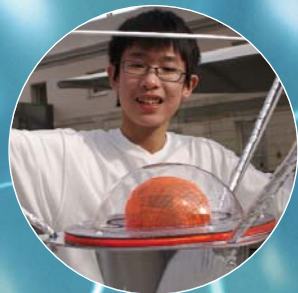


YOUNG**ENGINEERS** **ACTIVITY** **BROCHURE**

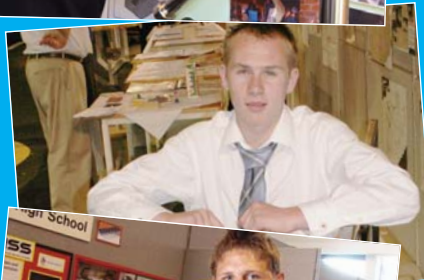
2008



Inside »
Club Network
National Competitions







Sponsors

Young Engineers is a charity reliant on the generous investment of its sponsors and supporters and is always seeking new avenues of income to increase its reach to young people and support our competitions and club network's development and expansion.

Our National Sponsors provide the essential core funding needed to ensure the smooth continuation and development of the Young Engineers programme. We would like to thank them for their continuing generous support. Our National sponsors are:



AIRBUS



Our National sponsors are joined by several other key sponsors and supporters who assist us in a number of ways:

- Provide financial sponsorship or donations
- Provide non financial resources
- Offer to sponsor a regional event
- Release staff to support Young Engineers Clubs
- Sponsor local Young Engineers Clubs
- Provide engineers as judges both regionally and nationally
- Spread the word about Young Engineers

Current sponsors and supporters enjoy significant publicity across the year and have seen other benefits including the ability to influence engineering education, increased public profile, better recruitment and increased staff fulfillment.

Find out more information about our sponsors involvement by visiting:

www.youngeng.org

and click **Sponsors & Partners**

www.youngeng.org/index.asp?page=57

If you are interested in supporting us, please contact Stuart Ellins

Tel: **01428 727995**

to discuss the possibilities further.

YOUNG**ENGINEERS**

- aims to engage young people with the world of engineering. We run a wide range of national competitions and support an extensive club network, providing access for UK-based students aged 7 to 18:



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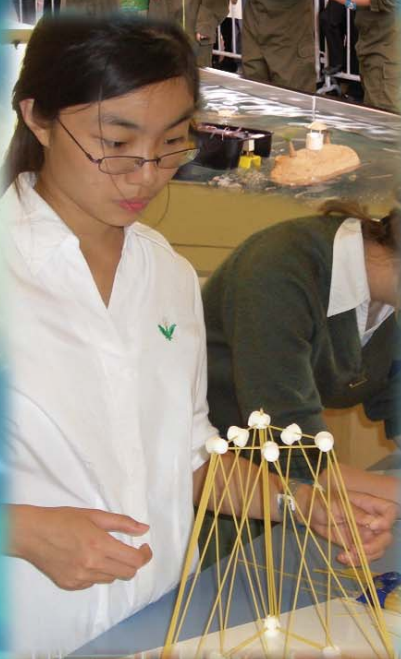
Young Engineers Clubs Network

The Young Engineers Club network provides existing and new Engineering, Science and Technology clubs with a range of invaluable support services that greatly help to maximise excitement and sustain success.

Have the freedom to organise your club in a way that fits your situation and suits your club members' interests, while being part of a national network where you can seek inspiration for club activities, get ideas for fundraising and learn about what competitions you could enter!

Youth clubs, gifted and talented groups, special schools and home-school groups have all also found network membership has broadened their scope and enriched their activities.

Joining the network is **absolutely FREE** with no obligations but loads of benefits. ►►



- » The event is made possible by the dedicated companies and supporters who generously donate time, money and resources at both the preceding regional finals and at the Celebration of Engineering itself. There are endless opportunities for companies and organisations to be involved and see for themselves the wealth of ingenuity and talent displayed by these young engineers.

The Annual Celebration of Engineering takes place in September every year.

More information about the competitions housed at the Celebration of Engineering can be found on the previous pages of this brochure.

For more information about the Annual Celebration of Engineering, go to - **www.youngeng.org** and click **News & Events**
www.youngeng.org/index.asp?page=105



**YOUNG
ENGINEERS**
Talent • Skills • Enterprise





Celebration of Engineering

The Annual Celebration of Engineering is the culmination of Young Engineers' yearly programme of activities. It is a big celebration of the hard work and achievement of our nation's young engineers.

