

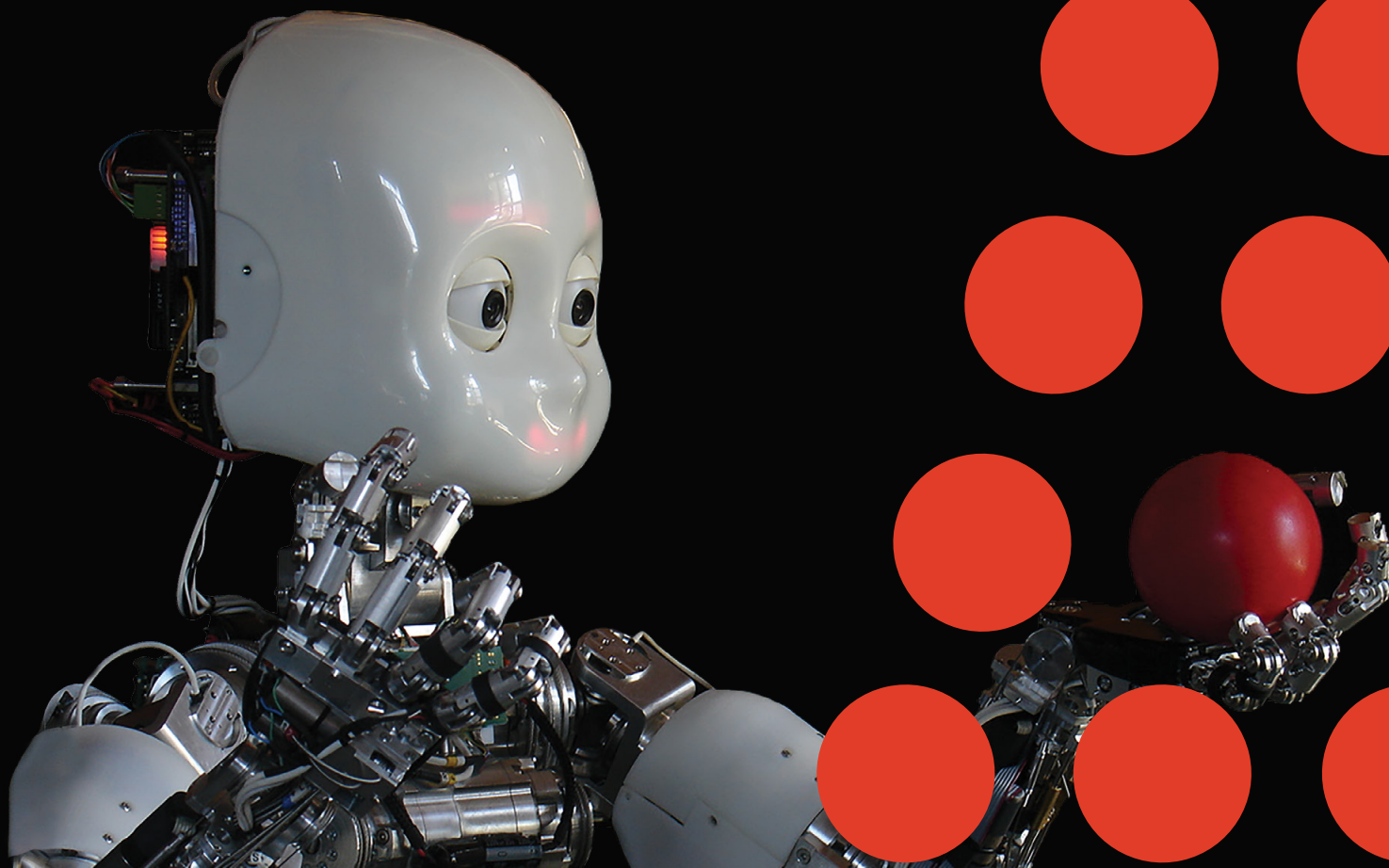


EUROPEAN
ROBOTICS WEEK

Brought to you by SPARC

ORGANISERS'

HANDBOOK &
REGISTRATION GUIDE 2016





EUROPEAN
ROBOTICS
WEEK

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Welcome !

