



infento EDUCATION

Investigative learning and designing





Why is design technology important?

We use design technology on a daily basis and in everything we do. From your shoe-laces to your computer, from the refrigerator to the operating table. Our society, our daily lives, is made possible by all kinds of creative and technical inventions. So design technology plays an important part in our lives and is vital in education. The beauty of design technology is that it addresses your creativity and allows it to arrive at a certain target. This way of learning exceeds the practical aspects of design technology. Finding solutions by deploying your creativity and perseverance are both crucial qualities of major importance in today's rapidly changing society.

Design technology is a fantastic way to encourage creative thinking in children. But the material you work with and the things you create have to be appealing. It has to match the experiences of the pupils. They have to be real materials and techniques that are used in everyday life and are available for everyone – both pupils and teachers. In collaboration with schools, Infento has developed an education package based on these values. Infento ensures that pupils can learn and design in an investigative way using design technology.

The education package combines creativity, technical insight and making something “real” and fun while learning in a unique way.

On the following pages we focus on:

- the Infento concept
- possibilities
- composition of the package



“after school pupils stay to build their pedal go-kart, they don't want to stop!”



THE INFENTO CONCEPT

Invent, Build, Experience!

Suppose you have a great idea. Ideas are often a particular vision of a certain experience. For example, you like gaming but you have a small screen and the sound is but tinny. Wouldn't it be great if you could have a big screen and surround sound? No, even better; if you steer the racing car in the game around a bend, you also feel your chair moving...

Everyone has experience of these kinds of ideas. But how do you convert them into something real?

This is where Infento comes in; how can you help someone realise his/her idea? Often, construction materials are miniaturised, or you need expensive tools and materials.

How can you offer possibilities without someone first having to learn a lot of other things?

With this in mind, Infento has developed a modular construction material that is strong, easy to use and incredibly versatile:

- ✓ aluminium profiles in a range of lengths provides endless possibilities
- ✓ all Infento connectors fit both the profile and each other, making them super modular
- ✓ wheels, steering wheel, brakes, driving belts and steering arms make great vehicles possible

A photograph of two young boys in a workshop setting. The boy on the left, wearing a blue hoodie, is focused on assembling a component of a model. The boy on the right, wearing a dark blue shirt, is assisting him. They are using long, silver aluminium profiles connected by black plastic connectors. In the foreground, there is a clear plastic storage bin filled with various small parts and a printed manual with diagrams. The background shows a whiteboard and other workshop equipment.

“Infento is ideal for learning and designing in an investigative way”



- ✓ a series of block bearings and axles ensure movement and makes rotation easily within reach.
- ✓ Infento is made of professional materials that are both really strong and really good!
- ✓ in 99% of cases, you only need an Allen key to build. (1% require a spanner)
- ✓ all parts are clean (no oil or grease), you can get started in the classroom straight away.

Infento is great for a beginner, if you can hold an Allen key, you can build with Infento. If you are a more advanced developer, Infento materials will give you wings to create great structures.

Other great elements:

- ✓ when you've finished your project, you can take it apart and get started on your next big idea!
- ✓ all parts were developed in such a way that they can always be reused for other structures
- ✓ year after year, Infento materials will keep being transformed into new shapes and structures.

The combination of all these elements literally offers a world of possibilities.

Although Infento can be applied in many ways (even professionally), Infento focuses on children, schools and (grand)parents.

We want to pass on the fun to be had realising your ideas, building a cool recumbent bicycle or experiencing an exciting adventure to the children of today. Because literally working together constructively gives great satisfaction, brings people together and is very educational.





infento



THE BRIDGE INFENTO BUILDS...

The accessibility of Infento makes it a great material to get pupils in touch with design technology.

Educational Infento is very valuable because what you can see being created is something like a pedal go-kart, but the materials and techniques consist of professional industry materials.

