

AFRICAN SCHOOL OF INNOVATIONS,
SCIENCE & TECHNOLOGY LIMITED



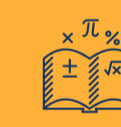
COMPANY PROFILE



Edutainment



Spiral learning



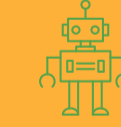
Independent learning



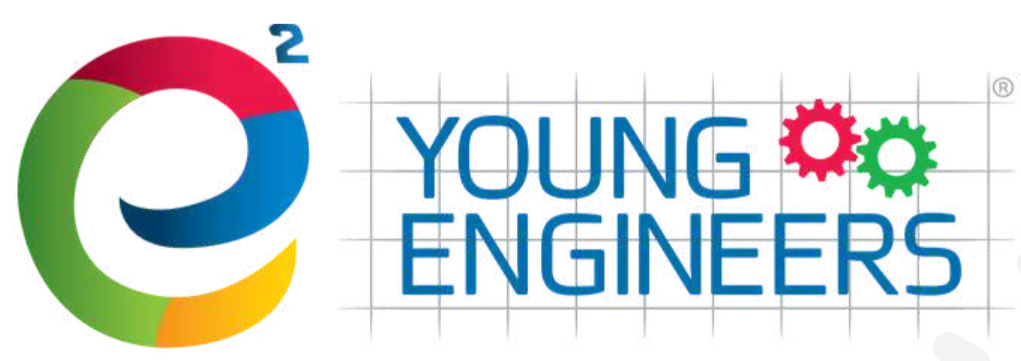
Creativity



Problem based learning



Innovation



Build Your Tomorrow. **Today!**

www.asist.ac.ug





INTRODUCTION

Welcome to the African School of Innovations Science and Technology (ASIST) Ltd. A STEAM organisation that runs international Science, Technology, Engineering, Arts, Maths (STEAM) and robotics educational enrichment programs for children aged between 4-17 years using the e2 Young Engineers curriculum.

The programs run at children's centres, primary, and secondary schools and other educational institutions to nurture the next generation of scientists, innovators, problem solvers, entrepreneurs and creative thinkers.

As the children gain skills through our key pedagogical stages, they come to learn, enjoy and gain a deeper understanding of science and technology in preparation for their future careers.

Our idea is, therefore, to nurture and build a critical mass of uniquely innovative Ugandan scientists, technologists, problem solvers, critical thinkers and entrepreneurs ready for the ever-changing demands of the 21st-century workforce. The guiding model of the ASIST Program is to provide knowledge and its hands-on practical implementation in STEAM basics through the use of K'nex®, Engino® and LEGO® bricks, Robotics kits, and locally available materials blended with Arduino. Our fun, engaging, up-to-date and fulfilling methods of teaching and learning take children through practical stages until they exit with a practical project for implementation in the market.



OUR VISION

Our idea is, therefore, to nurture and build a critical mass of uniquely innovative Ugandan scientists, technologists, problem solvers, critical thinkers and entrepreneurs .

OUR MISSION

To Prepare 4 to 21-year-old children for the changing demands of the 21st-century workforce through the promotion of Science, Technology, Engineering, Arts and Math (STEAM) careers.



OUR PROGRAMS

STAGE 1: Big Builders- 4 to 6 years



The Big Builders curriculum immerses young learners in a diverse educational journey. It delves into animal life cycles, from frogs to dogs, and the enchanting realm of marine creatures like shrimp and sea urchins. Students learn the values of teamwork from ants and explore the mechanics of various vehicles. They're introduced to polygons, the wonders of nature, including desert fruits and pollination, foundational architectural concepts, the vastness of space insights into bird migrations, the art of camouflage, sustainable wind energy, exploration of animal habitats and the dynamics of amusement park rides, the curriculum promises a comprehensive and engaging learning experience about scientific and engineering concepts.



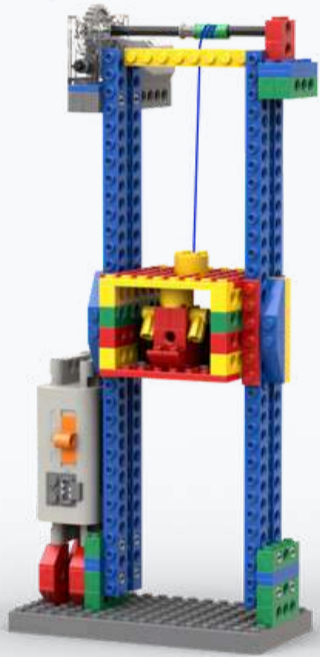
STAGE 2: Algoduddy- 4 to 6 years

The program combines STEM education with spatial recognition, Coding literacy is one of the most important cognitive skills for the 21st century. Young Engineers strives to provide a playful coding education starting from early childhood education and building children's cognitive skills to meet complex challenges as they grow older. We have created qualitative coding frameworks that rely on children's common knowledge and encourage them to practice planning, decision-making, and practical compromises through playing with AlgoBuddy. With the AlgoBuddy program, every kindergarten-aged child acts as a little coding engineer, controlling AlgoBuddy to move, light up, respond to the environment, and engage with varied and unique content, providing an exciting framework for AlgoBuddy to accomplish various tasks.

