

## SKILLIGENT ANNOUNCED IT HAS ADDED A "LASER POINTER DETECTION AND TRACKING" FEATURE TO RELEASE 2.0 OF ITS SOFTWARE PRODUCT

By Skilligent LLC (<http://www.skilligent.com>)  
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*Skilligent added a "laser pointer detection and tracking" feature to Release 2.0 of its ground breaking Robot Learning and Behavior Control System software. The feature provides robot users with an additional mechanism for interacting with trainable multi-task service robots guided by the software.*

Skilligent LLC today announced that a "laser pointer detection and tracking" feature has been incorporated into the Release 2.0 of Skilligent's Robot Learning and Behavior Control System software. The feature simplifies the robot training process and provides robot users with new exciting means of interacting with their robots.

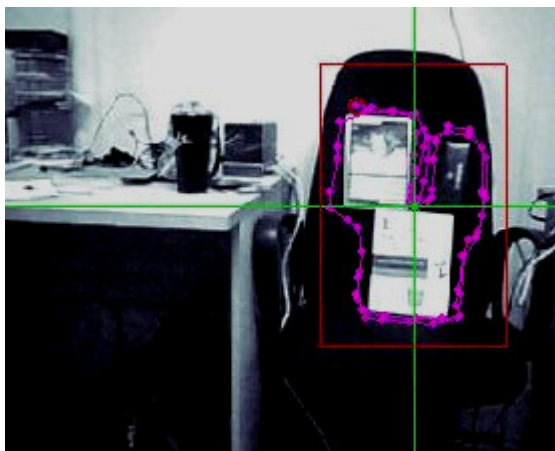


Figure 1 A group of objects selected using a laser pointer (as seen by a robot)

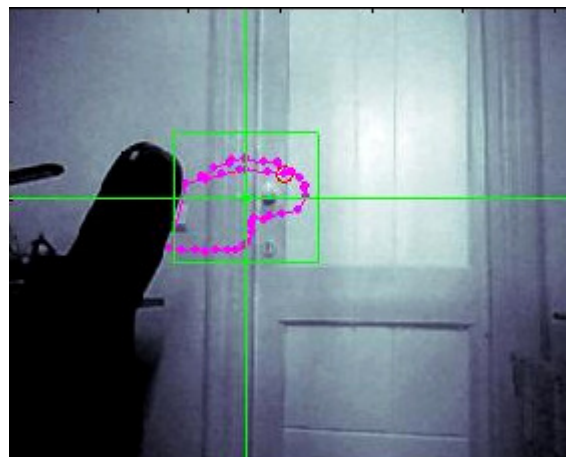


Figure 2 A landmark shown to a robot using a laser pointer (as seen by a robot)

The software uses a set of signal processing algorithms to visually detect and track a "red spot" created by a laser pointer. The trajectory of the laser spot is estimated and checked against a set of known user-to-robot interaction patterns. The laser spot tracking functionality is embedded into Skilligent Robot Vision System.

For example, to attract a robot's attention to an object, a user shall move a laser pointer's spot around the object. The robot tracks the red spot, memorizes the object in its image database and starts visually tracking the object. The object then is used for teaching the robot a new behavior.

"In the past we had to wave an object in front of the robot's camera in order to attract the robot's attention to the object. The waving motion caused the robot to memorize the object and start tracking it. Although it worked well with small objects such as a

book or a cup, the method did not work with heavy objects such as a piece of furniture or objects mounted on walls. The laser-based method addresses this issue”, says Andrey Krasnikov, a Skilligent Principal Scientist.

“Skilligent was the first company to introduce commercial trainable control system software for service robotic applications. The ground breaking software allows the robots to be trained via gestures and simple signals, just like pets. The software eliminates the need for mission-level or application-level programming as it enables the robots to get “on-the-job” training from their users. The introduction of the laser-based control confirms Skilligent’s commitment to the goal of building a learning control system for service robots which non-professionals can use”, says Sherrie Shearer, Skilligent’s COO.

### **About Skilligent LLC**

Skilligent develops and markets a trainable robotic control system for multi-task service robots. The company employs a team of talented engineers and researchers with backgrounds in control systems design, industrial automation, robot vision and embodied cognition.

<http://www.skilligent.com>