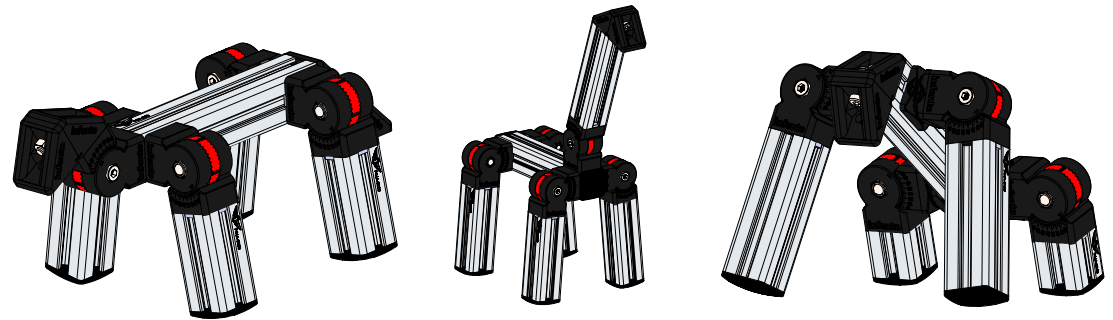
This means Infento bridges the gap between the child and the “real” world of industry – which appeals to them a lot. What you learn now, you can use later.

INFENTO IS FOR EVERYONE

- ✓ Infento is for all ages.
- ✓ Infento is great for all skill levels.
- ✓ from beginner to advanced.
- ✓ for young and old.
- ✓ for boys and girls
- ✓ for all teachers, whether handy with tools or unfamiliar with design technology



The education package can be used on several levels.



LEVEL 1

Children between the age of 3 and 6 can be introduced to design technology for the first time by building structures that are based on the shapes of animals. Only 2 types of bolts, 1 type of nut and 2 connectors are used.

POSSIBILITIES WITH THE EDUCATION PACKAGE

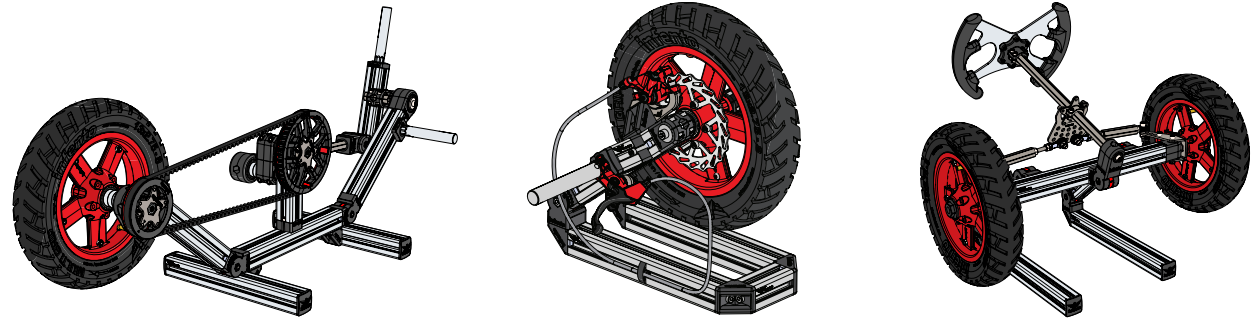


LEVEL 2

Slightly older pupils can take the next step in which a limited number of connectors and bolts are used. This involves a greater challenge than level 1 because at this level they can come up with, and build, more difficult objects themselves.



POSSIBILITIES WITH THE EDUCATION PACKAGE



LEVEL 3

The next level helps pupils build so-called “key objective structures”. These are specifically aimed at driving, braking and steering. These structures are also well suited for working in small groups of 4 to 6 pupils.

Level 3 allows pupils to work with all Infento parts and lays a solid foundation for building the large driving models at a later date. The manual is also a stepping stone for pupils who design and build something themselves. The basis for these structures is the “universal assembly handbook”. This handbook shows how each Infento part has to be assembled and is therefore also a perfect guide for individual’s own designs.

