

Modular magic in the classroom

Bring engineering to life with Infento











How do you truly inspire your students with STEM education?

The world is changing quicker than ever before, and schools are trying their best to keep up. Everyone in the education space agrees that we need to enhance what kids learn and how they learn. By doing so it will allow students to develop all the necessary skills to thrive in the future.

A lot of buzz words have popped up over the last decade that promise to contribute towards the education solution. 21st century skills, STEM, inquiry-based learning, design thinking, etc. But do they live up to their promise?

We think they most certainly can! But it all boils down to the materials and tools that are being used. Most often students get a one-off experience that fails to inspire. They make something that is out of their realm of experience or that they can't really use in real life settings. Given these problems we would like to introduce our company, Infento. With our life-size construction kits, STEM education finally becomes truly inspiring for students of all ages and gender!

What student wouldn't want to build their own life-size electric vehicle? Make their own eSports gaming chair or racing scooter. And what if you could shoot a water rocket 100 feet up in the air from your self-made launch pad? Welcome to the world of Infento. Hop on our ride to the future and discover all the possibilities.

Education Team Infento



Your ride to the future

FLOWMOTION X Included in the Talent & Pro Kit

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Do you want to be the most innovative school in your region?

With Infento, students build life-size electric vehicles and anything their imagination can think of!



Isn't this great? We built this electric Ride together!

"

Modular magic in the classroom

Infento has developed modular parts for your students to create life-size vehicles and science builds. You can build a skateboard, recumbent bicycle, water rocket, fitness machine, electric motorbike or electric kart. Anything is possible with Infento!

While students build together, they will acquire new skills that they can benefit from throughout their entire life. Students will learn about mechanics, realizing a design plan, assembling, tools, braking systems, electric mobility and much more.

As soon as they finish their custom design (electric) Ride, it's time to drive it! Steer like Max Verstappen, let the young pit crew change tires and continue the race. Who's clocking the fastest lap? Infento connects into the child's world, bringing engineering to life.

Why Infento?



Powerful STEM lessons



Learn about technology through play



High quality materials that will last many years

Teaches students the importance of 21st Century Skills

AFTER-**SCHOOL** PROGRAM Infento will make your after-school program a big hit, guaranteed. Lay out an indoor or outdoor course and let students race their life-size (electric) vehicles. Inform students that they can build these vehicles themselves. You will definitely see an increase in new students wanting to join the after-school program to enjoy their time with Infento.

FOR **EVERY** LEVEL

PROJECT-BASED

knowledge is required. Infento can therefore be used perfectly class by class. Students can start with easy and fun constructions that scooter or push cart. Everything is possible!

More time to work on a larger project over several sessions? Have a group of students build their own electric go-kart, motorbike or recumbent bike! Or start with the Infento Design Challenges and build a crane, exercise bike, game chair, stretcher, wheelbarrow or launch pad for a water rocket. With the 100% modular parts, you really can

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Effective tool for getting every child involved in STEM

Complete teaching solution for any teacher



Teaches students important 21st century skills

Any student at any age can get started with Infento. No basic

Inquiry-based learning and design thinking

STEM education encourages students to be curious and experiment as lifelong learners. Inquiry-based learning and design thinking are excellent frameworks for STEM since it promotes critical thinking and innovation.

Inquiry is an approach to learning where students are provided with opportunities to explore the natural or material world, ask questions, look for solutions, make observations and test out ideas in search for a new understandina.

Design thinking and inquiry-based learning overlap each other in many ways. The big difference is that your end goal with design thinking is to come up with the best possible product for a specific end user while inquiry-based learning is about moving students from a position of curiosity and wondering to a position of enacted understanding and further questioning by letting them generate questions, ideas and observations.

These two processes can help students systematically learn and apply these techniques to later solve real world problems in a creative and innovative way. In both their future jobs and lives, Infento is ideal to kickstart this type of learning.





Inquiry-based learning cycle that is also used in Infento's Design Challenges.

"Tell me, and I'll forget. Show it to me, and I'll remember it. Let me experience it, and I will understand it."

- Confucius

Educational innovation with Infento

Infento helps your school take a big step towards innovative education. Our educational Kits and teaching programs are in line with the methods of inquiry-based learning and design thinking and stimulates the development of engineering skills. Infento challenges and appeals to the creativity and thinking skills of students.

