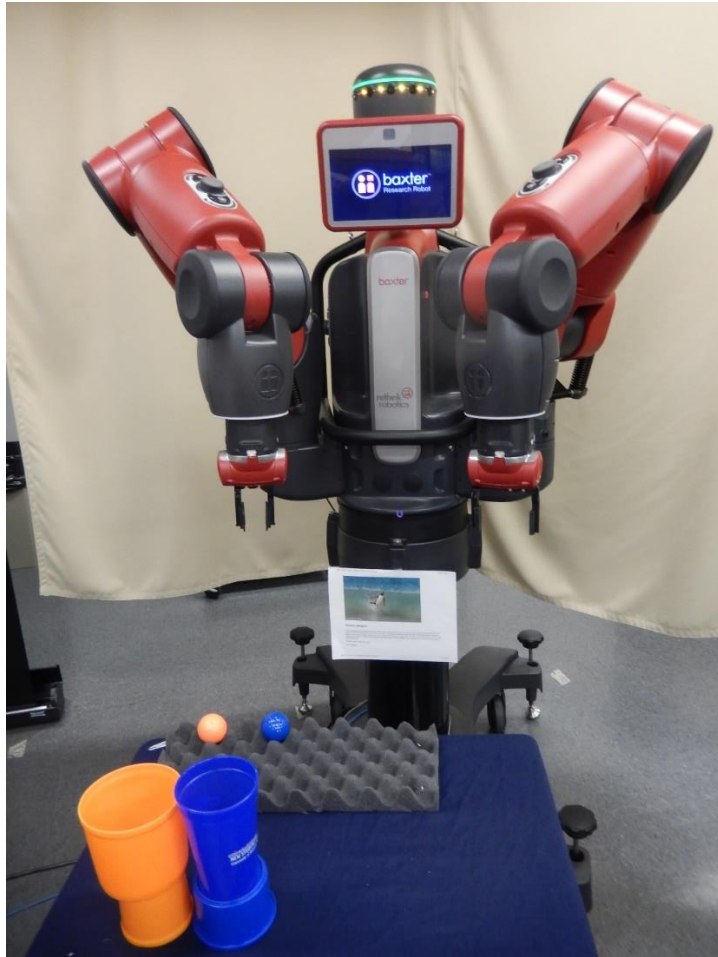
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3 DAY SEMINAR IN ROS ROBOTIC TECHNOLOGY

SCHEDULE

	DAY 1	DAY 2	DAY 3
9-10:30	Introduction to Center for Robotics Software Introduction to ROS, Current State of ROS, ROS Robots, ROS Community	Create your ROS workspace and package Create a simple robot model Rviz, Gazebo, URDF, Xacro	Collaborative Robots Baxter and Sawyer Baxter's hardware and software Control Methods for Baxter's Arms
	Break	Break	Break
10:45-12	ROS Architecture, and Elements: Packages, Nodes, Topics, Services, Messages, Parameters, ROS communication	Introduction to Mobile Robots and ROS ROS robot TurtleBot in Simulation	Baxter Simulator Baxter Kinematics: Forward and Inverse
12-12:45	LUNCH	LUNCH	LUNCH
1-2:45	ROS Control Methods, Manual, KBD, Joystick, visual rqt plugins ROS testing and Debug, Log messages, rqt-graph, rqt-plot, rviz, rosbag	Odometry Navigation with ROS Control Methods, Python, C++ Basics of Transforms tf	Movelt for Trajectory Control and Planning Sawyer and the Intera Software Applications
	Break	Break	Break
3-5	Exercises, Simulations and Demonstration of Real Robots	Hands On Simulation and real Robot Operation	Simulation and Hands On Baxter Operation

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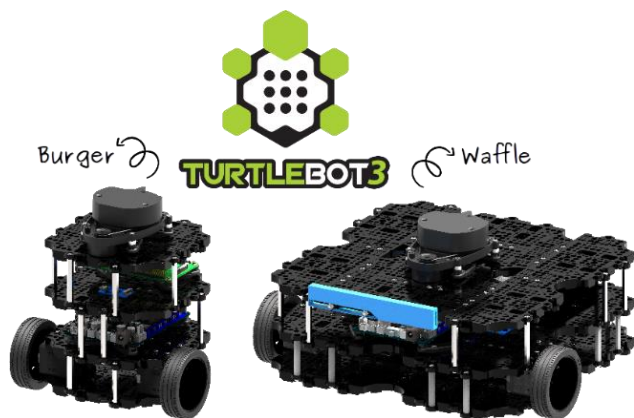
BAXTER THE TWO ARMED ROBOT



Rodney Brooks with Sawyer and Baxter



TurtleBot 2



Bebop Drone Aloft