The event houses the finals of three national competitions – the K'Nex Challenge, the Club Awards and Young Engineer for Britain where approximately 100 students will come together to compete in this prestigious celebration. With such high-calibre finalists gathered together from all over the country, to be judged and display their achievements to key figures from academia, government and industry, the event always has an atmosphere charged with excitement, while the unique opportunity to liaise with like-minded contemporaries helps make this event a fun-filled and unforgettable experience.

Each year the high-light of the event is a glittering awards dinner where an honoured guest presents the fantastic array of prizes (total worth in excess of £50,000). The many awards recognise the ingenuity, creativity, team spirit, project management and marketing skills that the students display whether on individual projects or on collective club achievements.

The kudos and recognition earned for both the young engineers and the represented schools is phenomenal; with local and national press coverage, radio and TV links, opportunities to meet potential sponsors and supporters – which has led in the past to projects realising their full commercial potential. »



» **Membership packs** - for club members.

These include a drawstring bag, pin badge, ruler/calculator, pen, pencil, membership card and membership card. Helping to create a strong club identity and promote the club to new members and their peer groups. Club leaders also receive a badge and club certificate.

Club Handbook - giving practical advice on how to maximise the success of your club.

Activity Bank - ready made ideas for club sessions. Most also provide details on the cost of the activity, worksheets, extension ideas, technical explanations and curriculum links.

Discounts - helping ease the financial burden on clubs.

National Challenges and Competitions

- stretch your members with one of our own national club challenges or with one of the many other regional and national competitions we give you easy access to.

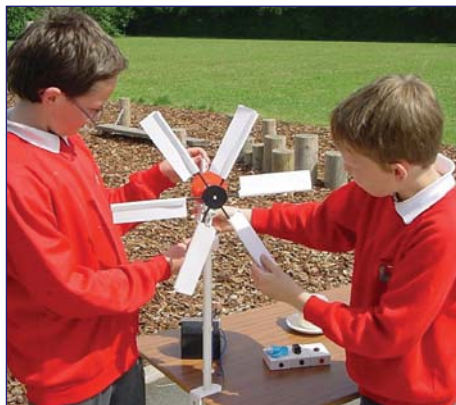
Events Calendar - allowing club leaders to easily view what engineering youth initiatives are happening in their area.

Club Leader Forum - enabling club leaders to enter discussions and pick up advice, hints and tips to help them with the running of their club.

Support Pages - an extensive directory of club support pages, enabling club leaders to easily locate the services they need without wading through long lists of links.

Recognition and Rewards - celebrate your club's success at our **Regional Club Showcases** gain recognition for club leaders efforts through the Leadership Awards.

Media coverage - gain media exposure for your club and parent organisation (i.e. your school or youth group), by publicising photos of club activities on our website, linking your club website to our own, and gaining local and national media coverage through entering your club into competitions.

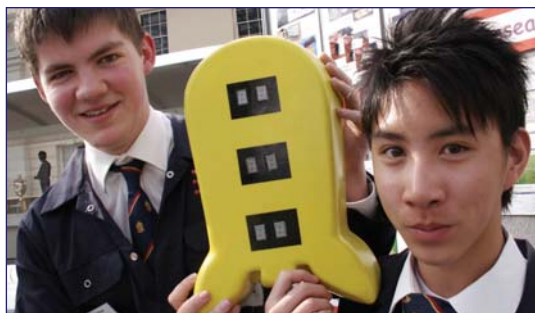


Fulcrum Newsletter every term and relevant email updates - to provide you with the network news and keep you up to date with the latest initiatives.

Join today!

To register a club or to find out more about the network and eligibility visit **www.youngeng.org** and click Club Network:

www.youngeng.org/index.asp?page=55



Regional Showcase & Club Awards

We are excited to offer clubs the opportunity to celebrate their year's achievements at our Regional Club Showcases in June and July!

The day promises to be an exciting event where Clubs in each region can get together, display their work, make friends and exchange ideas. They will also get to take part in an exciting 'on the spot' engineering challenge. Although there will be some element of competition, this event is aimed to be primarily a celebration of achievement where everyone's efforts are recognised.