OUR PROGRAMS

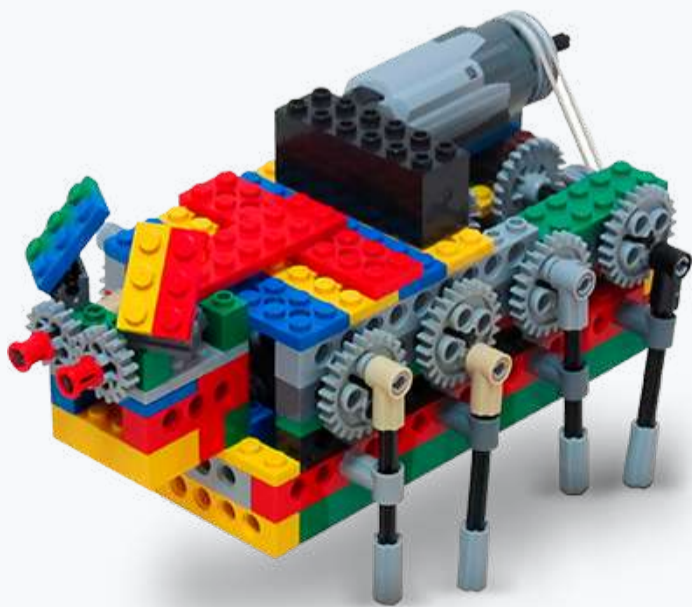
STAGE 3: Bricks Challenge- 6 to 12 years

The program combines STEM education with spatial recognition, fostering a comprehensive understanding of both theoretical concepts and practical applications of mechanical engineering fundamentals. While learning these principles, children are also introduced to important scientists and inventors in history, like Archimedes and Leonardo Da Vinci. We use their stories to inspire and educate young minds. Bricks Challenge students learn about numerous different topics of classical mechanics, including laws of physics, forces, energy, torque, leverage, load distribution, symmetry, centrifugal force, axis turns, functioning of complex mechanisms, mechanical advantage devices and transmissions.



STAGE 4: Galileo Technic- 9 to 12 years

Children will unravel the workings of gear shifting, gearbox mechanisms, and transmission ratios, and delve deep into diverse motion forms ranging from circular to linear, elliptical, and oscillatory movements. The curriculum extends its reach to explore concepts such as asymmetry, angular momentum, and the science behind gyroscopes. Furthermore, students investigate the multifaceted role of universal joints in rotating axles and their applications as devices. Essential topics like mechanical force control, kinematic chains, and elastic force are also covered. This exploration is accentuated by understanding mechanical automation, steering mechanisms, and the interplay between potential and kinetic energies. Overall, the program not only provides foundational knowledge but also ignites a lifelong passion for mechanics.



OUR PROGRAMS

STAGE 5: Robo Bricks- 8 to 12 years

RoboBricks introduces participants to the world of robotics through understanding the basics of mechanical engineering, and the basics of coding such as algorithm planning, formulation of pseudocode, flow charts, WeDo Programming, input and output implementations, loops, multi-threads, keyboard operations, sensor applications, calculation commands.

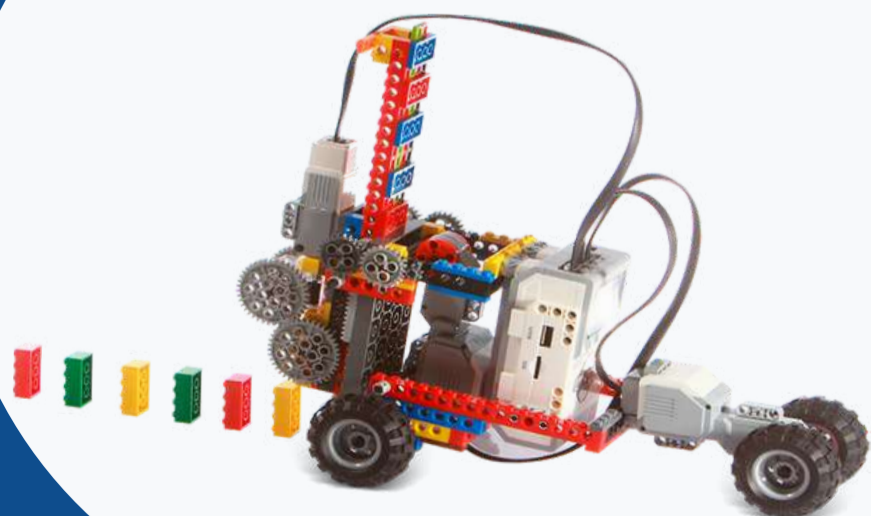
RoboBricks is designed to introduce students to the world of entrepreneurship. Students will experience conducting market research, creating a product page, and using Google Tools, Microsoft PowerPoint, rhetorical methods, and many more.