I am happy to announce the European Robotics Week (ERW) 2016, which is due to take place from 18th-27th November. Preparations are well underway, with the forthcoming events of this year's edition key to supporting teachers in implementing national Science, Technology, Engineering and Mathematics (STEM) strategies.

Robots are able to capture our imagination like no other tool by creating a fun, interactive and independent educational process. By learning how to program the robot, how to use its sensors and define its movements, one easily learns physical, geometrical and mathematical concepts. As a result, this experience reinforces and the child tacitly learns STEM by watching and interacting with robots, as they practically perform the results of the lesson. Equally important is the self-esteem which a successful hands-on experiment delivers.

It is essential that teachers at all levels of education have the opportunity to complement successful teaching, with the interactive opportunities that robots can offer within the framework of complete education. We have been asking schools throughout Europe to take up the challenge and demonstrate robotics education at all levels since 2011. I am delighted that many skilled teachers have taken up this challenge and we have seen huge success in participation.

This handbook was written to support new potential participants to the European Robotics Week. Within it, you will find a brief introduction to the components of the ERW 2016, along with a collection of resources you can use to make the most of holding your first event. European Robotics Week is an exciting opportunity to transform teaching in our schools. I should also like to take this opportunity to thank all of you who are working hard to make the European Robotics Week a success!

Reinhard Lafrenz
Secretary General



European Robotics Week 2016

A future of robots for everyone.

Robots are the future. They occupy the imagination of youngsters, teenagers, students – essentially everybody.

Robots are cool and we all have our favourites from Sci-Fi movies. But how much more enjoyable would it be to interact with the ones that we would have built and designed ourselves?

Imagine robots crawling like insects, walking like humans, interacting with the environment in different ways, or even playing sports such as football.

European Robotics Week was born out of the initiative of the European Robotics community to bring robotics research and development closer to the public.

Its main aim is to inspire students of all educational levels to pursue careers in Science, Technology, Engineering and Mathematics and allow us to glimpse the future society and the very real impact that robotics will have in it.

At euRobotics, we believe that in the future the use of robotics in everyday life will be ubiquitous and as a result we need to involve the public, young and old, in the discussion.



European Robotics Week 2016

European Robotics Week: Events all over Europe, squeezed into a single week



Since 2011, the European Robotics Week has attracted more than 200,000 people and encouraged the public to become involved in hundreds of different robotics related activities on a yearly basis. The latest edition looks to emulate this great success and aims to continue raising awareness, whilst breaking new records for attendance, introducing ever more people to the growing prominence of robotics in Europe.

During the European Robotics Week this year, industry, research institutes and universities, will again raise public awareness of robotics, by offering a whole host of robotics related activities. Open labs, exhibitions, challenges, robots in action on public squares, school visits by robotics lectures, guided tours for pupils and much more will inspire students of all ages.

