

# COMPANY HISTORY

The LEGO Company is a family-owned and actively managed company founded in Billund, Denmark by carpenter Ole Kirk Christiansen, grandfather of current president and CEO Kjeld Kirk Christiansen. (The last names are spelled differently due to a mistake made on the birth certificate of Ole Kirk Christiansen).

Ole Kirk opened his carpentry shop in 1916. His main business was building houses and making furniture for the region's farmers. In 1932, he began making wooden toys, including buses, animal pull toys and piggy banks. He switched his business to toy making because Denmark was in the midst of a depression, and he believed that while parents would make due without new furniture, they still would provide play opportunities for their children.

The LEGO Company produced its first plastic toys, including baby rattles and toy tractors in 1947. In 1949, Ole Kirk introduced Automatic Binding Bricks and interlocking plastic blocks, the forerunners of today's LEGO bricks.

During a 1954 trip to a toy fair, Ole Kirk's son, Godtfred, met a toy buyer who complained that no company offered a comprehensive toy system. In response, he began to develop what later became known as the 10 characteristics of the LEGO System of Play:

**Unlimited Play Potential, For Girls and for Boys, Fun for Every Age, Year-round Play, Healthy and Quiet Play, Long Hours of Play, Imagination, Creativity, Development, the More LEGO Elements the Greater the Value, Extra Sets Available, and Quality in Every Detail.**

Sales improved dramatically in 1958 when the company introduced a combinable brick. Two eight-stud bricks could now be joined in 24 ways. Three bricks could be combined in 1,060 ways. Children could build tall structures of practically any shape. By the end of 1950's, LEGO bricks had become the most popular toys in Europe.

The LEGO Company introduced LEGO® DUPLO® preschool toys in 1969 and the LEGO TECHNIC® advanced building line in 1977, expanding the System of Play from toddlers to teens. The 1995 introduction of LEGO® PRIMO® (now called LEGO® BABY) expanded the LEGO System of Play to babies as young as three months. The company continues to enhance the System, introducing new sets each year.

In 1998, LEGO® MINDSTORMS™ robotics products and LEGO Media™ games launched.

Today, the LEGO assortment includes more than 2,000 elements in more than 700 sets. LEGO toys are sold in 130 countries and have been played with by over 400,000,000 children over the years.

The LEGO Company now comprises 50 companies on six continents with 9,000 employees, 1000 in the United States. The Company, however, continues to observe the motto adopted in the 1930s by Ole Kirk Christiansen, "Only the best is good enough."



LEGO MINDSTORMS™

LEGO Company

## SYSTEM OF PLAY

### **LEGO® BABY: Ages 0 - 36 months**

LEGO® BABY toys contain an array of oversized toys with smooth rounded edges. Babies' tiny hands can easily grasp the colorful pieces, including rattling elements, people figures, stacking blocks and more. Designed to stimulate the senses and encourage play, the toys help develop babies' motor skills and hand-eye coordination. New for 2000 are rings, rattles and musical toys. LEGO BABY sets are the first step in the LEGO System of Play.

### **LEGO® DUPLO®: Ages 1½ - 6 years**

LEGO® DUPLO® preschool toys provide the next step in the LEGO System of Play, with sets that match the developing skills and interests of children under age 7. Designed for a preschooler's hands, a LEGO DUPLO bricks is eight times the size of a standard LEGO brick – twice as big in every dimension. The basic building sets nourish young imaginations through free-form building, while the themed play sets stimulate creative role play.

### **LEGO® Action Wheelers: Ages 4+ years**

The new LEGO Action Wheelers line is the next step in the LEGO System of Play. It combines LEGO DUPLO blocks with realistic vehicle components. With a "special" tool, youngsters can *quickly* build their creations and dive into hours of fun, creative play.