The unlimited possibilities that Infento offers thanks to our modular parts, enables kids to build virtually anything they can think of. This is inquiry-based learning at its best. On the Infento website you and your students can access exciting Science Builds, the coolest Rides and amazing Design Challenges.

Infento Design Challenges

Infento has developed unique Design Challenges that unleash all creativity in children. The fact that students can design and build something that they can then actually test and use afterwards, guarantees plenty of enthusiasm amongst your student population.

What will your design look like?! Ready, set, go!

- Prosthetic leg
- 2 Vehicle with sidecar
- 3 Electric recumbent bike
- 4 Horse for the princess
- 5 Popemobile 2.0
- 6 Merry-go-round
- 7 Fitness machines
- 8 Mobile desk and chair
- 9 Electric Formula 1 car
- 10 Hospital stretcher and many more Challenges!







Done? Test your design. Have a go with the entire class!

21st century skills

Our society continues to rapidly change in the 21st century. There are massive technological, economical and societal developments occurring that will influence the future of work and living environment of children.

To prepare students for their future, it is critical that 21st century skills take up a key role in education at your school. Teaching needs to stimulate a curious, inquisitive and problem solving attitude amongst children. Infento will help you accomplish this goal.

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COMMUNICATION Creating your own life-siz science build is not a sma

C

Creating your own life-size vehicle or science build is not a small challenge and requires good communication on all levels.

F

CREATIVE THINKING

Enhance your creativity by using 100% modular parts to create your own vehicle or any other construction you can think of.

PR Infe the

PROBLEM SOLVING

Infento's modular parts offer students the opportunity to reach several different solutions to a problem.



CRITICAL THINKING

Infento encourages children to first come up with a design, followed by a systematic approach on how to realize your design. ()

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COLLABORATION

Assembling your own vehicle means students need to (learn to) cooperate. Complementing each other and dividing tasks is essential to reach this goal.







INFORMATION LITERACY



Students can independently use the step-by-step materials and manuals to build the technical construction of their choice.



SELF REGULATION



Independently building a large technical construction or vehicle is an in-depth task and requires plenty of effort and perseverance.



Sustainability and quality

100% RECYCLABLE

The aluminum profiles are 100% recyclable and this makes them a very sustainable material.

INDESTRUCTIBLE ALUMINIUM

The profiles are made of anodized aluminum. This material is light, indestructible and does not corrode.

GLASS FIBER REINFORCED PLASTIC

All plastic parts are reinforced with glass fiber, making them extra strong.

RUBBER DRIVE BELT We don't use an oily metal chain, but a belt that is clean, safe and will last for years.

BEST POSSIBLE BRAKES

The disc brakes function well in any circumstance, wet or dry. Safety comes first.

DURABLE PARTS

Year after year our modular parts maintain their durability even after intensive usage.



First Skilskit Learn the basics of building and technology

The First Skills Kit is specifically designed to teach students important basic technological skills. Suitable for use in classes from the age of 8+. Accessible to all types of students. Girls, boys, skilled or two left hands. The ready-to-use learning method makes the Kit suitable for any teacher, no matter how technically savvy they are. The students start directly on their own due to the unique learning material.

With the First Skills Kit students will learn about:

- The basic techniques how to build all the different types of designs
- Measuring assembling a part at a specific point along the profile.
- **Reading comprehension** carrying out the instructions.
- Basic knowledge about materials and assembly techniques.
- Working together two students working together.
- Names and measurements of professional materials.
- Angles, wheels, axles and much more!

CONTENTS

- 16x First Skills storage boxes
- 16x Teaching materials
- 32x Workbooks
- 16x Content plates
- 1x Teacher's manual (online)
- All necessary durable parts
- Associated tools

SUITABLE FOR

Age 8+, max. 32 students

YOU CAN BUILD 16x small technical constructions

DURATION PER ASSIGNMENT

20-30 minutes per Basic Skill



This Kit consists of 16 boxes with different tasks for a team of two students. Each team will build all 16 boxes over the course of the year. Each task has a separate box with all the materials, a textbook with instructions and a content plate so everything can be prepared again for the next team. Each student receives a separate workbook with tasks. The lessons are taught according to the sections: Build, Review, Know, Discover, Ask and Quiz. Have you mastered the First Skills? Then proceed to the next level of the continuous learning path: the Discovery Kit.