Prizes will include 'Best Club' and 'Challenge Winner', with all clubs receiving a 'goody pack' containing resources for future projects. The event organisers will also be looking out for candidates to invite to the prestigious National Club Awards, where clubs could go on to be titled 'Young Engineers Club of the Year'!

The Regional Showcases are open to all Young Engineers clubs – large and small, primary and secondary, new and established. Clubs attending will be asked to select a team of four students to represent the club and prepare a display for the event, which shows photos of the club in action, projects created and so on. ►►



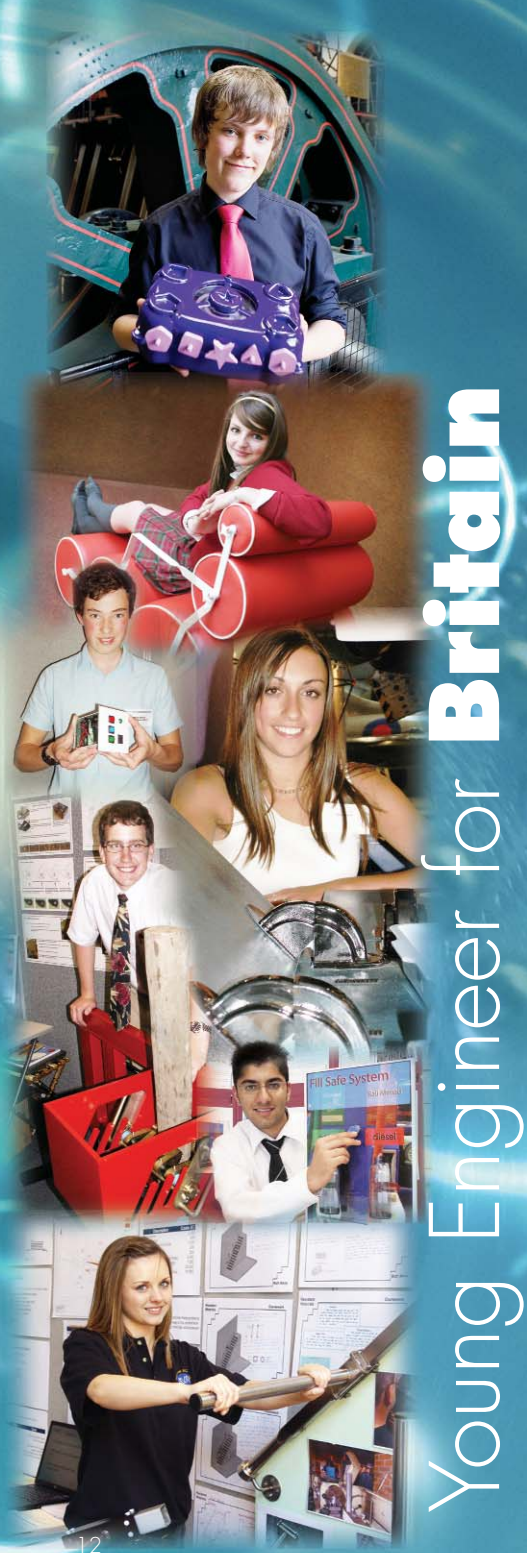
» Who can enter?

Students can enter this annual competition if they are aged 11 to 18 years old and at school or college. They can enter as individuals or in teams to a maximum of four team members. Students with an interest in any branch of engineering, technology or design should enter now - this competition is for them. GCSE , A-level or equivalent projects are ideal, they won't even require extra work! Sadly projects conceived under the Year in Industry, Engineering Education Scheme or Young Engineers Challenges are not eligible to enter. Projects should have originality and marketable values.

Talent deserves recognition, so enter now.

For more information and to register your projects go to: **www.youngeng.org**
and click Competitions
www.youngeng.org/index.asp?page=66





THE CHALLENGE

Young Engineers challenges students to use their imagination to create, design and develop an original idea for a commercially viable device, item or system that meets a useful everyday need. It could be for a sporting activity, hobby or task at work or in the home, or for people with special needs. It could even be just a really great invention, design or idea! We especially like the original and unique!

