INTRODUCING

e² YOUNG ENGINEERS

WELCOME TO THE EDUCATION REVOLUTION

In a world where technology is constantly developing and improving, parents understand the increasing importance of giving their children the best education possible in the fields of Science, Technology, Engineering and Mathematics (STEM). At e² Young Engineers, we believe in supporting and helping parents realize that goal, by preparing their children for an evolving environment – one where inventing, creating and initiating are the names of the game.

To this end, e² Young Engineers is here with the education revolution. We strengthen the development of thousands of children around the world through our unique edutainment (education + entertainment) curricula. Our STEM courses start out teaching children fundamental scientific theories, and progress to advanced engineering and problem-solving topics as they move through our curricula. By allowing children to immediately apply the theories they learn at the start of our classes by building K’nex® and motorized LEGO® bricks models that demonstrate the theory in action, we ensure that they receive a comprehensive understanding of the topic at hand – at the same time as having fun! Using this method, we equip children with the tools and skills necessary to contribute to STEM fields, and to engage in the complex challenges posed by the ever-changing demands of today’s workplaces.

Joining the education revolution today means success in the future – for you and the scientists of tomorrow!
SOFT SKILLS/PERSONAL DEVELOPMENT

STEM subjects aren’t the only areas in which children receive a huge head-start when they become Young Engineers. They’re also developing a whole host of other capabilities—from interpersonal skills to hand-eye coordination. Every child who participates in one of our courses is strengthening their:

- Motor skills
- Hand-eye coordination
- Spatial awareness
- Communication skills
- Problem-solving abilities
- Teamwork abilities
- Creative thinking
- Confidence

The combination of these ‘soft skills’ with the technical proficiency gained from our course content is what gives e² Young Engineers graduates the advantage they need to stand out in the future.

SHAPING THE ENGINEERS OF THE FUTURE

At e² Young Engineers our focus is on developing the next generations of engineers and scientists. Our original and unparalleled approach to assisting the STEM experts of tomorrow is through the provision of engaging educational solutions at the early stages of cognitive development.
CLASS CONTENT

Every lesson in our edutainment programs begins with a clear and concise theoretical explanation of a scientific subject. Following the introduction, the children are given their K’nex® or LEGO® kits, and move on to the practical stage of the lesson. This section involves building a model that demonstrates the theory they have just been taught. The positive experience of having fun while directly applying the knowledge they have just acquired ensures a firm grasp of the subject matter.

Children also have the opportunity to add ‘enhancements’ to their models, encouraging them to take a creative approach to science and problem-solving. They also have time to play with their models, allowing them to experiment and learn naturally how the theory of the day works.

Each model that children build throughout the e² Young Engineers courses is of something they will recognize from their day-to-day life, thereby helping them to understand the relevance and significance of what they are learning and how it shapes the world around them.

At the end of each class, children disassemble their model and put the pieces back in the correct place in the kit. This not only adds another layer of development to their motor and hand-eye coordination skills, it also instils the good practice of looking after possessions and putting them back where they belong – a gift for every parent!
OUR COURSES

The class structure above is present throughout each of our curricula, which are run as weekly sessions over a 10-month period (keep an eye out later in the report for what you can do with the 2 months that are left over in the summer!):

**Big Builders**
- Aimed at children aged 4 – 6
- 45-minute classes
- Uses special kit developed in partnership with K’nex®
- Children build individually
- Teaches children about fundamental scientific principles and the natural world around them

**LEGO® Challenge**
- Aimed at children aged 6 – 9
- 75-minute classes
- Uses our unique e² Young Engineers LEGO® kit, exclusively developed by our own Research & Development team
- Children build individually, or in pairs if assistance is needed
- Teaches children the basics of engineering, with the subject matter advancing as the course progresses
- Models are motorized, giving children the opportunity to see engineering and physics principles in action

**GaliLEGO® Technic**
- Aimed at children aged 9 – 12
- 75-minute classes
- Continues with the exclusive LEGO® kit, using additional parts to build larger and more complex models
- Children build individually or in pairs, depending on the theory/model of the day
- Teaches children more sophisticated engineering processes, and goes further into investigating the mechanics involved in the model-building
- Models are motorized, giving children the opportunity to see engineering and physics principles in action

**Robotics and Software Engineering**
- Aimed at children aged 12 – 15
- 90-minute classes
- Uses LEGO’s NXT programming software, which interfaces with our models
- Students write their own software code
- Work is done in teams of three – one programming and two building (rotates throughout the year)
- Models are motorized, giving children the opportunity to see engineering and physics principles in action
- Teaches children Object Oriented Programming (OOP) and software programming, in addition to further exploring engineering (the level of the course is equivalent to a first/second year university degree in engineering)
EXTRA!