### **LEGO®: Ages 3+ years**

The LEGO® toy line includes Classic and Play Theme sets. Classic sets combine traditional LEGO® bricks with an abundance of special pieces – designed to fuel a child's imagination through free-form building. Launching this year, Soccer theme sets add a new dimension to the LEGO line, inviting kids to build and compete against each other. The new Dino, Arctic, Knights Kingdom and Race mini-themes and the Mickey for Kids theme were developed to inspire building and role-play.

### **LEGO TECHNIC®: Ages 7+ years**

Using the gears, pulleys, beams and other special pieces in LEGO TECHNIC® sets, children who have advanced through the LEGO System of Play build realistic models featuring precision movements. Many LEGO TECHNIC sets can be motorized with the addition of a Power Pack. New for LEGO TECHNIC in 2000 are Roboriders, advanced builder *Star Wars* sets and Speed Slammers.

### **LEGO® MINDSTORMS™: Ages 9+ years**

Launched in 1998, LEGO® MINDSTORMS™ puts the power of robotics at a child's command, enabling youngsters to build and program robots that move, and act the way they want.

### **LEGO Media Software: Ages 6+ years**

LEGO Media was established to build on the natural fit between LEGO play materials and media products. Current offerings include games for the PC CD-ROM and the Nintendo® 64 and PlayStation® game consoles.



**LEGO MINDSTORMS™**

# CORPORATE GUIDELINES

We at LEGO Systems, Inc. appreciate your help in protecting our valued trademarks. The following rules will help you use our trademarks correctly.

1. The word LEGO® and our five major brand names: LEGO® BABY, LEGO® DUPLO®, LEGO®, LEGO TECHNIC® and LEGO® MINDSTORMS™ should be written in CAPITAL letters.
2. Please use our trademarks as adjectives, not as nouns. For example, refer to our products as "LEGO® toys," "LEGO® DUPLO® sets" or "LEGO® MINDSTORMS™ robots." LEGO products should not be referred to in a generic way, such as "LEGOS" or "legos," or as plural or possessive words like, "LEGO's."
3. The first time one of our registered trademarks appears in copy (especially in a headline or title), it should be accompanied by the appropriate registration symbol (either ®, if the trademark is registered in all of the countries in which it is being used, or ™, if registration is limited or pending).
4. Please do not set any of our trademarks in a special typeface or lettering so that the word takes on the appearance of a new logo or design (e.g., LEGO® toys, **NOT** *LEGO® toys* [Italics]).
5. Our trademarks that contain two or more words should never be split/separated on different lines of printed materials.
6. If there is a need to reproduce a LEGO logo, please contact the Public Relations department at (860) 763-6731 regarding the trademarks' graphic design.

Thank you for your cooperation.

LEGO, LEGO BABY, LEGO DUPLO, LEGO SCALA, LEGO TECHNIC, the LEGO TECHNIC logo, LEGO MINDSTORMS, LEGO DACTA, the DACTA logo, LEGOLAND, LEGO Mania, The LEGO Maniac and LEGO Imagination Center are trademarks of the LEGO Company.



 **MINDSTORMS™**

## FUN FACTS

- The word "LEGO" is formed from the Danish words "leg godt," which means "play well." Later it was discovered that LEGO means "I put together" in Latin.
- An estimated 400 million children and adults all over the world have played with LEGO bricks.
- More than 203 billion LEGO elements have been molded from 1949 to the present.
- The LEGO Company named a star in honor of its 65<sup>th</sup> Anniversary. The LEGO Star is in the constellation of Ursa Minor, which also includes the North Star.
- LEGO Systems, Inc. – the Americas division of the company celebrated its 25<sup>th</sup> Anniversary in the United States in 1998.
- Two eight-stud LEGO bricks (of the same color) can be combined in 24 different ways.  
Three eight-stud LEGO bricks (of the same color) can be combined in 1,060 different ways.  
Six eight-stud LEGO bricks (of the same color) can be combined in 102,981,500 different ways!
- The LEGO Company was established in 1932 and is one of the world's largest toy manufacturers.
- The LEGO Company employs 9,000 people in 30 countries, including more than 1,000 people in the United States and Canada.
- In the United States and Canada, there are approximately 1.7 million registered LEGO Maniacs (1.5 million in the U.S. and 200,000 in Canada).



