

# Leica iCON robot 50

## Robotic total station for one-person operation



**icon**  
intelligent CONstruction

### With Leica iCON robot 50 you don't need an operator at the instrument.

The robotic total station can be operated from the field controller at the prism pole, at the point you need positioning.

- Most accurate reflectorless measurements in its class
- One-button keyboard for simple operation
- Unique PowerSearch option for fast prism acquisition
- Communication options for different needs
- Ready to use in 3D machine control
- Easy hand-over control from rover to machine control and vice versa
- Wide range of applications through the custom-built iCONstruct software

Optional handles with long range Bluetooth®

Accurate automatic target recognition

Reflectorless measurement to 250 m

Unique Leica PowerSearch function. Rapid automatic finding of prism

One-button keyboard for easy operation on site

Electronic Guide Light (EGL) assists operator with prism targeting



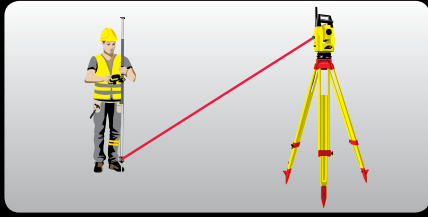
- when it has to be **right**

**Leica**  
Geosystems

## Leica iCON robot 50

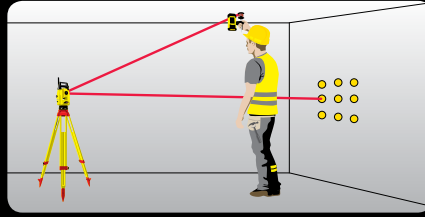
Stake-out, Machine Control, Grade Check ... You can do it all!

**icon**  
intelligent CONstruction



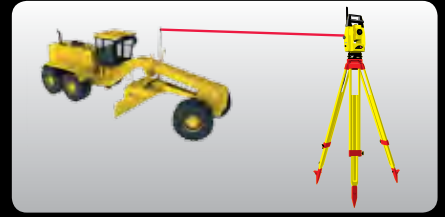
### One man robotic

Increase your productivity by working in one-person mode. With industry leading tracking performance and the patented PowerSearch technology, Leica iCON robot 50 allows you to finish jobs faster maintaining highest accuracy.



### Interior overhead with laser pointer

Using one of the world's most accurate laser pointers, remotely layout points on walls for drill patterns or on ceilings for air conditioning or other such projects.



### Machine control

Work to the tightest tolerances under any site conditions. With Leica iCON robot 50 you can carry out fine grading and paving with highest precision speeding up your work with construction machinery.

### Specifications

<b>Distance Measuring Accuracy (ISO17123-4)</b>	Standard 1 mm + 1.5 ppm Tracking 3 mm + 1.5 ppm	<b>Maximum Lock Speed</b>	5 m/s or 18 km/h at 20 m / 25 m/s or 90 km/h at 100 m
<b>Angular Accuracy (ISO17123-4)</b>	2" (0.6 mgon) and 5" (1.5 mgon) sensors available	<b>Weight</b>	4.8 kg
<b>Level Compensation</b>	Centralised dual axis compensation "Level and Go Functionality"	<b>Communication</b>	RS232, Optional long range Bluetooth®
<b>Range to Single Prism*</b>	3500 m	<b>Environmental Specifications</b>	IP54
<b>Range of ATR Mode*</b>	1000 m	<b>Working Temperature</b>	-20° C to +50° C
<b>Reflectorless Range</b>	250 m	<b>Storage Temperature</b>	-40° C to +70° C
<b>Measurement Frequency</b>	Max. 12 Hz Synchronised (0.08 s)	<b>Data Storage</b>	Compact Flash CFI cards
<b>Prism Search Functionality</b>	Power Search / ATR / EGL	<b>Laser Plummet</b>	1 mm at 1.5 m
<b>Maximum Rotation Speed</b>	45° per second		

\* All measurement specifications are to a standard Leica GRP1 prism under favorable conditions



Leica iCON robot 50 is a versatile instrument that has your entire site covered. Data capture, control measurements, stake-out, machine control and as-built site verification can be completed quickly and easily.

Packed with exciting new features, built for speed, accuracy, ease-of-use and reliability, Leica iCON robot 50 is built to impress all. It will provide you with the perfect tool for all your construction measuring and positioning needs on site.

**Reflectorless (RL):** Laser class 3R in accordance with ICE 60825-1 resp. EN 60825-1  
**Laser plummet:** Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1  
**Distance meter (IR), ATR and PowerSearch, Guide light (EGL):** Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1



**Leica MPR122, 360° prism**  
Highly accurate target, suitable for machine control.



**Leica iCON CC66**  
Rugged, mobile tablet PC with enhanced connectivity and functionality.



**Leica iCON CC80**  
Robust, light-weight tablet with multi-touch-screen and versatile communication capabilities.



**Leica iCON gps 60**  
Versatile SmartAntenna for multi-purpose positioning tasks.



**Leica Builder**  
Intuitive, powerful and scalable manual total station series for routine construction tasks on site.



The **Bluetooth®** word mark and logos are owned by Bluetooth SIG, Inc. and any use of such marks by Leica Geosystems AG is under licence. Windows and Windows CE are a registered trademark of Microsoft Corporation. All other trademarks and trade names are those of their respective owners.

### Leica Geosystems AG

leica-geosystems.com



© 2017 Hexagon AB and/or its subsidiaries and affiliates. Leica Geosystems is part of Hexagon. All rights reserved.

Illustrations, descriptions and technical data are not binding. All rights reserved. Printed in Switzerland - Copyright Leica Geosystems AG, Heerbrugg, Switzerland, 2017. 793552en - 03.17

- when it has to be **right**

**Leica**  
Geosystems