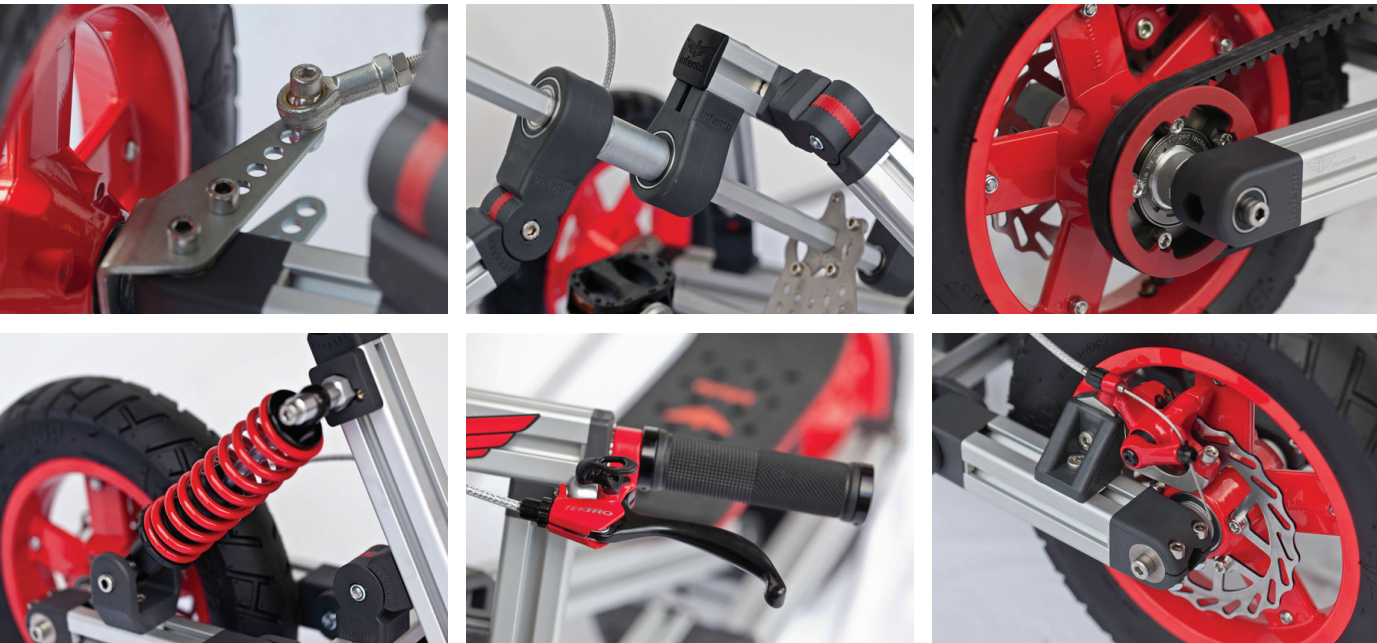


Four large models show what is possible when teaching yourself design technology.

These models are intended to motivate pupils with appealing result and at the same time teach various facets of design technology:

- ✓ getting familiar with a large range of assembly materials
- ✓ learning how to assemble materials (fixing parts effectively, e.g. with accompanying torque wrench)
- ✓ size designations and degrees
- ✓ real bearings and locking axles
- ✓ the working, and assembly, of disc brakes
- ✓ drive and acceleration / deceleration
- ✓ working and assembling steering systems
- ✓ working with multiple building instructions
- ✓ getting familiar with multiple professional materials

LEVEL 4



Learning with Infento means that pupils cooperate a great deal. There are cross-curricular elements such as calculating, size designations and reading comprehension. Many insights learned can also be applied within social contexts, such as adjusting / repairing your own bicycle or assembling IKEA furniture.

Maybe even too much: we can say from experience that girls are extremely enthusiastic about working with with Infento.



LEVEL 5

POSSIBILITIES WITH THE EDUCATION PACKAGE

The highest level; that's you.

As we've already mentioned in the Infento concept, the material offers you every possibility to convert your own idea into your own creation.

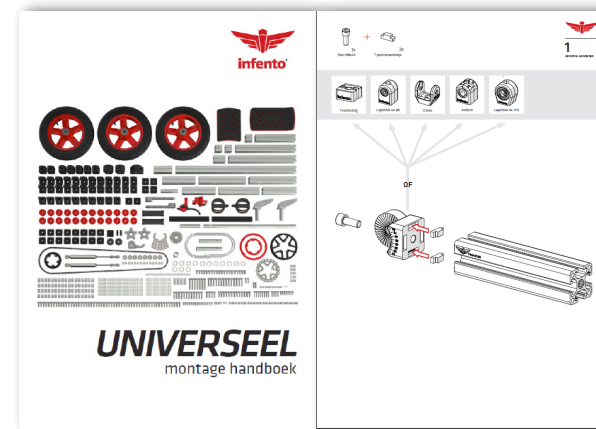
For pupils who have to conduct a design assignment, Infento materials are exceptionally useful for testing theoretical concepts in practice:

- ✓ the pupil can get started right away (no equipment or special classroom required)
- ✓ the ratios good (do you fit on it)?
- ✓ is the structure strong enough and safe?

Two aspects of Infento can help you to you to learn in the field of design:

- ✓ the modular components offer you many possibilities for turning your idea into reality.
- ✓ because everything is assembled with bolts, any mistakes or amendments can be easily adjusted to perfect your design. You simply loosen a part, move it and the result is there.