# MILESTONES

**1980:** LEGO Educational Products Department™ established.

**1986:** The first-computer-controlled LEGO products are released.

**1989:** Dr. Seymour Papert of MIT's Development Laboratory of Computer Learning becomes "LEGO Professor of Learning Research."

**January to February, 1998:** LEGO MINDSTORMS and the Robotics Invention System™ are unveiled to the public at toy fairs in Nurnberg, London and New York.

**May, 1998:** With contestant editors from top national gaming publications, LEGO MINDSTORMS conducts the 1998 "Gamers Challenge" at the Electronic Entertainment Exposition (E3) in Atlanta.

**July, 1998:** RoboTour™ '98 launches from the Chicago Museum of Science and Industry, kicking-off a two-month, 30-city odyssey across America in search of learning about and seeing everything robotic.

**September, 1998:** The Robotics Invention System is launched simultaneously in the United States and the United Kingdom.

**November, 1998:** The Pilot launch of the FIRST LEGO League takes place at the Chicago Museum of Science and Industry.

**February, 1999:** The Robotics Discovery Set™ and the Droid Developer Kit™ are unveiled at the American International Toy Fair, in New York.

**May, 1999:** Top professional robot building contestants compete in the LEGO MINDSTORMS "RoboGladiators" competition at E3, in Los Angeles.

**September, 1999:** The Robotics Discovery Set, The Droid Developer Kit and The Robotics Invention System 1.5 are released in the United States. The Droid Developer Kit and The Robotics Invention System 1.5 are released in Europe and Asia, and The Robotics Discovery Set and The Robotics Invention System 1.5 are launched in the United Kingdom.

**September, 1999:** RoboTour '99™ Europe launches.

**December, 1999:** In nine states, with 4,000 of it's 10,000 9-14 year-old members competing, the FIRST LEGO League celebrates its national launch and competitions.



LEGO® MINDSTORMS™

## LEGO & MIT

### LEGO® MINDSTORMS™, LEGO DACTA®, AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

To develop cutting-edge products that encourage children to learn as they play, the LEGO Company has cultivated partnerships with some of the top researchers in learning and technology, including a 15-year partnership with the MIT Media Lab.

While it isn't possible to see into the future, we can prepare our children for tomorrow by helping them develop their ability to analyze and solve problems. We can provide opportunities for children to construct and be creative, to work together and collaborate. We can create experiences that enable children to approach new subjects with confidence. By nurturing their natural love of learning, by helping children "learn how to learn," we can prepare them to meet any challenge.

Curiosity. Excitement. Concentration. Pride. Joy. We understand that effective learning is driven by these emotions. We also understand that children learn best when they construct something that they find personally meaningful – be it a robot, a poem, a sandcastle, or a computer program. Our products are designed on the belief that children can't be given knowledge; they must actively build their own theories and combine new information with their existing views.

The LEGO Company, through its LEGO Dacta education division, began working with MIT in 1984 to link the logo computer programming language with the LEGO play materials. The collaboration has produced LEGO TC logo, Control Lab, The Intelligent House, and the technology behind LEGO MINDSTORMS products.

The LEGO MINDSTORMS concept is a natural extension of the LEGO Company's expertise in developing creative tools with which children can express themselves. Learning is based on construction rather than instruction. Children develop problem-solving strategies that can be applied throughout life. Since 1980, LEGO Dacta has created products that invite children to explore all levels of technology, including: Simple Machines, Pneumatics, and Robotics.



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# FIRST LEGO LEAGUE™

The FIRST LEGO League™ (FLL) is a joint endeavor between the non-profit FIRST (For Inspiration and Recognition of Science and Technology) Foundation and LEGO® MINDSTORMS™.