ROBO BRICKS



ROBOTICS



STAGE 6: Robotics and software engineering- 12 to 21 years

Adopting a holistic methodology, the Robotics Program's design incorporates the spiral learning approach, ensuring each session builds upon the last, fostering a continuous and deepening learning experience. Students learn commands, conditions, loops, planning methods, dynamic programming, applied mathematics, and operators. Students solve the challenging engineering principles through the use of LEGO® EV3 programming software. This program allows them to create and enter codes that move their robot.

OTHER WORKSHOPS & PROGRAMS



BITRHDAY PARTIES AND SPECIAL EVENTS

We offer unforgettable and unique LEGO-themed birthday parties for your child that blend fun, creativity, and learning through building blocks!



CAMPS AND HOLIDAY PROGRAMS

Specially designed programs that operate during school breaks or holidays for children. Our various holiday programs offer a diverse range of activities, from experiments to arts and crafts to building exciting models.



AUTISM SPECTRUM PROGRAMS

The Young Engineers Build Up program empowers children on the autism spectrum to enhance their gentle motor skills, planning, sequence and execution of complex products.



YOUTH AND CORPORATE PROGRAMS

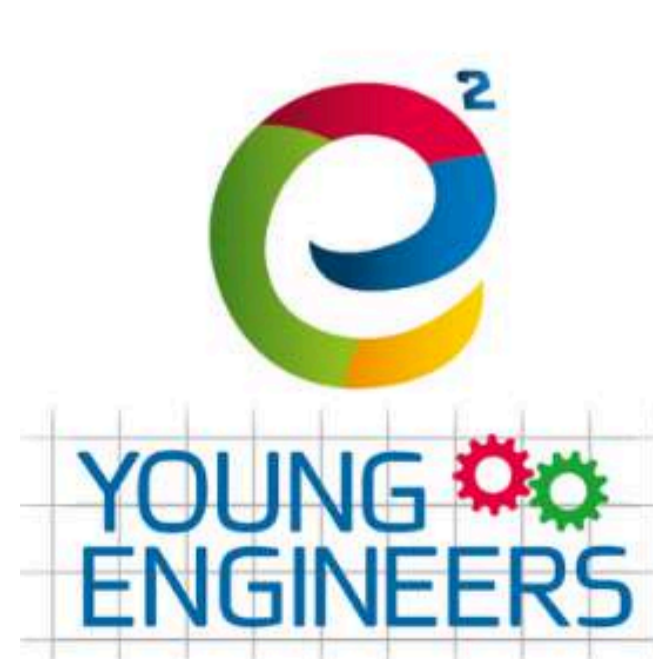
A hands-on, engaging workshop designed to foster innovation, creativity, and collaboration within organizations.



ADULTS AND SENIOR CITIZENS PROGRAMS

Building blocks remain a timeless bridge connecting multiple generations. Experience for two of the most cherished age groups: the wise and experienced seniors and the vibrant, energetic grandchildren.

CERTIFICATE AT THE END OF EACH PROGRAM



ENDORSED BY
HARVARD GRADUATE SCHOOL AS
21ST CENTURY EDUCATION SYSTEM

SEAL OF EXCELLENCE BY
EU COMMISSION

OUR IMPACT REPORT



10+

National and
International
partnerships



**Over
5,000**

Impacted



700

Current
enrollments



15 +

Trained staff



Over 25

Schools

ROBOTICS WORLD CHAMPIONSHIP

Unlimited Opportunities
for the children



OUR COLLABORATIONS AND PARTNERSHIPS



MEET THE MANAGEMENT TEAM



**BOARD
CHAIRMAN**

Arinaitwe Rugyendo



**MANAGING
DIRECTOR**

Maureen Karamagi



**DIRECTOR BUSINESS
DEVELOPMENT AND
STRATEGY**

Locus Otaremwa



**DIRECTOR
OPERATIONS**

Caroline Tusiimire



**HEAD OF STEM
CURRICULUM AND
INNOVATIONS**

Allen Nanyonjo



**OPERATIONS
MANAGER**

Monica Arinaitwe

MEET THE STEM COACHING TEAM



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INSTRUCTOR**
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Tucungwire



**STEM
INSTRUCTOR**
Sheba
Ayinzabyona



**STEM
INSTRUCTOR**
Flavia
Nabukonde



**STEM
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Rose
Katushabe



**STEM
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Isa Kanyonyi



**STEM
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Priscilla Atukwatse



**STEM
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