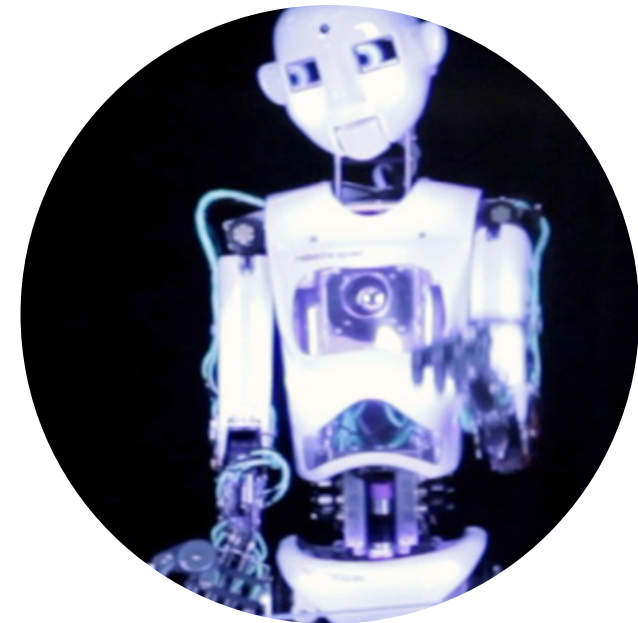
European Robotics Week 2016

Robotics spur interest in STEM subjects at school. European Robotics Week is about translating the excitement about robots into all ages to gain an insight into natural science and math, but also in developing opinion for the use of robotics in our society.

Skills in science, technology, engineering and math (STEM) are becoming an increasingly important part of basic literacy in today's knowledge society. To keep Europe as a leading economy, we need to continue developing our own researchers and by 2020 add at least one million additional researchers! Science education can no longer be viewed as an exclusive endeavor for future scientists or engineers; all citizens should engage in dialogue on science-driven societal issues since only science-conscious citizens can make informed decisions.

Together, we have to change the perception of robotics and the science behind it and show that it is not just for nerds. Tens of thousands of school children in Europe, who may have no interest in technical subjects, change their mind as a result of these essential interactions. The interaction with robots complements the overall teaching experience and helps to motivate young people of any age to learn not only the basics of STEM, but also to direct them onto an independent exploratory, self-motivated learning path.

Stimulating this key sector, especially through the youth and all grown-ups who want to join the many tours and events, has an equally important effect: to raise awareness of the type of impact that robots can have in our society. Robotics provides a solution to many of the current and future societal challenges, such as: working in dangerous fields of work, or taking care of disabled and elderly people.



European Robotics Week 2016

Gender Equality: More girls in Science!

Women and girls are currently underrepresented in STEM subjects and as its importance grows in our increasingly interconnected global society, it becomes even more imperative that educators find ways to encourage girls to participate in these fields.

According to experts, girls typically engage better with science when it is taught in context but they also relate well to collaborative, project-based and enquiry-based approaches to teaching and learning. The crucial issue is that it appears to be a question of classroom dynamics. We should be aware of these differences and move away from co-educational classroom scenarios where gender stereotyping functions disengage girls from STEM subjects.

Making science more engaging, inclusive and contextual does not mean making it easier. If anything it makes it more challenging and more fulfilling for both boys and girls. European Robotics Week is about diversity and inclusion and we believe that if girls are given the stimulus to continue learning STEM subjects, they won't be the only ones to benefit: science and the whole of society will also.



Success Stories from 2015



Germany

Over 60 events were organised in Germany with KUKA, Schunk, Open Roberta, Hands on Technology opening their doors to the public. In Dortmund the opening of the year-long robot exhibition at the DASA museum coincided with the start of the European Robotics Week and on the opening day alone almost 3.000 visitors were registered in Dortmund.



Hungary

The variety of events in Hungary is exemplary for the European Robotics Week as a whole. The Mechatronics, Optics and Engineering Informatics department of the Budapest University of Technology and Economics organised the Micromouse Contest. Its goal was to have an autonomous robot running through a designated maze to compete for intelligence and speed. Other events were organized around FPVRace, MTA SZTAKI in Budapest and Ericsson Roboskicc Challenge 2015.



Spain

Spain was once more the undisputed leader in regard to the number of organised events during the ERW20105. Almost 380 events took place all over the country sweeping kids, students and adults alike away to the world of robotics. The range of activities varied and included visits to companies like the students of IES Federico García Lorca were allowed to sneak a peek behind the scenes of the company Tecnatom.