Because you can switch quickly between an idea and a real structure, you can learn a lot from your mistakes and you get feedback very quickly. As a result, you can quickly develop construction insights.



When you start building your own design, you are supported by the “universal assembly handbook”.

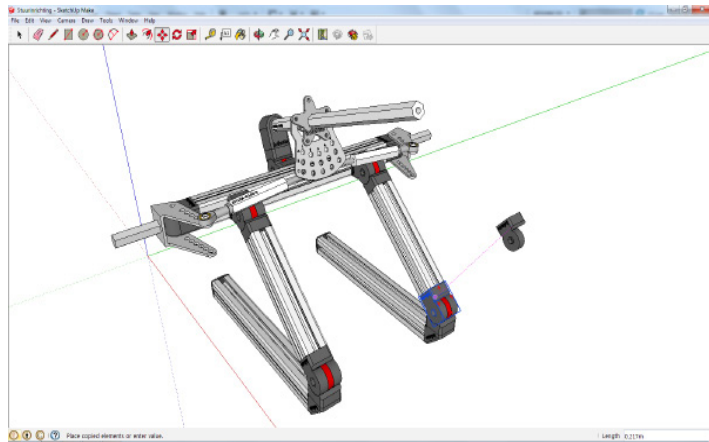
In this handbook you can find instructions on how to assemble each part and material correctly.

DESIGNS WITH 3D DRAWING APPLICATION...



To support the design process, all parts of Infento are available in the Sketchup on-line library (free 3D drawing application).

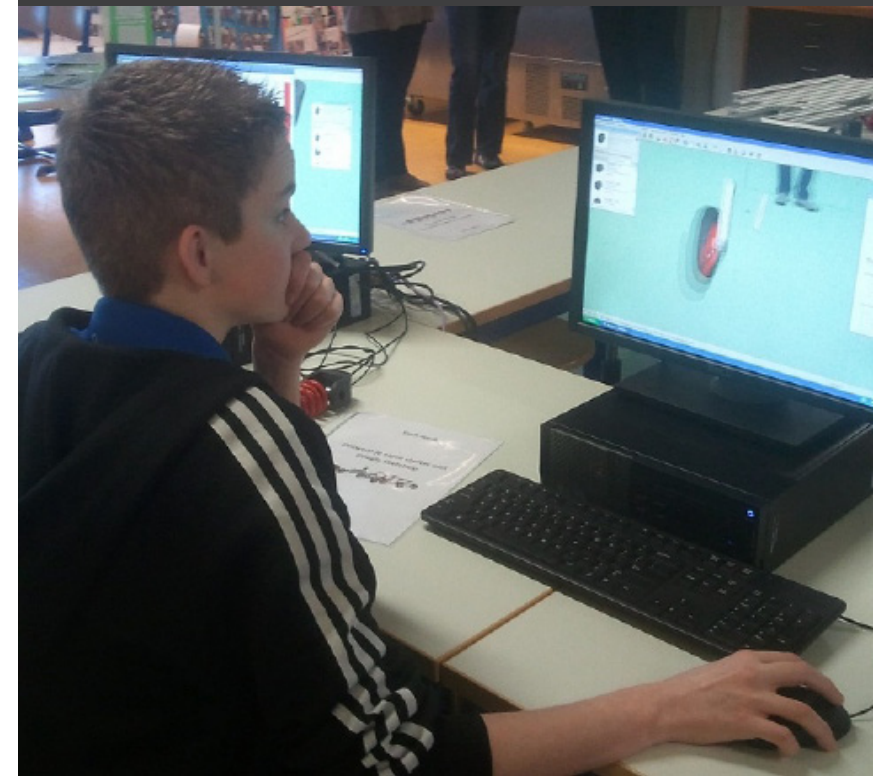
As a result, pupils can also create their initial design digitally.



Sketchup is easy to master because there are a lot of clear manuals and example videos available. In this way, the combination of digital design and real building comes very close to the professional world.

...AND PRINTING

Great teaching moments are also possible when pupils design add-on parts themselves and print them with a 3D printer. With this you can, for example, complete the “Services and Products VMBO” curriculum. Designing and constructing based on Infento’ professional parts, supplemented with personal designs of additional parts, takes pupils through all aspects of engineering with a result that stands on its own and works!