16x FIRST SKILLS



T-Blocks & Names

90° constructions





Connecting Blocks







Castors & Wheels

7 inch wheel





Seat or standing board

Swivel wheel

16x TEACHING MATERIALS 📳 32x







Multi-Angle



Axles & Wheels



Stabilization system



T-connector







L-connection blocks



Handles



Shaft clamp



Coupler





Discove Build engineering constructions with themes

from science, technology and play

With the Discovery Kit, students build inspiring engineering constructions. The tasks deal with engineering and science topics in an inspiring way. For example, build a real electric motor, a windmill or a vehicle and discover the associated scientific and technical principles through play. Each task is connected to the student's real world experiences, automatically making them enthusiastic about STEM topics.

With the Discovery Kit they learn:

- **Building** real engineering constructions ٠ such as an electric motor, a vehicle, a windmill, a sundial and much more!
- Insights into important technical and ٠ scientific basics through experiments.
- Working with technical materials that are ٠ also used in practice.
- Investigative and design learning. .
- Collaboration two students working on a ٠ discovery build.
- 21st century skills such as problem solving • and creative thinking.

CONTENTS

- 14x Discovery Kit storage boxes
- 14x Teaching materials
- 28x Workbooks
- 14x Content plates
- 1x Teacher's manual (online)
- All necessary durable parts
- Associated tools

SUITABLE FOR Age 8+, max. 28 students

YOU CAN BUILD

14x inspiring engineering constructions

DURATION PER ASSIGNMENT

40-60 minutes per Discovery Build



The Discovery Kit consists of 14 boxes with complete tasks for a team of two students. Each team will build all 14 boxes during a selfdetermined time. Each task has a separate box with all the materials, a textbook with instructions and a content plate so everything can be prepared again for the next team. Each student receives a separate workbook with tasks and can start independently. This means that little guidance is necessary. The aim is that every teacher can work with this. The lessons are taught according to five fixed sections: Build, Review, Know, Discover, Ask and Quiz.

14x DISCOVERY BUILDS Q







Abs Roller





Jeu de car

Jump Rope







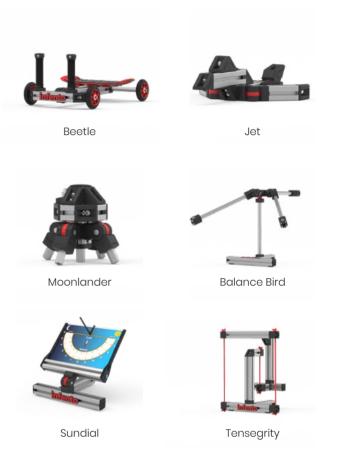


Spinning top

Dino













28x WORKBOOKS 🖳

1 workbook per student

ent Build your own life-size vehicles together

The Talent Kit is widely applicable and accessible for any type of student. No basic knowledge is required to build constructions, neither for the students, nor for the teachers. The students can directly get to work using the clear instruction manuals and user friendly teaching materials.

A maximum of eight children can be occupied at the same time with one Talent Kit. You can use this Kit as an individual project or have two groups of two or four kids create different inventions for example our Funboard, Flowmotion or Cruiser. As soon as your cool new skateboard or scooter is finished, the time has come to organize a race between the groups! Prefer to work with the entire class? With three or four Talent Kits, the whole class can build at the same time!

CONTENTS

- 714 Modular parts
- 21x Teaching materials
- 5x Sturdy storage boxes
- 5x Content plates
- 1x Teacher's manual
- All necessary durable parts
- Associated tools

SUITABLE FOR

Age 10+, max. 8 students

YOU CAN BUILD

- 7x Life-size vehicles
- 4x Science Builds
- 10x Design Challenges
- Endless own creations

DURATION PER ASSIGNMENT

€1.195

2-3 hours, with option to split it up

The Kit consists of 714 modular parts that are very robust and durable. This makes intensive use possible over a period of several years. Thanks to the high number of parts, students can get creative with the special Design Challenges. The Talent Kit comes with five sturdy storage boxes that have a clear layout. The creative and technical talent of your students will emerge in no time with this Kit!

