

# General Robot Books (Version 24)

## 1st - 5th Grade:

- Robots by Clive Gifford (Antheneum Books)  
*A Big Hit With Kids!!, but has removable cards.*
- Robots (discover science) by Clive Gifford (Kingfisher / Macmillan)
- Robot (DK Eyewitness Books) by Roger Bridgman
- Ralph Masiello's Robot Drawing Book by Ralph Masiello  
*book looks excellent; kids like.*
- Norby the Mixed-Up Robot (Norby Chronicles) by Janet Asimov, Isaac Asimov
- Me and My Robot (All Aboard Reading) by Tracey West, Cindy Revell
- My Robot (Green Light Readers Level 2) by Eve Bunting, Dagmar Fehlau
- The Robot and the Bluebird by David Lucas *Beautiful Book.*
- The Three Little Aliens and the Big Bad Robot by Margaret McNamara, Mark Fearing
- Robots! Draw Your Own Androids, Cyborgs & Fighting Bots by Jay Stephens
- Robots by Rick Allen Leider
- Doug unplugged by Dan Yaccarino

## Middle School:

- Robo World: The Story of Robot Designer Cynthia Breazeal by Jordan D. Brown  
*Excellent biography. Cynthia Breazeal created Kismet at MIT*
- Robotics (Cool Science) by Helena Domaine
- Robots - From Everyday to Out of This World by the Editors of Yes Mag  
*Another excellent book.*

## Adult:

- The New Division of Labor - How Computers are Creating the Next Job Market -  
by Frank Levy, Richard J. Murnane  
*Chapters 6 (Enabling Skills) & 9 (The Next Ten Years) And when the authors use the term "computers", think "computers and robots".*
- Moral Machines - Teaching Robots Right from Wrong -  
by Wendell Wallach, Colin Allen
- Creation: Life and How to Make It - by Steve Grand
- The Robotics Primer - by Maja J. Mataric

# Internet Articles

## High School - Adult:

Google search: Maddie Parlier robots. This will list the NPR Morning Edition stories (January, 2012) and an article in The Atlantic magazine. These stories give a good perspective on robots in factories and related job skills.

Go to economist.com and search for baxter robot. This will list an article about a new low cost factory robot, named Baxter. Also see Wikipedia - Baxter robot.

<[http://www.youtube.com/watch?v=nKdq\\_e-xRNq](http://www.youtube.com/watch?v=nKdq_e-xRNq)> WGBH's Innovation Hub: How Automation is Changing The Game (The disruptive side of robotics)

<<http://www.youtube.com/watch?v=ogBX18maUiM> > Paralyzed woman moves robot arm with her mind - by Nature Video (The wonderful side of robotics)

<<http://www.youtube.com/watch?v=76lIQtE8oDY> > One Giant Bite: Woman with Quadriplegia Feeds Herself Chocolate Using Mind-Controlled Robot Arm

Google search: Lyndon Baty. See Sports Illustrated story and others, about a boy with kidney disease, who is not able to attend class but his robot does.

<<http://www.npr.org/blogs/health/2013/11/28/229253610/the-coolest-thing-ever-how-a-robotic-arm-changed-4-lives>> Three college students give a teenager with a rare genetic disease something he'd always wished for.

## Any Age with teacher - The Hour of Code:

Remember - a robot's brain is a computer and one "teaches" a robot by writing computer software (code).

Activities related to The Hour of Code

Introductory video - <<https://www.youtube.com/watch?v=FC5FbmsH4fw>>

Angry birds programming - Help the Angry Bird get to the Evil Pig.

< <http://learn.code.org/hoc/1> >

Additional details - For 2nd grade and up - < <http://code.org/learn> >

< <http://code.org/learn#> >

An Hour of Code activity not requiring a computer.

<<https://www.youtube.com/watch?v=xaW3PAzHxCU>> and

My Robotic Friends - unplugged activity -

<<http://csedweek.org/sites/csedweek/files/CSEDrobotics.pdf>>

Additional ideas: <<http://csedweek.org/>> <[thinkersmith.org](http://thinkersmith.org)>

Commentary about teaching coding in school.

<<http://www.forbes.com/sites/nickmorrison/2013/12/27/>

[teach-kids-how-to-code-and-you-give-them-a-skill-for-life/](http://www.forbes.com/sites/nickmorrison/2013/12/27/teach-kids-how-to-code-and-you-give-them-a-skill-for-life/)>

# Robot Movies

## Any Age:

Wall-E

(Main character - LEGO building difficulty - doable but difficult)

## Jr. High & Up:

Short Circuit

(Main character - LEGO building difficulty - medium with Benedettelli's book)

## Adult:

Steven Spielberg's A.I. Artificial Intelligence

(Main character - LEGO building difficulty - maybe in 20 years)

Robot & Frank

# LEGO Mindstorms Robot Building Ideas

The LEGO MINDSTORMS EV3 Laboratory by Daniele Benedettelli

(More books with ideas for LEGO Mindstorms EV3 are expected in a few months.)

The Unofficial LEGO MINDSTORMS NXT 2.0 Inventor's Guide

by David J. Perdue, Laurens Valk

<<http://www.nxtprograms.com/>>

Creating Cool Mindstorms NXT Robots by Daniele Benedettelli

The LEGO Mindstorms NXT 2.0 Discovery Book by Laurens Valk

The Unofficial LEGO Technic Builder's Guide

by Pawet "Sariel" Kmiec

LEGO Mindstorms NXT Power Programming Robotics In C

by John C. Hansen

An Introduction to ANSI C on UNIX by Paul S. Wang

First LEGO League: The Unofficial Guide by James Floyd Kelly

The Art of LEGO MINDSTORMS NXT-G Programming by Terry Griffin

# **What kind of robot will you build?**

Write 3 or 4 sentences, or many more, about your robot, and give it to your teacher or librarian,

**or**

Discuss with a friend and together write a story about a robot.

**or**

Draw a picture of your robot, and give it to your teacher or librarian.

## **Here are some ideas to think about.**

Will your robot play soccer, or dance?

Will your robot help you, or your grandmother, or your teacher?

Will your robot be able to make a cheese omelet?

Can your robot reach the box of chocolate chip cookies on the top shelf of the kitchen cabinet?

Will your robot be able to help your neighbor who uses a wheel chair?

Of what material will your robot be built? Metal, plastic, paper, wood?

What color will your robot be? red, silver, yellow, black, blue, green or ????

Will your robot have legs and feet? Or will your robot move on wheels or treads?

How many arms and hands will your robot have?

Will your robot go skateboarding with you? If you fall and hurt your ankle, will your robot carry you to the doctor?

Will your robot go on an adventure with you, maybe to catch butterflies near the Amazon River?

Will your robot help a fireman rescue a little child from a burning building?

What will you need to learn to build your robot?

Will you build your robot alone, or will some friends help you connect the robot's motors to its legs or wheels?

Who will connect the robot's eyes to its computer (its brain)?

Who will write the software program in the robot's computer? i.e. who will be your robot's teacher?