The opportunity

Taking part in this prestigious competition provides an opportunity for students to learn more about all aspects of engineering, as well as giving a vital practical, technical and marketing experience, whilst having a lot of fun turning the idea into practice. Competitors will be invited to attend regional finals to showcase their projects and win prizes for both themselves and their school. Those entrants invited to the National Final will attend the Awards Celebration Dinner, held each year at a prestigious venue where they will have the opportunity to win big cash prizes as well as fantastic trips abroad. ➤





» ***Places at each regional event are limited, so reserve your place now to avoid disappointment!!***

For more information visit:

www.youngeng.org and click Competitions
www.youngeng.org/index.asp?page=71



Airport Adventure Zone **Challenge**

BAA 



» Who can enter?

The challenge is open to primary schools or organisations teaching school years 4, 5 and 6 or equivalent (approximately pupils aged 8 - 11 years old) in the UK.

How to enter

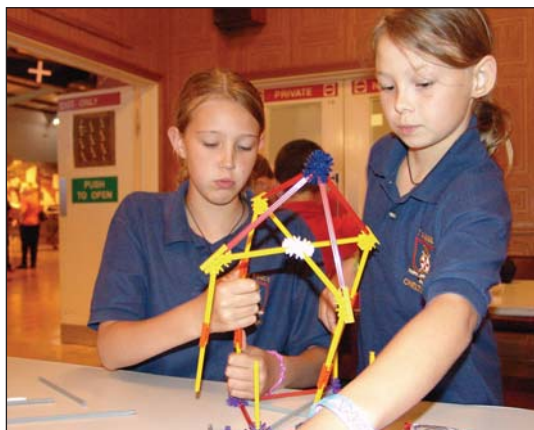
Entry for the challenge is open until 30 April (subject to individual local organiser schedules). Schools should register their interest in the challenge by entering their details online at the Young Engineers website.

What happens next?

Once your entry is received you will be contacted by one of our many local organisers based around the UK. The organiser will arrange with you a suitable date for the challenge to be held. Special K'Nex kits are provided for the challenge.

The Challenges

The challenge has four levels of participation: School - The K'Nexperimenter, Area/County - The K'Nexplorer, Regional - The K'Nextronaut and National - The K'Nexpert. Each level involves pupils working in teams of two to demonstrate their imagination, creativity and ingenuity by designing and making a model using specially provided K'Nex kits. Every level has different fun challenges with the best team progressing to the next level. There are rewards at every stage for both schools and pupils. Every pupil that participates will receive a certificate of achievement which shows which level they have reached.



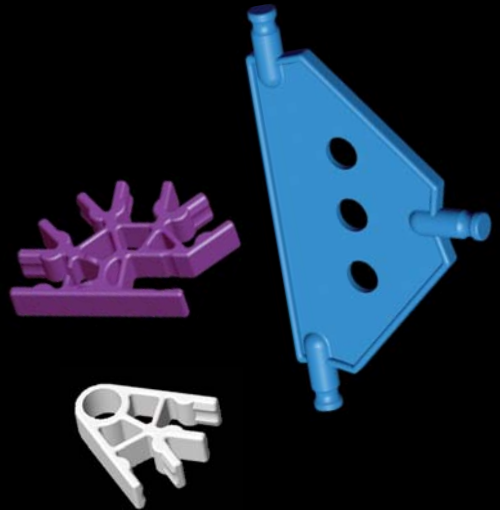
To request a place for your school in this fantastic fun challenge visit:

www.youngeng.org

and click Competitions

www.youngeng.org/index.asp?page=67

Young Engineers & Hasbro are working together with the SETPOINT's, the Science & Engineering Ambassadors (SEAs) and the Education Business Partnerships to bring you the K'Nex Challenge. The aim of this challenge is to provide primary school children with an introduction to the exciting world of engineering and technology. »



K'Nex challenge

» **Where travellers' adventures begin and holidays start.** With people travelling to world-wide destinations, the airport experience has become part of the thrilling journey. Your challenge is to make the airport experience even more exciting and enjoyable. We challenge you to design and develop an aviation themed entertainment and lounge zone solely for young people.

- **Make it fun.**
- **Make it entertaining.**
- **Make it EXCITING.**
- **Make it a place you WANT to be!**

Zone Criteria

The zone has been allocated a space measuring 30m length x 15m wide x 10m high and which is located airside (through security) in an airport terminal. The room has power supplies, ventilation, lighting and heating, separate toilets and staff room. It should keep people occupied for at least an hour and have a variety of hands-on experiences that are applicable to your age group. Use all of the space provided to design the perfect Airport Adventure Zone.