7x RIDES



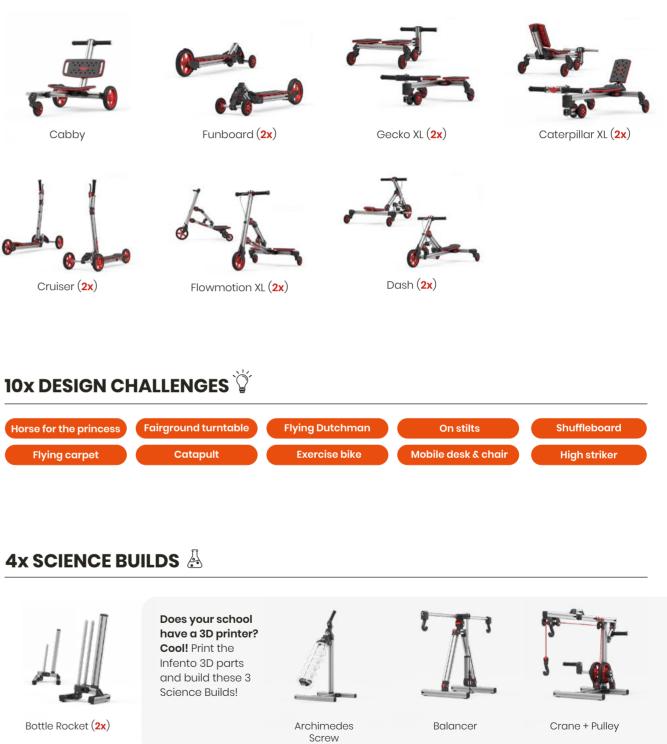








Flowmotion XL (2x)









210 Build your own life-size electric

vehicles together!

The Pro Kit is, just like the Talent Kit, widely applicable in middle school and high school. All types of students and teachers can start working with it, without any prior knowledge. The big attraction of the Pro Kit? The amount of Design Challenges, a huge amount of parts for your own creations and... the ePulse electric motor! Is the new Henry Ford or Elon Musk at your school? Infento can spark the engineering fire in any child. Who doesn't like building their own electric vehicle to race at the schoolyard afterwards!?

With one Pro Kit, a maximum of eight students can be put to work. A group of four can build an electric vehicle or a Science Build together. Two groups of four can build a smaller vehicle at the same time, such as a skateboard or scooter. Of course it's also possible to work individually on an Infento project or with a smaller group. When using multiple Pro Kits you can have the entire class work with Infento, or divide the Kits over several grades.

CONTENTS

- 1,110 Modular parts
- 36x Teaching materials
- ePulse[®] electric motor
- 9x Sturdy storage boxes
- 9x Content plates
- 3D SketchUp designs
- All necessary durable parts
- Associated tools

SUITABLE FOR

Age 10+, max. 8 students

YOU CAN BUILD

- 12x Life-size Rides (5 ePulse® Rides)
- 4x Science Builds
- 20x Design Challenges
- Endless own creations

DURATION PER ASSIGNMENT

2-8 hours, with option to split it up

The Pro Kit consists of 1,110 modular parts that are conveniently stored in nine high quality, mobile storage boxes. Students can let their imagination go wild constructing the Design Challenges, thanks to the enormous amount of parts. Build an electric recumbent cycle, a special gaming chair, a futuristic pedal go-kart or a fitness machine. Anything is possible! The Pro Kit ensures educators that their students will become familiar with critical 21st century skills, all while building inventions full of passion and enthusiasm!

12x RIDES





Quad 4

















FIRST SKILLS KIT

Learn the basics of building and technology.



AGE RECOMMENDATION 8+

TEACHING METHOD Classwide & project-based

MAX. STUDENTS 32

DEPLOYABLE IN MANY WAYS One student per assignment Team of two per assignment

YOU CAN BUILD

16x First Skills **Discovery Builds** Life-size Talent Kit Rides Electric Pro Kit Rides + Science Builds **Design Challenges** Endless own creations!

DURATION PER ASSIGNMENT

20-30 minutes

Continuous learning path

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DISCOVERY KIT

Build engineering constructions with themes from science, technology and play.



AGE RECOMMENDATION 8+

TEACHING METHOD Classwide & project-based

MAX. STUDENTS 28

DEPLOYABLE IN MANY WAYS One student per assignment Team of two per assignment

YOU CAN BUILD

First Skills 14x Discovery Builds Life-size Talent Kit Rides Electric Pro Kit Rides + Science Builds **Design Challenges** Endless own creations!

DURATION PER ASSIGNMENT 40-60 minutes

Continuous learning path

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TALENT KIT

Build your own life-size vehicles together.



