

NEXT ENGINEERS

Building a world that works

Engineers build worlds. All kinds of worlds.

Engineers build jet engines that ensure safe and sustainable travel, design portable medical equipment to reach more patients around the world, and create wind turbines that generate cleaner energy.

And we need a more diverse engineering profession to bring new perspectives, experiences, insights, solutions, and greater innovation to address our world's challenges.

This work begins in Johannesburg, South Africa.

GE has been a part of the South African community for over 120 years, creating opportunities for all. *Next Engineers* brings new, inspiring programmes to engage diverse students, aged 13-18, in 25 cities to build worlds that haven't even been thought of yet. As one of four inaugural locations, *Next Engineers* ensures Johannesburg will be at the forefront of technology for decades to come.



Let's build the world we want, together. Learn more at www.NextEngineers.org.

IMPACT IN JOHANNESBURG

\$2.5M USD
community investment

3,500 students
reached

36,000 Engineering and College Readiness Educational Hours

Thousands of GE Volunteer hours

Building the Future

Young people play, explore, create, and imagine. By introducing them early to engineering concepts and career opportunities, *Next Engineers* will unlock their potential as the next generation of problem solvers.

Around the world, *Next Engineers* seeks to engage 85,000 young people in the next 10 years, which will:

- ✓ **Address Global Challenges.** Engineers are creating blueprints for a world that works, and engineers from diverse backgrounds bring the variety of perspectives and ideas we need to address the world's most pressing challenges – from sustainable flight to quality healthcare and clean energy.
- ✓ **Light Pathways.** Anyone who wants to be an engineer and shows aptitude for engineering should be able to become an engineer. *Next Engineers* provides opportunities and support for all participants.
- ✓ **Change the Narrative About Engineering.** Many young people have preconceived notions about who can become an engineer, or what engineers do. By introducing students to engineering role models from diverse backgrounds, we are inspiring more students to pursue engineering careers and building a more diverse engineering workforce.



Engaging the Next Generation

Through three core programmes, *Next Engineers* guides students along the path to engineering careers.

Students' participation will be supported and monitored by professionals, using a balance of technology-enabled and hands-on learning resources.

Students completing our Engineering Academy, and who are accepted into higher education engineering degree programme will be awarded **\$6,000 USD in financial support.**



NEXT ENGINEERS PROGRAMMES



Engineering Discovery (Ages 13-14)

Young people build awareness around what engineers do through a variety of short, exploratory sessions. Volunteers deliver creative, hands-on activities in the classroom or community to inspire young people and expand their understanding of what engineering is all about.



Engineering Camp (Ages 14-15)

Students are immersed in the engineering process through a week-long camp experience. Students interact with experienced engineering faculty, staff, and business leaders as they complete design challenges inspired by real-world scenarios, building an identity as aspiring engineers.



Engineering Academy (Ages 15-18)

Over three years, future engineers learn to think and act like engineers and prepare to advance into further education through the Academy. With over 80 hours per year outside of school, the Academy includes a series of immersive design challenges, career coaching, and college-readiness workshops to equip diverse groups of students with the skills they need to build an engineering identity and career.

- Engineering Design Thinking
- Creativity
- Problem-solving
- Teamwork and Collaboration
- Making and Building
- Communication

Thinking Globally, Working Locally

Johannesburg, South Africa, is one of four inaugural locations for *Next Engineers*. With full funding from the GE Foundation and technical support from FHI 360, PROTEC will coordinate and deliver the local programme.

PROTEC is a leading South African non-profit organisation, operating nationally in the field of STEM education since 1982 to help young people succeed in STEM careers through interventions with learners and educators. The local GE business, GE South Africa, will provide engineering expertise, career exposure, and structured learning activities. Together, we are investing in Johannesburg's young people for the future of our world.

Join the GE Foundation in our mission to inspire the next generation of engineers: students from around the world who will be the innovators, problem-solvers, and leaders of tomorrow.

Learn more at www.NextEngineers.org or contact us at NextEngineers.Johannesburg@ge.com.