Amsterdam Central Event 2016: Robots at Your Service

**Central event - European Robotics Week 2016 - Amsterdam,
18-22 November, Marine Base**

This year the European Robotics Week's central event (www.robotsatyourservice.com) focuses on several topics such as:

- assistive living technologies and healthy aging
- girls and women in technology
- encouragement of STEAM-based education

This is a multi-track event aiming to inspire people on the positive contribution robotics can bring to our society and geared to aspire to the younger generations on the growing importance of skills in science, technology, engineering, arts and math ([STEAM](#)).

A Multi-Track Event

Talk & Debate

Experts panel sessions will discuss the use of robotics for topics such as: robotics regulation, assistive living technologies, girls and women in technology, and the encouragement of STEAM-based education.

Experience & Explore

Workshops for young and old; here is where kids and parents learn how to build a robot with 3D printers, assemble their first robot or create their first line of code. We are proud to host this track at the [NEMO Science Museum in Amsterdam](#).

The Hack for Healthy Ageing

Enter the Hack for Healthy Ageing; 48-hour [hackathon](#) for designers, makers, coders, developers, data scientists, engineers, researchers, students, startups, caretakers, architects, entrepreneurs, or anyone else who believes their skill is valuable in tackling the healthy aging societal challenge.



**CO-CREATE THE ELDERLY
HOMES OF THE FUTURE**



Live Broadcasts

Would you like to know what's going on across Europe? Watch live broadcasts showcasing the various robotics activities from across Europe and of course from the central event in Amsterdam!

How to Register an Event?

You have the log-in details for the euRobotics website, since you participated in the previous editions of ERW

- Go to [Login for ERW Partners](#)
- Click on the [Password-lost link](#) on the right hand-side to get your new password (please provide the email which you have used for creating the ERW login in the first place)
- You will get an e-mail with your new password

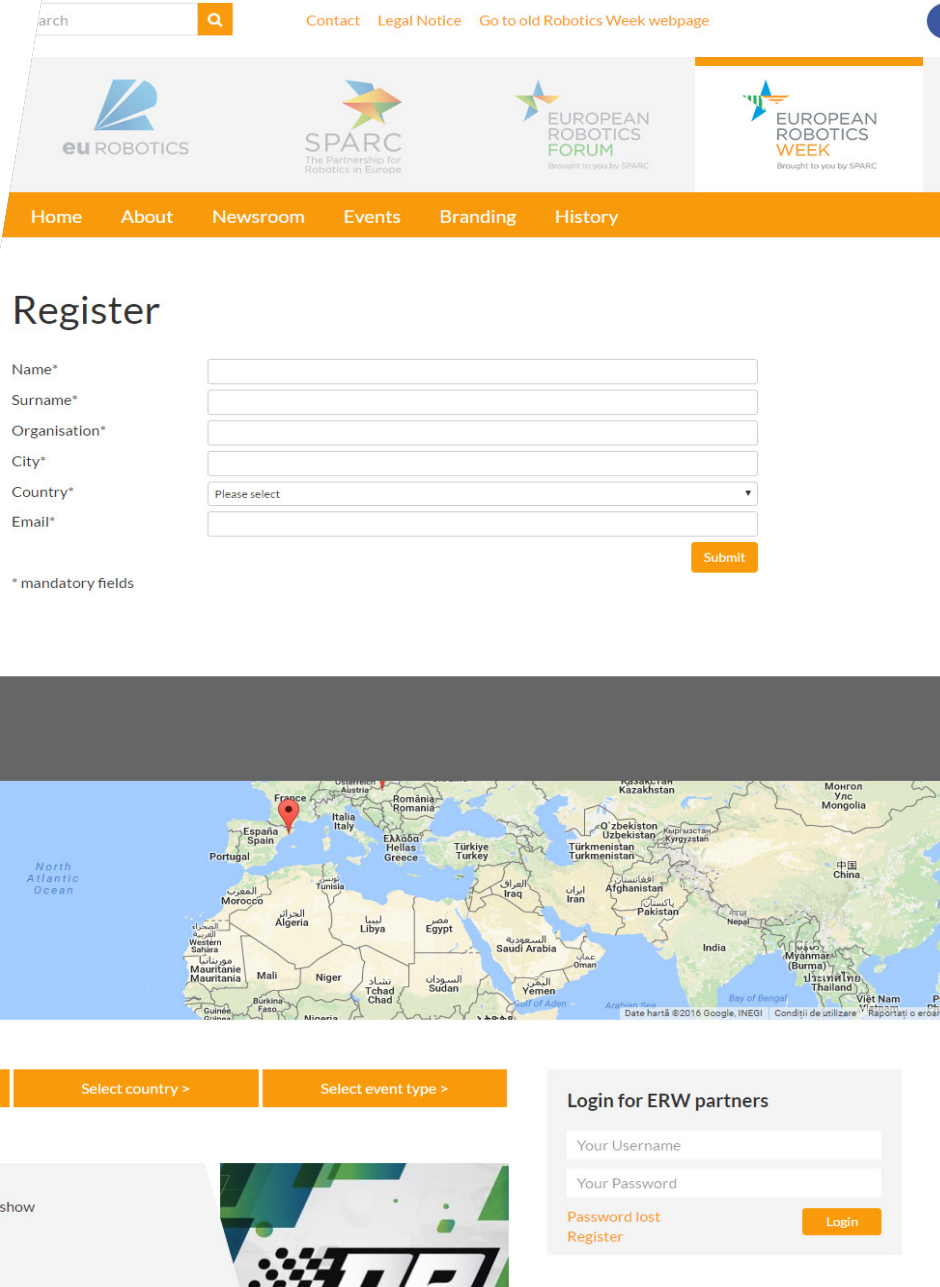
You do not have the log-in details for the euRobotics website, but you would like to upload events