AGE RECOMMENDATION 10+

TEACHING METHOD Project-based

MAX. STUDENTS 8

DEPLOYABLE IN MANY WAYS One student per assignment Team of two per assignment Team of four per assignment

YOU CAN BUILD

First Skills **Discovery Builds** 7x Life-size Talent Kit Rides Electric Pro Kit Rides

- 4x Science Builds
- **10x** Design Challenges
- Endless own creations!

DURATION PER ASSIGNMENT

2-3 hours, with option to split it up

Continuous learning path

PRO KIT

Build your own life-size electric vehicles together!



AGE RECOMMENDATION 10+

TEACHING METHOD

Project-based

MAX. STUDENTS

8

DEPLOYABLE IN MANY WAYS

One student per assignment Team of two per assignment Team of four per assignment

YOU CAN BUILD

First Skills Discovery Builds 7x Life-size Talent Kit Rides 5x Electric Pro Kit Rides 4 4x Science Builds 20x Design Challenges 00 Endless own creations!

DURATION PER ASSIGNMENT 2-8 hours, with option to split it up

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STREETWAVE

CABBY

A classic skateboard, with an Infento twist. Both at the front and back the Stabilizr System is mounted. Place the axles and wheels and test your board. Can you master this cool skateboard?

CRUISER

The most unique scooter in the world! This 3-wheeled scooter uses lean-to-steer: where you use your bodyweight to head in the right direction. Gain speed, put your feet on the scooter and lean right or left to magically make turns.

DASH

How does drifting work with the Dash? Keep one hand at the steer and one hand on the drift activator in the back. Let a classmate push you and to generate some speed. Now turn both the handlebar and the drift activator at the same time to start drifting. Change roles afterwards.



This is a true duo ride. First build together, then ride together! The one sitting down can steer using their feet while the partner is pushing and running. This requires maximum trust in each

other to have fun. The Cabby is a real team



Guaranteed succes in your classroom with these cool vehicles!

Experience a unique new way of moving forward with the Flowmotion. Sway your hips and your own bodyweight and the swivel wheels at the back will set you in motion immediately. Discover how you are able to





GECKO XL

This Ride will amaze children. Put your knees on the seat boards and move your hands quickly from side to side. The Gecko will move! A hand powered Ride that moves without a chain. How is that possible? Build it, try it, and observe how it works.



CATERPILLAR XL

First build together, then discover how the Caterpillar XL works. Sit back, relax and enjoy! Grab the rear profile with your hands and move the steer left and right with your feet. You'll zigzag forward in no time!

Electric engines will power the future. Cars, bicycles, motorcycles, boats and even planes. Imagine how exciting it is to let kids build their own electric vehicle! Infento enables this.

Electric 7 Pulse[®] Rides

Students can first use the manuals to build an electric quad, go-kart or a motorcycle. If they get the hang of it, they are ready for the next step; making their own electrified creations! An electric recumbent bicycle, scooter, wheelchair, or racing car. The options are endless!

The powerful ePulse® motor has a 4 Ah lithium-ion battery that can be placed in various positions. Modular is the magic word!

The battery is ready for 60 minutes of continuous run time. After only two hours of charging it will be ready for action again!

ePulse[®] motor and ePulse[®] battery





BUSTER

This is the SUV amongst go-karts. Assemble the front and back axle. Set the seat at the right position and off you go! Test your result at the schoolyard with classmates. Who will set the fastest lap time?



OUAD



Build a Quad with a group of two or four students. Lots of kids have probably already experienced driving a quad once. Now they can make one themselves! They will learn to connect the electric drivetrain and mount the disc brakes. Surely the children will be proud when driving their quad around the schoolyard! This is the perfect way to get them enthusiastic about engineering.





GO-KART

Go-karting is a loved activity amongst kids. Now it's time they build a go-kart with their own hands! The ePulse System motor will provide 60 minutes of fun when your students are driving around. The disc brake will enable a safe stop at all times. Even backing up is not a problem, just press the green button. Are you the new go-kart pro?

HOT ROD

Meet our tribute to an iconic vehicle: the Hot Rod. This lowrider beauty will definitely turn some heads as the students whizz by. With 20nm of torque available, they'll zoom away at 7 mph all while the students discover the power of torque!