In addition to our standard yearly curricula, we have several extra fun and exciting activities to offer – some of which will bring the grown-ups into the picture! Options include:

- **Summer camps**: Our summer camps revolve around the world of science and engineering. In addition to building our unique models, campers will also take field trips to examine real-life versions of the models we build – visiting, for example, candy factories, car and transportation museums, amusement parks and more.

- **LEGO® Birthday Parties**: Different themed parties present the perfect opportunity to give children a birthday celebration they’ll still be talking about when the next birthday comes round!

- **Company parties**: Team-building activities that are fun and productive are becoming increasingly popular in the workplace. e² Young Engineers is joining this trend by offering company-oriented workshops.

- **Special workshops**: We reach out to wider audiences by offering special one-off workshops, such as family days, activities for the golden age community, and sessions for those with special needs.
METHODOLOGY
Our classes put children at the heart of the educational experience. As opposed to standard school lessons where the teacher is dominant 85% of the time, in our classrooms, the instructor delivers the theory at the beginning and then hands over to the students.

Our emphasis on making learning fun creates all the positive associations needed to ensure that children absorb and retain the theories we teach them, and help shape their attitude towards their education as a whole.

The use of entertaining stories to explain theories helps keep children engaged and enables them to situate what they are learning within the reality of day-to-day life, thereby emphasizing the relevance of what they are being taught.

CUTTING-EDGE TECHNOLOGY
In keeping with our drive for innovation, our Research and Development team has crafted the unique e² Young Engineers 3D app. This is a powerful learning tool for all our curricula, offering children the opportunity to develop their understanding of digital technology while learning all the material that is presented in our courses. By being able to view each model in 3D with the app as they build, children benefit from a combined process of hands-on constructing and getting to grips with using touchscreens, which is an increasingly in-demand capability in today’s world. This is a pioneering offering from e² Young Engineers – we are the only company that has developed our own app for our curricula. Plus, of course, as with all our other products, using the application is fun as well as educational!

The only company to have developed its own 3D APP for building with LEGO® bricks
PRODUCTS
- K’nex® exclusive e² Young Engineers kit
- e² Young Engineers exclusive LEGO® kit (Challenge + GaliLEGO)
- e² Young Engineers Robotics and Software Engineering kit
- Tablets with exclusive e² Young Engineers 3D app

Use exclusively-designed LEGO®, K’nex® and Engino® kits
CURRENT STATUS

Over the past few decades, as the demand for scientists and engineers has grown in response to our increasingly technology-driven world, the ‘talent pool’ for these fields has shrunk considerably. Additionally, the standard of teaching in STEM subjects is on the decline: in a recent World Economic Forum survey, the US ranked 49th in the world for the quality of its science and math education. Furthermore, standard teaching methods hold children back by focusing on conformity and standardization, rather than focusing on finding each child’s unique way of learning and encouraging creativity. This denies children to engage in the kind of complex, interdisciplinary thinking that is crucial to meet the demands of an increasingly challenging workplace.

GROWTH/POTENTIAL

The market for children’s development and educational programs has increased drastically during the last decade. Growth is now predicted at an average annual rate of 3.1%; what’s more, this expansion has occurred during a time of recession, highlighting that this market sector is relatively insulated from economic downturns. Additionally, the boom in the market for children’s learning apps and educational video games demonstrates an ever-growing trend towards combining learning and entertainment, and adding digital technology into the mix.
NEED FOR e² YOUNG ENGINEERS

Children who are just beginning their journey into elementary education cannot know what career opportunities and challenges will exist 20 years down the line. As such, we believe that the best way to prepare children for the future is to adopt a broad approach. We provide our students with a variety of personal experiences that develop their critical thinking skills, a sense of curiosity and the ability to problem-solve and develop creative solutions. These skills, which complement the comprehensive science and engineering foundation we instill, are crucial for reversing the decrease in engineering talent we are currently witnessing. Additionally, the opportunity to experiment and build in a creative environment nurtures their passion for learning and addresses the lack of diversity in teaching methods, which is a recognized problem with standard school curricula throughout the world.

