

Tordivel AS  
Storgata 20, N-0184 Oslo, Norway  
www.scorpionvision.com



## SCORPION VISION TRAINING COURSE OSLO, NORWAY - DECEMBER 8 - 10, 2015



Fly in to the best machine vision training and learn from the experts behind Scorpion Vision Software®. Learn how to build complete and compact machine vision systems with our Scorpion 2D and 3D Stinger cameras. Attend one, two or all three days.

The course is based on the newest Scorpion Vision Software® version XI release 10 including 3D Stereo Vision and 3D Robot Vision.



### VENUE

Tordivel AS  
Storgata 20, N-0184 Oslo, Norway  
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### TIME

Day 1, 10:00 - 18:00  
Day 2, 09:00 - 17:00  
Day 3, 08:00 - 15:30

### PRICE

500 € per day. Lunches and one social dinner are included.  
Accommodation is not included and must be arranged by the participant.  
The course fee must be paid prior to the course.

### COURSE CONTENT

The course content is divided into three days of basic training, compact vision systems and 3D machine vision:

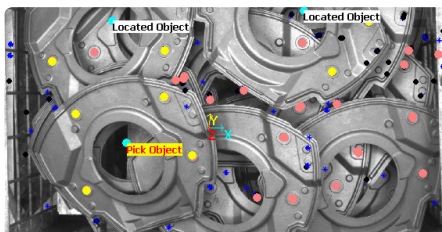
Day 1 - Basic Scorpion Vision Training - learn how to create your own 2D machine vision system.

Day 2 - Introduction to Scorpion Compact Vision systems. Learn how to configure a complete vision system with Scorpion 2D Stinger Camera, Stinger LEDspot and Scorpion Ultra Compact PCs. Scorpion Tool Components - STC

Day 3 - Scorpion 3D Stinger in action - learn the basics :

- 3D stereo vision
- One Shot 3D Calibration
- Laser Triangulation
- Multiline laser
- RPP Laser and Dense 3D point clouds

You will learn by hands on 3D calibration and robot calibration exercises and from demonstrations of Scorpion 3D Stinger robot guiding and other solutions.



*Scorpion 3D Stinger™ for Robot Vision is designed to solve manufacturers' classic challenge: Picking parts from a conveyor belt, a pallet or a bin.*

### INTERNET RESOURCES

Scorpionvision's Blog  
Tordivel's Blog  
Scorpion Q&A  
Scorpion Online Help

### 3D MEASUREMENTS

A key feature in Scorpion Vision Software® is the ability to create and use 3D images. The ability to combine 3D reference systems with any 2D image is unbeatable!

### INCLUDED IN THE COURSE FEE

- Scorpion CD with course documentation, examples and more.
- Free participation when buying a Starter Kit upfront the course.
- Lunch and one social evening dinner

**Note.** All participants need to bring their own PC running Windows with administration rights. We recommend an external mouse.

See the next page for the Course Agenda.

### WHY CHOOSE SCORPION 3D STINGER?

1. It is fast, robust and accurate.
2. The Scorpion 3D Stinger Camera is easy to install and deploy.
3. It can be used for any robot vision application.
4. It handles illumination variations.
5. It runs on a standard Industrial PC
6. Requires no knowledge of 3D machine vision

### REGISTRATION

Tordivel AS  
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Scorpion Vision Software® is a registered trademark and Scorpion 3D Stinger™ is a trademark of Tordivel AS.  
www.scorpionvision.com



## AGENDA



*Scorpion2D Stinger Camera*



*Scorpion Compact Vision*



*Scorpion 3D Stinger Camera*

Scorpion Vision Software® offers a large reduction in the development time and deployment and maintenance cost for machine vision systems. Applications are customised smartly and expeditiously with the flexible user interface. Join us and see how!

DAY 1 SCORPION VISION BASIC TRAINING		
10:00 - 12:00	Scorpion Vision Software® Introducing Scorpion Vision Software® Installing Scorpion Vision Software XI	Presentation
13:00 - 17:00	Getting Started Tutorials  Learn how to create your own 2D machine vision solution with Scorpion Vision Software.	Excercise
17:00 - 18:00	QA - User Cases	Discussion

DAY 2 SCORPION COMPACT VISION		
09:00-10:00	Recap the "Getting Started Tutorials"	Presentation
10:00 - 12:00	Scorpion 2D Stinger Vision Systems Introducing components: Scorpion 2D Stinger Camera, LED light and compact PC's.	Presentation
13:00 - 14:00	Using the Connecting Scorpion 2D Stinger Camera	Presentation
14:00-17:00	Configuring a complete system - Advanced Tutorial Working in the Toolbox	Exercise
17:00 -	QA - User Cases	Discussion
19:00-22:00	Evening Dinner	All

DAY 3 SCORPION 3D STINGER™ TECHNOLOGY		
08:00 - 11:00	Introduction to Scorpion 3D Vision 1. Active and Passive 3D Stereo Vision 2. 3D camera calibration 3. 3D Laser triangulation 4. Multiline laser processing 5. Dense 3D Stereo Vision and RPP Laser	Presentation
	3D calibration and robot calibration	Exercise
11:00 - 12:00	Scorpion 3D Stinger systems 1. Introducing and demonstrating components	Presentation
13:00 - 15:00	Scorpion 3D Stinger systems 1. Single Camera 3D Demonstration 2. Scorpion 3D Stinger RPP Camera 3. Scorpion 3D Stinger robot guiding solutions 4. Demo of other Scorpion 3D Stinger system solutions. 5. Discussion - user cases	Presentation/ Demo
15:00 -	QA - User Cases	Discussion

### ONLINE TUTORIALS

Prepare yourself and get an idea of the course content with our online tutorials at:  
<http://scorpion.tordivel.no/Profiles.htm>