- Fill in the European Robotics Week registration form – [Events 2016 – Register form](#)
- We confirm your account and you will receive your log-in information by e-mail
- Go to [Login for ERW Partners](#) and log-in with your credentials

How to upload your event

- After logging in, click on [Manage events](#) on your right-hand side
- Click on [Create new event](#)
- Fill in the **Manage Events Form**, save and click **“Submit for review”**.
- Please do not forget to press the **“Submit for review”** button, otherwise, we will not be able to publish your event
- Events you submit will not show up online immediately. This process can take up to 2 working days. They will first go through a quick check to make sure they are suitable for the European Robotics Week and only then will they be set online
- All approved events will show on the [ERW2016 events map](#)

The European Robotics Week has a new logo! Please use it with your local/ national promotion: https://eu-robotics.net/robotics_week/branding/index.html



The screenshot shows the website's navigation and registration sections. At the top, there are logos for euROBOTICS, SPARC (The Partnership for Robotics in Europe), EUROPEAN ROBOTICS FORUM, and EUROPEAN ROBOTICS WEEK. A navigation menu includes Home, About, Newsroom, Events, Branding, and History. The main content area features a 'Register' form with fields for Name*, Surname*, Organisation*, City*, Country* (a dropdown menu), and Email*. A 'Submit' button is located at the bottom right of the form. Below the form, a note indicates that fields with an asterisk are mandatory. Underneath the registration form is a world map with a red pin on France. Below the map are three orange buttons: 'Select a date >', 'Select country >', and 'Select event type >'. To the right of these buttons is a 'Login for ERW partners' section with fields for 'Your Username' and 'Your Password', a 'Password lost Register' link, and a 'Login' button. At the bottom, there is a partial view of an event listing for 'Competition and robotics show' in Hungary, with a time slot of 10:00 - 20:00 and a logo for the event.

Media Guidelines

We want to hear about your event and help you spread the word! We will be sending you press releases about the European Robotics Week 2016.

We encourage you to:

- forward these to your press office or
- send the press release (translated into your language) to journalists
- post the press releases on your website and blog
- along with a short description of your specific event to encourage local media coverage.

