

### Springer Vieweg

1st  
edition

1st ed. 2018, XV, 267 p.  
127 illus., 123 illus. in color.

### Printed book

Softcover

### Printed book

Softcover

ISBN 978-3-658-19086-6

\$ 109,99

Available

### Discount group

Professional Books (2)

### Product category

Ph.D. Thesis

### Other renditions

Softcover

ISBN 978-3-658-19088-0

Engineering : Control , Robotics, Mechatronics

Schaub, Alexander

# Robust Perception from Optical Sensors for Reactive Behaviors in Autonomous Robotic Vehicles

## • Publication in the field of technical sciences

Alexander Schaub examines how a reactive instinctive behavior, similar to instinctive reactions as incorporated by living beings, can be achieved for intelligent mobile robots to extend the classic reasoning approaches. He identifies possible applications for reactive approaches, as they enable a fast response time, increase robustness and have a high abstraction ability, even though reactive methods are not universally applicable. The chosen applications are obstacle avoidance and relative positioning – which can also be utilized for navigation – and a combination of both. The implementation of reactive instinctive behaviors for the identified tasks is then validated in simulation together with real world experiments.

## Order online at [springer.com/booksellers](https://www.springer.com/booksellers)

Springer Nature Customer Service Center LLC

233 Spring Street

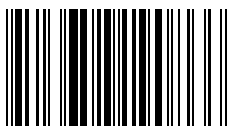
New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

[customerservice@springernature.com](mailto:customerservice@springernature.com)



ISBN 978-3-658-19086-6 / BIC: TJFM / SPRINGER NATURE: SCT19000

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**