COMPOSITION OF THE EDUCATION PACKAGE

The education package is supplied in stackable boxes on an easy to move base.

The boxes are strong and fitted with layout sheets that help during building and clearing up.



The boxes are categorised as follows:

Biggest box (80x60x13cm): all profiles and axles

Upper box (40x60x43cm): wheels, seats, shock absorbers, steering parts and all tools

Lower box 2x (40x60x9cm): all connectors, handles, toothed belts, braking parts

Assortimentsbox: all assembly materials (bolts, nuts, spacers, profile nuts)

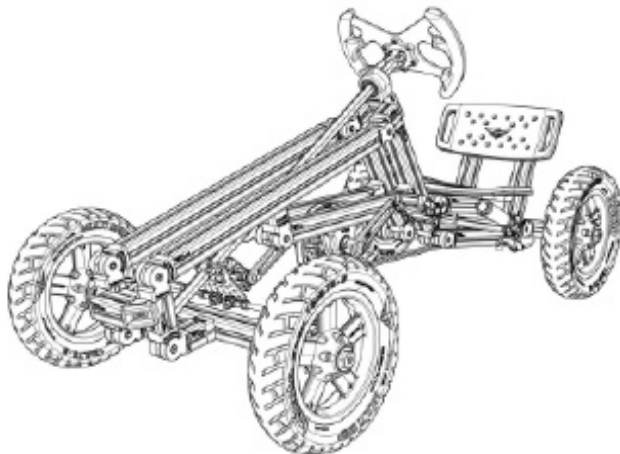
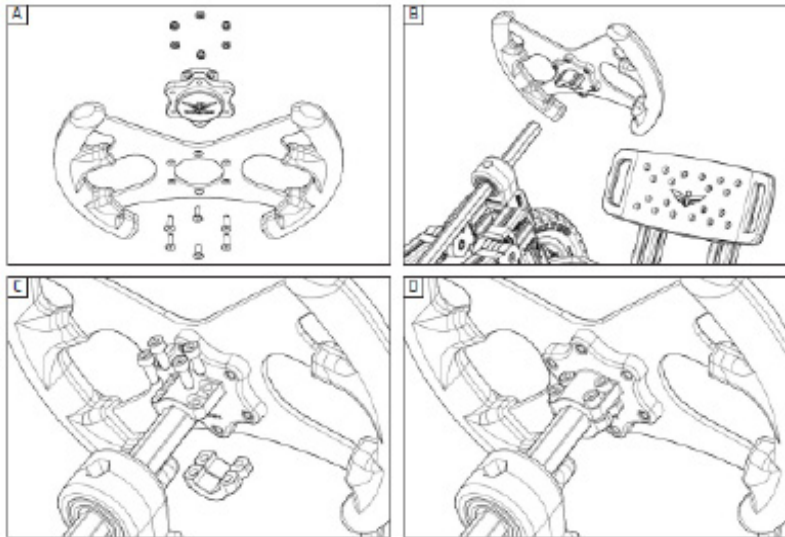
The educational material is also available in both printed and digital formats.

Key objectives 4, 33, 42, 44, 45, 57 are covered in the education package.





The building instructions take you through how to build these cool structures step by step.


105
105 PARTS LIST


DEPLOYABILITY OF INFENTO

The Infento education package can be used for:

Primary education

Practice education

VMBO

MBO

INFENTO IS VALUABLE FOR YOUR SCHOOL

- ✓ Learning and designing in an investigative way.
- ✓ with only an Allen key as a tool, Infento unlocks the world of design technology.
- ✓ all parts are clean; just push some tables together and get started.
- ✓ Sdeployable school-wide: from children between the age of 3 and 6 to intellectually gifted children.
- ✓ Appeals to a wide range of pupils with its creativity, insight, cooperation and activities.
- ✓ User materials and no user consumed material = no annual additional costs.
- ✓ Input from schools is used to continuously develop new educational material.
- ✓ the materials and techniques are real and therefore form a real, practical engineering foundation for children.
- ✓ Fun, inspired, educational and more engaging.
- ✓ genuine implementation of design technology in education that can inspire pupils to choose a technical career (the reason why design technology in the classroom is so important).

PRICE AND INFORMATION

The price of the Infento education package is **1695.00 Euros (incl. VAT)**

If you still have questions, you can send an email to: info@infentorides.com

Our team can also present Infento at your school and answer your specific questions then.

After purchasing, there is also the option of teacher training so you can get off to a flying start.

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