Keep up to date with the European Robotics Week by following us on Social Media!

Follow us on:



#ERW2016



Resources

Below you will find a comprehensive list of National Coordinators throughout Europe. If you would like to organise an event, please contact the corresponding country. If you do not see your home country listed, please contact euRobotics at secretariat@eu-robotics.net.

National Coordinators

Country	Coordinator	Organisation	Contact
Austria	Fritz Gerald	Profactor GmbH	gerald.fritz@profactor.at
	Martin Kandlhofer	TU Graz	mkandlho@ist.tugraz.at
	Gerald Steinbauer	TU Graz	steinbauer@ist.tugraz.at
Belgium	Herman Bruyninckx	KUL	herman.bruyninckx@mech.kuleuven.be
Bosnia and Herzegovina	Neven Savanovic	NENASAL	neven.savanovic@gmail.com
	Maja Hadziselimovic	MRK Systeme GmbH	hadziselimovicmaja@gmail.com
Bulgaria	Nayden Chivarov	Service Robotics Group / Bulgarian Academy of Sciences	nshivarov@code.bg
Croatia	Matko Orsag	University of Zagreb - Faculty of Electrical Engineering and Computing	Matko.Orsag@fer.hr
Cyprus	George Georgiou	NOVATEX SOLUTIONS LTD	george.georgiou@novatexsolutions.eu
Denmark	Morten Berenth Nielsen	DTI/Teknologisk Institut	morn@teknologisk.dk
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	Samuel Børgger	DTI/Teknologisk Institut	lsbr@teknologisk.dk
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		Hirvipeikot	EUroboticsweek2013@hirvipeikot.com
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Germany	Thilo Zimmermann	Fraunhofer IPA	thilo.zimmermann@ipa.fraunhofer.de
	Nadine Bender	KUKA	Nadine.Bender@kuka.com
Greece	Dimitris Alimisis	EDUMOTIVA -European Lab for Educational Technology	alimisis@otenet.gr
	Eleftheria Karagiorgou	University of the Aegean	ekaragiorgou@aegean.gr

Country	Coordinator	Organisation	Contact
Hungary	Imre Paniti	Hungarian Academy of Sciences	paniti@sztaki.hu
Ireland	Debbie Merrigan	Robotics Ireland	deborah.merrigan3@mail.dcu.ie
Israel	Zvi Shiller	Israeli Robotics Association	shiller@ariel.ac.il
Italy	Fiorella Operto	scuola di robotica	operto@scuoladirobotica.it
Malta	Keith Aquilina	Ministry of Education & Employment, Dpt. of eLearning	keith.aquilina@ilearn.edu.mt
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	Roeland van Oers	Ready for Robots	roeland@readyforrobots.com
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Serbia	Grigoris Chatzikostas	BioSense Center - University of Novi Sad	gchatzikostas@gmail.com
	Dušan Milić	Mala Škola Elektronike	skolaelektronike@gmail.com
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	Artur Coll	Catalan Ministry of Education	acoll23@xtec.cat
	Sonia Mata / Eduardo Silles	HISPAROB	secretaria@hisparob.es
Sweden	Leif Ahlman	Drones Networking	Leif.Ahlman@dronesnetworking.se
Switzerland	Linda Seward	NCCR	linda.seward@epfl.ch
Turkey	Sahin Erol, Sinan Kalkan	KOVAN Research Lab. - Dept. of Computer Engineering - Middle East Technical University	erol@ceng.metu.edu.tr
United Kingdom	Phil Williams	Knowledge Transfer network	phil.williams@ktn-uk.org
	Jurjen Söhne	Hackitarians	jurjensohne@me.com

Resources

Below you will find lists of books and movies about robots that you can use for education purposes. Please note that the listing below does not equal an endorsement of euRobotics.