FLL's mission is to conduct friendly, high-tech sporting events that challenge its young participants (9-14 year olds), to design, program, and build fully autonomous robots using the LEGO MINDSTORMS Robotics Invention System. Teams of children, and an adult coach, compete to create a robot capable of implementing unique solutions to complete an annual Challenge.

After a pilot launch in 1998, the 1999 competitions kicked off the launch of FLL's first official year with a series of Tournaments in nine states during the first two weekends of December. 1999's Challenge was "FIRST CONTACT," which required teams to build and program a working robotic arm similar to the one used by NASA astronauts constructing and outfitting the International Space Station. At each state Tournament, teams have the chance to compete for awards in areas where they have excelled, such as: programming, mechanical design, strategy, problem solving, sportsmanship and teamwork.

Among those offering support for FLL is Astronaut Dr. Daniel T. Barry, who served as a judge during 1998 inaugural event in Chicago. "I see this [FLL] as a vehicle for changing education trends and the way science is viewed by children in this country," commented Barry. "It's great to see kids finding their own solutions to tough problems."

To learn more about FLL and its programs, you can visit their web site at [www.legomindstorms.com/fll](http://www.legomindstorms.com/fll).



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legomindstorms.com

## COMMUNITY BUILDING & SHARING

LEGO® MINDSTORMS™ provides the Web's most inventive users an Internet community equal in content to its users' imaginations. At [www.legomindstorms.com](http://www.legomindstorms.com), users can create personal home pages, download free LEGO MINDSTORMS Software, play free leading edge video adventures, or upload programs and pictures of their own LEGO MINDSTORMS invention's programs. It is a place on the Web where LEGO MINDSTORMS beginners and advanced users, kids and adults can communicate, share, learn and teach, in a way never before seen.



**LEGO MINDSTORMS**

## EXAMPLES & HIGHLIGHTS

### Missions

The center for brainstorming new inventions and challenges, [www.legomindstorms.com](http://www.legomindstorms.com)'s "Missions" section offers both real and virtual building challenges. Here users can learn how to build inventions such as an electric eye alarm sensor to protect their bedroom. Or users can take on the most vibrant virtual building adventures available on the Web and experience missions like Storm Runner. In this Mission, LEGO® MINDSTORMS™ builders have to design and program a virtual Robotics Invention System™ rover that can hunt, gather, and protect some 200 colonists stranded on a dark planet far from home.

### Hall of Fame

With a thriving and inventive community like [legomindstorms.com](http://legomindstorms.com)'s, monthly hall of fame contests have both novice and expert sections of play. For users who wonder how Anthony Fudd, the famous LEGO MINDSTORMS builder, built his amazing copy machine using the Robotics Invention System, to those who want to see and compete with monthly competition winners like Stair Climber MK1, the Soda Can Crane or the LEGO Pinball machine, [legomindstorms.com](http://legomindstorms.com)'s "Hall of Fame" section is the place.

### Tips and Tricks

Learn all kinds of secrets from new and veteran pioneers in [legomindstorms.com](http://legomindstorms.com)'s "Tips and Tricks" section. Whether users are looking for clues on how to better visualize the building of their inventions, or are just looking for hints, tips and tricks on how to get the most out of their inventions, the Tips and Tricks section utilizes both cutting edge modeling technologies and the wisdom of the best LEGO MINDSTORMS minds available anywhere.

### Products

The "Products" section of the [legomindstorms.com](http://legomindstorms.com) Web site shows users where all the LEGO MINDSTORMS' products are available, in one convenient place. As the center for all of the product lines, there is no more wondering if there's a remote control for the Robotics Invention System 2.0, or what the Extreme Creatures™ Expansion Set looks like and contains.

### FIRST LEGO League™ (FLL)

It is in this section that users can find the Online home for the FLL, a joint endeavor from the non-profit FIRST (For Inspiration and Recognition of Science and Technology) Foundation and LEGO MINDSTORMS. FLL's mission is to conduct friendly, high-tech sporting events that challenge its young participants (9-14 year olds), to design, program, and build fully autonomous robots using the LEGO MINDSTORMS Robotics Invention System.

