



ROS-I Developers' Training

The ROS-Industrial Consortium Americas is providing a three-day [ROS-Industrial Developers Training Class](#) with both Basic and Advanced Track Offerings on ROS 2 Foxy. The class will run three full days. The class will run two full days with a Day 3 focused more on exercises/lab type application. This class will be hybrid and will be provided via AWS EC2 instance. The class is geared toward individuals with a C++ programming background who seek to learn to compose their own ROS nodes. Day 1 will focus on introductory ROS2 skills (Details Below). Day 2 will examine motion planning using MoveIt2, as well as the Descartes planner and perception concepts. In person option advanced topic on day 1 and hands-on lab with an industrial manipulator on Day 3.

Agenda

The ROS-Industrial *Consortium* is a membership organization. Training is free to dues-paying members (limit three seats per Full member, two seats per Associate member, and one seat per Research member). Others may attend for a fee of \$2,199.

Class Prerequisites:

Basic understanding of programming (C++ preferred), Ubuntu Linux, and Linux command line. If Linux and C++ are new to you, complete [the prerequisites](#) of the online curriculum for background.

Event Location:

Southwest Research Institute
6220 Culebra Rd., San Antonio, TX 78238

Accommodations:

Courtyard by Marriot SeaWorld/Westover Hills
11605 TX-151, San Antonio, Texas 78251
(Block Reserved under ROS-I, Transportation to and from SwRI included!)

For more information, please contact:

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		Basic	Advanced	
Classroom	Day 1	0815	Depart from the hotel	Depart from the hotel
		0835-0900	Sign-in, Introductions, and Agenda	Sign-in, Introductions, and Agenda
		0900-1015	ROS Setup, Catkin, Installing Packages	Intro to Perception Pipeline
		1015-1030	Break	Break
		1030-1200	Creating Packages/Nodes, Topics, Messages	Building a Perception Pipeline
		1200-1300	Lunch (Provided) – SwRI Overview Presentation	Lunch (Provided) – SwRI Overview Presentation
		1300-1430	Services, Actions	Bridge introduction and Exercise
		1430-1445	Break	Break
Classroom	Day 2	1445-1700	Launch Files, Parameters	Bridge Exercise Wrap Up
		1720	Wrap-up	Wrap-up
		0815	Depart from the hotel	
		0835-0900	Recap and Agenda	
		0900-1015	URDF, Workcell XACRO	
		1015-1030	Break	
		1030-1200	TF, Build a MoveIt! Package	
		1200-1330	Lunch (Provided)	
Lab	Day 3	1330-1500	Motion Planning Using Rviz, C++	
		1500-1515	Break	
		1515-1700	Introduction to Descartes Path Planning and Perception	
		1720	Wrap-up	
		0815	Depart from the hotel	
		0835-0900	Recap and Agenda	
		0900-1030	Lab Introduction, Labs	
		1030-1045	Break	
1045-1200	Work on Lab Applications			
1200-1245	Lunch (Provided)			
1245-1530	Work on Lab Applications			