PARENTS OF e² YOUNG ENGINEERS STUDENTS

Here’s what parents of e² Young Engineers students have to say:

“Our son just completed LEGO® Challenge. He LOVED it! My son reads below his level and has dyslexia – he dreams of being an engineer and your class made him feel confident and that his dream is achievable!”

Kathleen and Ron Anderson – USA

“My child loves the program and is continuing! It is inspiring him to build more involved creations with his thousands of LEGOs at home. Keep up the awesome work!

Julie Torrie – USA

“Jackson absolutely loves this class. Thank you so much for doing this in our area!”

Jennifer Stafford – USA

“Great course! Develops lots of important skills – organization, following instructions, concentration, and all while having fun.”

Nataly Mogilevsky - Israel
STATISTICAL DATA

Don’t just take parents’ and our word for it – we also have a statistical survey proving our courses and methods work! Some of the key findings were:

- Children attending our classes are generally “successful” or “outstanding” students in school
- 81% of children attending our classes learn how to organize their day more efficiently
- 1/3 of the children who participate in e² Young Engineers programs have seen a direct improvement in their grades due to their attendance
- 93% of children are satisfied or very satisfied with the classes
- The classes help students develop creative thinking
- Children develop a sense of personal empowerment and self-confidence through attending our classes

You can read the full summary here.
BENEFITS OF AN e² YOUNG ENGINEERS FRANCHISE FOR THE FRANCHISEE

There are huge benefits to be gained from becoming an e² Young Engineers franchisee (aside from working with LEGO® and K’nex®):

- Fast ROI
- Working with a statistically-proven product
- Being part of an award-winning company
- Using innovative approaches that are being promoted by highly-regarded academic institutions
- Modest investment
- Home-based business
- Flexible working hours
- Comprehensive training program for new franchisees
- Managerial, financial planning and logistical support available
- Fast-growing industry
- Numerous options to diversify revenue stream
- Working with the only children’s education company to have its own LEGO® Research and Development team and its own app.

JOIN THE EDUCATION REVOLUTION

Our CEO won the 2011 Youth Business International award

programs are being promoted by a Carnegie Mellon University subsidiary
WHO CAN BE AN $e^2$ YOUNG ENGINEERS FRANCHISEE?

We are looking for partners with the passion, motivation and commitment to show our future generations how to have fun while discovering STEM topics. Understanding the importance of these topics, and how they are taught, is a key starting point for any $e^2$ Young Engineers franchisee. We require that our franchisees demonstrate a high level of responsibility and can contribute creatively to our common goal of introducing these programs to children across the globe. We are also seeking franchisees who are willing and able to follow and maintain our proven high standards, and who are committed to excellence. Basic management skills and outstanding interpersonal and communication skills are also fundamental assets for a successful $e^2$ Young Engineers franchisee.
TESTIMONIALS

Switzerland

“My name is Avigail Khan, and I am running Young Engineers Schweiz Ltd. We started our operations in August 2012, a team of two people, with a lot of help from the Israeli headquarters. After almost 2 years of hard work we have more than 60 courses a week and we are working with the ministry of education in Zurich and public and private schools as well as with community centers. We have done holiday camps, special events for large international companies and workshops in schools. The sky is the limit!”

Nigeria

“My name is Ojo Francis, I am the Operations Director of Young Engineers Edutainment Nigeria Limited. YE Nigeria started in January 2013, with a clear goal of developing African children by engaging them with innovative hands-on methods of teaching and learning Science, Technology, Engineering, Art and Math in a run way. This approach was a perfect solution towards solving Nigeria’s socio-educational and economic problems... Within 18 months of operations and with support from YE Israel, we have achieved huge successes through partnerships with schools, after-school programs and government projects, summer camps and birthday parties, amongst other upcoming programs. The most interesting part of the business is its unlimited opportunities... For the participants, it’s a brand new world of excitement and invention.”
## START-UP COSTS

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<th>When Due</th>
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<td>Bank Transfer</td>
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<td>Program Tools &amp; Equipment</td>
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**TOTAL**                           | **€34,260 - €42,266** |
NEXT STEPS

If you’ve spent time researching e² Young Engineers, reviewed the information we’ve provided and checked out our website and you like what you see, the next step is for us to start a conversation - an e² Young Engineers representative will contact you to set up an introductory session. You’ll be able to ask questions and get immediate answers.

Following the first conversation, we will then guide you through our effective, efficient yet thorough planning process.

At each step of the way we’ll help you make the right decision and you’ll learn whether opening an e² Young Engineers franchise is right for you.

Good luck and we look forward to working with you!