### Tech Support

With frequently asked questions answered, and contact information available, the Tech Support section addresses the full LEGO MINDSTORMS line of products and gets inventors back to building.



## ROBOTICS INVENTION SYSTEM™ 2.0

The evolution of the LEGO Company's most advanced product continues with the Robotics Invention System™ 2.0. New for 2000, this set introduces the next generation in robotic programming. This groundbreaking product makes programming robots even more simple and intuitive for new users, while at the same time empowering advanced users to explore a whole new range of possibilities.

The Robotics Invention System 2.0 enables users ages 12 and up to design and program real robots that do what they want. Users can create almost anything: including a key card protected security vault, a robot that draws its own art, and a light sensitive dispenser that sorts their favorite candy by its color. Updated features allow users to invent robots that gather a richer array of sensory information, learn from their environment, and prioritize their actions.

The heart of the Robotics Invention System 2.0 is the RCX, the revolutionary LEGO microcomputer that can be programmed from a PC. The RCX uses light, touch and other sensors to take input from its environment, process data, and signal output motors to turn on and off. After building their robots using the RCX and LEGO pieces, users create a program of behaviors for their invention using RCX Code, a simple, powerful, and visual programming language. They then download their program to the RCX microcomputer using a USB Infrared Transmitter.

The Robotics Invention System 2.0 includes: over 700 LEGO pieces, RCX microcomputer, USB Infrared Transmitter; both touch and light sensors, motors, gears, Constructopedia building guide, and the new RCX Code programming environment and challenges. All LEGO MINDSTORMS products also work with LEGO and LEGO TECHNIC® elements. The set, available for the 2000 holiday season, will have a suggested retail price of approximately \$199 (U.S.).



- The RCX acts as a programmable brain for your robot inventions.



- Use the RCX and LEGO pieces to create thousands of unique robots

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## DARK SIDE DEVELOPER KIT™

LEGO® MINDSTORMS™ takes building to the next step with the *Star Wars*® Dark Side Developer Kit™. From a destroyer droid that charges forward to an All Terrain Armored Transport (AT-AT) that strides on four legs, kids can bring these and hundreds of their own *Star Wars* inspired inventions to life.

Designed for users ages nine and up, the set features three distinct levels of building difficulty: Jedi Apprentice, Jedi Knight, and Jedi Master. Kids can start with simple walking mechanisms that take less than 30 minutes to build. From there, they can move on to more ambitious droids that move and walk with increasing strength and agility. A modular building system lets kids build using subassemblies, making it easy to create and customize hundreds of working droids.

The LEGO MINDSTORMS Dark Side Developer Kit is powered by the Micro Scout, the smallest LEGO microcomputer. The Micro Scout has a built-in light sensor, a built-in motor, and seven behaviors from which to choose.

The LEGO MINDSTORMS Dark Side Developer Kit features over 500 LEGO pieces, the Micro Scout, and three Constructopedia's with building instructions and challenges. The set, available for the 2000 holiday season, will have a suggested retail price of approximately \$99.99 (U.S.) \$149.99 (CN).

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- Create hundreds of *Star Wars*® inspired robots.



**LEGO MINDSTORMS™**

## VISION COMMAND SYSTEM™

**A LEGO® MINDSTORMS™ Accessory Kit for Use with the Robotics Invention System™ (1.0, 1.5 or 2.0)**

The LEGO MINDSTORMS Vision Command System™ lets users build and program robotic inventions that respond to what they see. Users aged 12 and up can program their robot to follow them around a room, watch for and record intruders, and even dance and play musical notes with a slight wave of a hand.

At the core of the Vision Command System is the new LEGO PC video camera. The camera is designed for easy construction with standard LEGO building elements, so users can quickly build their own custom stand or snap the camera into place as the eyes of their robot. An extra long cord with a USB connection lets the LEGO camera go mobile and patrol a perimeter around the PC.

