Webots™ 5
fast prototyping and simulation software for mobile robots

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Webots™ 5
Origins of the product: 1996

CTI:
Swiss Federal Office for Technology Transfer

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Past collaborations

1998-1999:
  Khepera simulation (EPFL)

1998-2005:
  Aibo Simulation (Sony, Japan)

2003-2005:
  Dynamics simulation (EPFL)
2003: Collaboration & support (EPFL, SWIS & BIRG groups)

2005: Custom developments (Stanford Research Institute)

2006: ICEA, rat robot modeling (European project, IP-FP6)
1996: Lack for good prototyping and simulation tools in mobile robotics

Researchers had to choose between:

(1) develop their own software

(2) use / adapt standard software not specific to mobile robotics
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Competition

ODE, Havok, Vortex
Juice, FrameStick
SDFast, Boston Dynamics
Dynamechs
RoboWorks
Player / Stage / Gazebo
Custom developments

Aibo model in Webots (ODE physics)
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Product overview (1/3)

Generic robot prototyping and simulation software

Predefined robot models and sensor & actuators library

Physics simulation and complex dynamic environments (ODE)
Powerful and easy to use

Validation with transfer to real robots (Khepera, Aibo, LEGO Mindstorms, etc.)

Khepera window (linear B&W vision)

Khepera looking at stripped wall
Commercial product:
+ software quality
+ documentation
+ user support
+ maintenance
+ marketing

Soccer simulation environment
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Achieved innovation

Reference tool for research and development in mobile robotics

Setup mobile robotics experiments within minutes

More and more used for education in universities

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Since 1998, Webots was sold to over 300 universities and research centers worldwide.

Several hundreds of Webots licenses were sold to industry (mainly Sony Corp.).

Webots PRO: ~ $2,900 / $1,900
Webots EDU (10): ~ $2,600
Webots™ 5
Some of our 300+ customers (industry)
Webots™ 5
Some of our 300+ customers (academic)

Tokyo Institute of Technology

Université Paris 7-Denis Diderot

Universität Zürich

Imperial College London

University of Tokyo

Columbia University

Duke University

UCSD

Boston University
Cyberbotics teaming up with 5 other robotics SMEs: BlueBotics SA, FiveCo SA, K–Team SA, Neuronics AG and GCTronic Sàrl.

Handle large projects (hardware and software) with a wide range of industrial expertise and skills.

Webots used for prototyping, simulation & interfacing.

www.swissmobilerobotics.com
Upcoming developments: new versions with improved features and usability

Business perspectives: strengthen academic and industrial markets

Towards:
- standardization
- benchmarking
- robotics promotion
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www.cyberbotics.com