MINIBIKE

Electric fun on two wheels. A real minibike for the biker minded students! This is one of the favorite models of the Infento fans. It's a great experience to build an electric bike together, and afterwards learn to drive it.

wards

Infento's concept has won many design and education awards including the most recognized and reputed awards of the world.



8-TRIKE

German Design Award

"This comprehensive kit allows children to create their own functional and roadworthy vehicles, with virtually no limits to the imagination. The technical look and feel appeals both to the young and the old, plus it encourages real social contact in an era when games and communication are increasingly taking place on a digital level."



Red Dot Award

"The Kits are remarkable: it makes children do something useful together which is fun and develops essential skills. The modular parts offer countless possibilities and have an important function: they spark children's creativity and give them technical skills."



NOT Innovation Award

sustainability.

We see that by doing one learns even more and even has a success experience, which leads to an increase in selfconfidence. In a time of digitization, this practical Infento teaching program is worth its weight in gold."



"Infento contributes to playful and meaningful learning. It enables students to use their hands, gain valuable technical insights, be creative and reflect on

Which vehicle will your students build!?



Buster

Bender

Jayden (11) likes action and chose

In the media

Infento's innovative concept was embraced by the international media. The unique idea was praised for its versatility and educational value.

BBC

In the world of convertible, growing locomotion, the most drool worthy must be Infant. From trike to bike and beyond: the transforming-transport trend reaches its zenith with the multi-talented Infento.

"

G Forbes

Infento is inspiring the next generation of makers and innovators to make the world a better place.

"

((Treehugger

The emphasis here is on a modular design that promotes ease of use and assembly, and do-it-yourself goodness that is sure to inspire curious youngsters to tinker and make more of their own stuff.

BUSINESS De Telegraaf INSIDER WIRED **Forbes** NRC deVolkskrant NOS GEACJUNKIE Stuff Auesomer Etreehugger Outside WANT INSIDEH(?)K designboom GIGADGETS BBC CHASSEURS DE COUL AUTOEVOLUTION GEARHUNGRY heise online DER SPIEGEL Make: TRENDHUNTER **NEW ATLAS** BIKERUMOR

About Infento

The Dutch company Infento was founded in 2010 by Sander Letema and Spencer Rotting. The idea for life-size modular vehicles arose when Spencer worked as a volunteer at youth organizations. He and the kids built cool soapboxes to have races with.

Spencer was amazed by the resourcefulness the kids showed and dreamed how cool it would be if they had multifunctional parts available. Like LEGO and Meccano but then life-size! His brother in law Sander was equally intrigued by the idea and started designing. After a long period of drawing, testing and developing, the first modular construction kit for schools was the result!



INTERNATIONAL BREAKTHROUGH

The big international breakthrough came in 2015. Infento launched a consumer Kit on Kickstarter (world's largest crowdfunding platform) that year. This became one of the biggest educational campaigns worldwide and Infento was covered by media like the BBC, Wired, Forbes and Der Spiegel. The Infento video went viral on social media and has been watched by 25 million people. In 2018 Infento ran another Kickstarter campaign that was so successful, that it was awarded the most heavily funded STEM project the crowdfunding platform had all year.

Infento is a quickly growing company. Our team now consists of 25 creative Infentors. We design and produce all the construction Kits in our own factory in Amsterdam. We are very proud our Kits are sold worldwide in over 50 countries. Our mission: **"Raise a generation of children that has the skills to build a better future."**

Wat teachers are saying





"User friendly and accessible. Students can work autonomously and they are enthusiastic because it links perfectly into their world!"

- J. Weckhuysen

"When I was first introduced to the Infento Kits, I was impressed by the possibilities that they offered. These kits have been perfect for the hands-on applications that I needed. Students must follow the instructions of their projects on PDF's that we have downloaded on our laptops. The most impressive part about what this does for us is the interactive aspect of building full size models instead of small ones. They are very proud of their builds. Parts work well together, instructions are visual. I have bought several kits, and will continue to recommend them to my STEM colleagues."

- Daley Toney

"Order process flawless, manuals clear and detailed, everything works as it should! The parts are strong and sturdy."

- J. Greiner







Thousands of children all over the world enjoy building super cool Infento creations!

You can find examples and inspiration on our Facebook and Instagram.

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Do you want Infento at your school?

Contact our education team via +31 (0) 20 261 64 50 or send us an e-mail to: edu@infento.com

We look forward to hearing from you.

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