New: Movies & Books

ADULTS MOVIES	CHILDREN MOVIES
<ul style="list-style-type: none"> • Marvel's The Avengers 2: Age of Ultron (2015) 	<ul style="list-style-type: none"> • Big Hero 6 - Baymax (2014)
<ul style="list-style-type: none"> • Ex Machina (2015) 	
<ul style="list-style-type: none"> • Chappie (2015) 	<ul style="list-style-type: none"> • Futurama (TV Series, 1999-2013)
<ul style="list-style-type: none"> • Real Humans (TV Series, 2012- 2014) 	
<ul style="list-style-type: none"> • Her (2013) 	<ul style="list-style-type: none"> • Wall-E (2008)
<ul style="list-style-type: none"> • Pacific Rim (2013) 	
<ul style="list-style-type: none"> • Robot & Frank (2012) 	<ul style="list-style-type: none"> • Robots (2005)
<ul style="list-style-type: none"> • Transformers (2007, 2009, 2011) 	
<ul style="list-style-type: none"> • Ghost in the Shell 2.0 (2008 - revised version) 	<ul style="list-style-type: none"> • Short Circuit (1986)
<ul style="list-style-type: none"> • I, Robot (2004 and I, Robot 2 under development) 	
<ul style="list-style-type: none"> • Artificial Intelligence: AI (2001) 	
<ul style="list-style-type: none"> • Bicentennial Man (1999) 	
<ul style="list-style-type: none"> • Ghost in the Shell (1995 - original) 	

FICTION BOOKS	NON-FICTION BOOKS
Picture Books	Children
<ul style="list-style-type: none"> • Boy + Bot. Dyckman, Ame and Yaccarino, Dan. • Robots, Robots Everywhere! Fliess, Sue. • Robot Zot! Scieszka, Jon and Shannon, David. • The Robot Book. Brown, Heather. • That's Not My Robot. Watt, Fiona. 	<ul style="list-style-type: none"> • Amazing Military Robots. Price, Sean Stewart. • Awesome Space Robots. O'Hearn, Michael. • Bridgman, Roger. • Cool Robots. Kenney, Sean. • DK Eyewitness Books: Robot. • How Robots Work. Moss, Jenny.
Easy Readers	
<ul style="list-style-type: none"> • I like Robots. Kilicci, Olga. • Me and My Robot. West, Tracey. • Rabbit & Robot. Bell, Cece. • Robot, Go Bot! Rau, Dana M. • The Junkyard Bot: Robots Rule Series 1-3, Richards, C.J. 	<ul style="list-style-type: none"> • National Geographic Readers: Robots. Stewart, Melissa. • Recycled Robots: 10 Robot Projects. Malone, Robert. • Robotics: Discover the Science and Technology of the Future. Ceceri, Kathy. • The Robot Book: Build & Control 20 Electric Gizmos, Moving Machines, and Hacked Toys (Science in Motion). Mercer, Bobby.
Middle School	Young Adults
<ul style="list-style-type: none"> • Ungifted. Korman, Gordon. 	<ul style="list-style-type: none"> • Almost Human. Gutkind, Lee. • DK Eyewitness Books: Robot. Bridgman, Roger.
Young Adults	
<ul style="list-style-type: none"> • Cinder. Meyer, Melissa. • Mila 2.0. Driza, Debra. • Nothing Can Possibly Go Wrong. Shen, Prudence and Hicks, Faith Erin. • Robocalypse. Wilson, Daniel H. 	<ul style="list-style-type: none"> • Making Simple Robots: Exploring Cutting-Edge Robotics with Everyday Stuff. Ceceri, Kathy. • National Geographic Investigates: Future Tech. Piddock, Chris. • Really? Robots. Hayes, Sarah. • Robert Builder's Bonanza. McComb, Gordon. • Robots, From Everyday to Out of this World by YES Magazine



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Contact Us To See How You Can Be Involved!

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