

## Prerequisites

Please bring a laptop to the class with the ROS-I training [Virtual Machine](#) pre-installed.

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

This ROS-Industrial training will review ROS command line instructions, basic ROS concepts, MoveIt, Descartes, and PCL/Perception. On Day 3, students will choose one or more Labs to work on in the morning.

For more information, please contact:

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## Registration

Please register here:

<http://rosindustrial.org/training-registration>

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).

For this training event we have partnered with Silicon Valley Robotics. We are offering a discount to SVR corporate members. Members of the Silicon Valley Robotics organization get a \$100 discount (valid for company/startup memberships).

The full price of training is \$2,199.



## Developers' Training

Program and Agenda

<http://ROSindustrial.org/events/>

November 16 -18, 2015

# Please Join US

## *The Open Solution for Advanced Automation Software*

We are delighted to invite you to attend our next ROS-Industrial Basic Developers' Training Class November 16-18, 2015. This class is similar to the one we held in May earlier this year; it is geared toward individuals with a programming background who seek to learn to compose their own ROS nodes (in ROS Indigo). The first day will be focused on background ROS/ROS-I skills. The second day will cover MoveIt!, Descartes, and PCL Perception. Day 3 offers a lab programming exercise (with a choice of): Simple Perception Lab, Simple MoveIt! Application, Simple Descartes Application, and a collision-free pick-and-place Application. You will need to bring a laptop to the class, with the training exercise [Virtual Machine](#) pre-installed.

## Agenda

Nov. 16 Classroom	0800-0830	VM Check
	0830-0900	Welcome
	0900-1015	Installing ROS, ROS Packages
	1015-1030	Break
	1000-1200	Parameters, Topics Messages
	1200-1300	Lunch (provided)
	1300-1430	Services, Actions
	1430-1445	Break
	1500-1615	Launch Files, URDF
	1630	Wrap Up
Nov. 17 Classroom	0830-0900	Review Day's Agenda/Announcements
	0815-1000	MoveIt, Build a a MoveIt Package
	1000-1015	Break
	1015-1200	MoveIt in RViz, MoveIt in C++
	1200-1300	Lunch (provided)
	1300-1500	Descartes
	1500-1515	Break
	1515-1615	Perception
1615-1630	Wrap up	
Nov. 18 Lab	0830- 1200	One of: Pick-And-Place Application Descartes Demo MoveIt! Application Perception (PCL) Lab

## Meeting Location



### *Flex*

Flex Building 5  
847 Gibraltar Drive  
Milpitas CA 95035 USA  
[Google Map](#)