BAA
Communities
Trust

Entry Categories

The challenge is open to all Young Engineers Clubs and UK schools. Entries may be made by individuals or teams up to a maximum of FOUR students aged between year group 4 and year group 13 or equivalent.

Prizes

The following prizes will be awarded to the winning team in each of the three age categories:

- Best Display and Presentation
- Most Creative and Best Constructed 'Adventure Zone'

Dates To Remember

Entry and Design Submission Closing Date
Notification of Results
National Final

18 December 2006
10 January 2007
End April 2007

Registration and full details of the challenge are online at: **www.youngeng.org**
and click Competitions: **www.youngeng.org**

Funding for the project comes from BAA Communities Trust, a charity established 10 years ago by BAA. Since then it has made grants of nearly £4 million for projects in the communities local to the company's seven UK airports, to support charitable initiatives by staff and to national and global projects linked to youth development.



Operation Enigma

**The mission has begun.....
Can you break the secret codes and
discover what needs rescuing and
how to do it?**

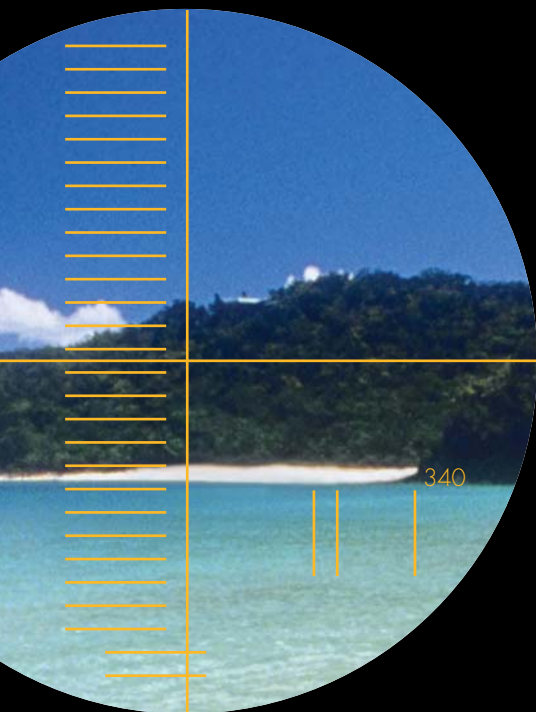
HMS STEALTH, a nuclear powered submarine is patrolling 2km off the coastline of ZINGARA on a top secret mission, gathering intelligence and conducting surveillance. Last night the submarine observed a strange flash in the sky heading towards ZINGARA. Over the course of the past three hours, the radio operator has monitored an increased level of signal traffic between the country's military headquarters in the capital, MANUBI, and the naval base at VEEKA. The radio operator managed to intercept and record the coded messages.

The Captain soon realised that to decipher the coded messages he would need expert help. Knowing that a group of Young Engineers were holidaying close by, the Captain transmitted the coded messages to them to see if they could break the code and help to solve the mystery in ZINGARA.

**Your Challenge is to crack the code
and take all necessary action to assist
the Captain. »**



For full information and to register entries visit:
www.youngeng.org and click Competitions
www.youngeng.org/index.asp?page=68



► Your Mission

Register online at Young Engineers and form a team of no more than 4 members. Read the Operational Guidelines and Mission Conditions. Crack the coded messages in the Signals from HMS STEALTH to discover information to help you design and construct a special vehicle to successfully complete Operation **Enigma**.

Mission Conditions

The challenge is open to all Young Engineers Clubs and UK Schools. Students aged 12-18 may enter as individuals or as teams to a maximum 4 members.

Mission Rewards

Overall Mission Completion
Best Overall Design and Construction
Best Presentation and Code Breaking
Best Mission Team Disguise
Titanic Effort Award

1st and 2nd each age group
1st and 2nd each age group
1st and 2nd each age group
1st each age group
Awarded to one team

Mission Timeline

September 06
October 06
11 December 06
15 December 06
16 February 07
29 March 07

Mission start and release of Signal 1.
Signal 2 released after codenamed email received
Entry closing and submission date for the design solution
Signal 3 released
Signal 4 released
Mission Completion - Operation **Enigma**



YOUNG**ENGINEERS**

CONTACT US



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