When combined with the Robotics Invention System, users can create robots that see. Using the LEGO MINDSTORMS visual programming system, users can program their robots to respond to motion, light and color. With a few simple commands, users can make their robot search for, pin-point and track an object like a yellow ball, or possibly a brightly colored family pet. They can let their robot explore on its own and watch the action live on their PC.

The Vision Command System can also be used alone as a PC video camera, with standard video and image capturing capabilities.

The Vision Command System includes:  
a LEGO PC video camera with USB connection,  
the Vision Command System CD-ROM software,  
and LEGO construction elements and building instructions. The set, available for the 2000 holiday season, will have a suggested retail price of approximately \$99.99 (U.S.).

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## EXPANSION SETS

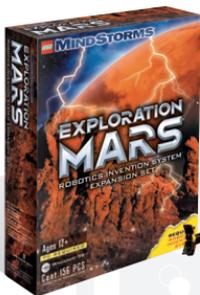
For Use with the Robotics Invention System™ (1.0, 1.5 or 2.0)

### EXPLORATION MARS™

New!  
For Spring  
2000

Users aged 12 and up can simulate exciting Mars missions with EXPLORATION MARS™, the latest expansion set for the Robotics Invention System™. Users can build all terrain Mars rovers, robotic retrieval arms, and advanced landers that serve as the platform for their scientific exploration. The set features the Exploration Mars CD-ROM with interactive missions, enhanced 3D graphics, on-screen control panel for navigating rovers, and a wealth of facts on the red planet.

EXPLORATION MARS requires the Robotics Invention System. It includes a CD-ROM, a Constructopedia with building instructions, and over 150 LEGO pieces. The set, available for Spring 2000, will have a suggested retail price of approximately \$49.



### ROBOSPORTS™

If kids want to build a new class of robots that can throw, dunk, kick, and score, then they have what it takes to jump into the ROBOSPORTS™ arena. Within the ROBOSPORTS expansion set lies the power and flexibility robots need to grab balls, shoot hoops, slap pucks, maneuver around obstacles, and even dodge opponents. For use with the Robotics Invention System™, ROBOSPORTS is a 90 plus piece set that includes a ROBOSPORTS CD-Rom, balls, pucks, ROBOSPORTS Constructopedia, and playing field sheet.



### EXTREME CREATURES™

With the EXTREME CREATURES™ expansion set, kids can bring out the beast in their Robotic Invention System™ robots. Create creatures that stalk prey, attack intruders, or flee from danger. Whether playing the aggressor or protector, creatures can be built to bite, sting, pinch, or pounce. Utilizing the EXTREME CREATURES CD-ROM, specialized EXTREME CREATURES Constructopedia, and light conducting fiber optic strands, kids can make pincers, jaws, and claws from this 140 piece expansion set to set their creature loose and let nature take its course.



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## ULTIMATE ACCESSORY SET

A LEGO® MINDSTORMS™ Accessory Set for Use with the Robotics Invention System™ (1.0, 1.5 or 2.0)

The LEGO® MINDSTORMS™ Ultimate Accessory Set enables kids 9 and up to do even more with their robots. Kids can control their inventions remotely from across the room and also expand their robots' capabilities. With this new accessory set, users not only get their hands on the LEGO Infrared Remote Control, they also get an extra touch sensor, a rotation sensor for precision control, a LEGO lamp with concave mirror and extra LEGO building elements. A Constructopedia activity book provides detailed descriptions of how to utilize each new sensor for maximum robotic performance. The Ultimate Accessory Set is just what LEGO MINDSTORMS enthusiasts have been waiting for.



The set, available for Spring 2000, will have a suggested retail price of approximately \$49 (U.S.).



- Make your invention more responsive to its environment with the addition of a touch sensor.



- Control the motion and behaviors of your invention by measuring changes in axle rotation.



- Control the amount of light that illuminates your robot's surroundings with the new LEGO® Lamp.

LEGO MINDSTORMS™