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Winner of 2019 Create the Trophy competition announced

London, 12 February 2019: Today the Queen Elizabeth Prize for Engineering (QEPrize) announced 16-year-old Jack Jiang from Hong Kong as the winner of the 2019 Create the Trophy competition. The competition, open to those aged between 14 and 24 around the world, seeks innovative trophy designs to be presented to the winners of the QEPrize. Jack's intricate design impressed the judges with its complexity and balance, combining traditional trophy shapes with elements of modern wind turbines.

The 2019 competition saw record engagement from over 50 countries worldwide, and a breadth of unique and innovative designs. The ten finalists were then selected for review by an expert panel of judges – designers and engineers led by Ian Blatchford, Director and Chief Executive of the Science Museum Group. Joining him on the panel were Roma Agrawal, a structural engineer at Aecom; Rebeca Ramos, a designer at Heatherwick Studio; and Zoe Laughlin, co-founder and Director of the Institute of Making.

Jack is currently in year 11 studying Chemistry, Physics, Biology, English, Maths, and Art. He is interested in architectural engineering and believes that engineers are key to solving the world's future challenges. "There are countless environmental problems around the world, and right now they are only getting worse. However, I know that it will be engineers that provide solutions to them," said Jack.

Jack's design will be 3D-printed and awarded to the 2019 winners of the £1 million prize, regarded as the world's most prestigious engineering accolade, later this year. In addition to receiving a state-of-the-art laptop, Jack is invited to see his trophy presented to the winners. The QEPrize celebrates an engineer or group of engineers responsible for a groundbreaking innovation of significant positive impact on humanity. The 2019 prize will be awarded to Dr Bradford Parkinson, Professor James Spilker, Hugo Freuhauf and Richard Schwartz for their work creating the first truly global, satellite-based positioning system – GPS.

When asked about the inspiration behind his design, Jack said: "The inspiration behind this design came, in part, from more traditional trophy shapes. It was also inspired by the efforts of engineers working with sustainable technology, and so I incorporated the design of wind turbines, which can be seen from above."

Also shortlisted were Hannah Goldsmith (UK); Clay Berg (USA); Enoo Rasmussen (Sweden); Rodosthenis Charalampous (Cyprus); Andrew Park (USA); Elijah Haider (Germany); Harvey Williams (UK); Jaco Botha (South Africa); and Khushi Patel (USA).



The Create the Trophy competition gives young people the opportunity to create a piece of engineering history using the latest in 3D technology, QEPrize3D, a free app available on both iOS and Android. The app provides a catalogue of shapes and materials to choose from, and an in-app photo studio allows users to show off their creations.

The shortlisted designs can all be viewed at: geprize.org/trophy-2019.

Sir Ian Blatchford, director of the Science Museum Group and chairman of the judging panel, said of the winning trophy:

“What strikes me about the winning trophy is how well it manages to demonstrate its two main inspirations. It is both an elegant design that acknowledges the traditional trophy form, but its resemblance to wind turbines shows Jack’s a strong passion for engineering and its role in solving future global problems.

“We also chose Jack’s design for its sheer exuberance – it will require a great amount of concentration and imagination to make. That quality appeals to the judges, and we will work closely with Jack to realise the final trophy.”

Roma Agrawal, member of the judging panel, said:

“The winning design really stands out to us. There is so much going on, it’s a very dynamic creation. It looks like a traditional trophy from one angle, but if you look at it from above then four beautifully curved shapes, reminiscent of a wind turbine, are revealed. What I particularly enjoy about Jack’s design is how he managed to create very gradual and subtle curves out of what are quite blocky building pieces. I thought he did a great job of pushing the boundaries.”

Rebeca Ramos, member of the judging panel, said: “It was instantly clear to us that Jack put a lot of thought and effort into his design. It’s a lot more complex than the obvious solutions you’d consider from the individual tools in the app. He ended up with a shape that works incredibly well as a trophy, and his iterative use of individual shapes to create an intricate structure mirrors engineering’s iterative nature. To me, that was a very successful combination, and I would like to see more of that in the next competition.”

Zoe Laughlin, member of the judging panel, said: “What stood out about Jack’s design was how he balanced the referencing of something more traditional with something more contemporary. We liked the fact that it’s not trying to be a monument. It’s not a doorstop, it’s something that engages you, makes you want to pick it up, and makes you wonder how on earth this thing is – or will be – made. I think that’s really important. It’s not just something that’s going to sit on the shelf, you want to hold it and turn it in your hands.”

Ends

About the competition



Every two years, those aged between 14 and 24 are invited to submit a timeless design that encapsulates the spirit of engineering. Entries are made via the Create the Trophy app, which is free to download through the Apple [App Store](#) and [Amazon Appstore](#). For more details (including rules and conditions), please go to: geprize.org/trophy.

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About the judging panel

Sir Ian Blatchford is Director & Chief Executive of the Science Museum Group, which includes the National Railway Museum in York and Shildon; the Museum of Science & Industry; and the National Media Museum in Bradford. The Science Museum Group plays a vital role in helping to inspire the next generation of scientists and engineers, showcasing the best of British research and providing accessible and inspiring exhibitions and events for both adults and children. He was appointed a Knight Bachelor in the 2019 New Year Honours for services to Cultural Education.

Roma Agrawal is a structural engineer at AECOM. Previously, she worked as design manager at Interserve, and was a senior structural engineer on the Shard in London. Roma was awarded the 'Diamond Award for Engineering Excellence' by the Association for Consultancy and Engineering and 'Young Structural Engineer of the Year' by the Institution of Structural Engineers. Roma is an advocate of engineering, scientific, and technical careers to young people.

Rebeca Ramos is an architect, designer and producer with international experience in a broad range of architectural and creative projects. She joined Heatherwick Studio in 2015 where she has worked in Pier 55 in NYC and Google Kings Cross in London. She is currently the Project Leader for the Maggie's Care Centre Leeds.

Zoe Laughlin is the co-founder and Director of the Institute of Making. She is an artist, maker, presenter, and materials expert exploring the engineering, science, design, and craft of 'stuff'. She earned a PhD in Material Science in the Department of Engineering at [King's College London](#) in 2010, and works at the interface of the science, art, craft and design of materials.

Further information

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About the Queen Elizabeth Prize for Engineering

The Queen Elizabeth Prize for Engineering (QEPrize) is the world's most prestigious engineering prize, celebrating the engineers responsible for a ground-breaking innovation in engineering that has been of global benefit to humanity. The £1million prize is awarded every two years; it aims to raise the public profile of engineering and inspire young people to take up the engineering challenges of the future.

The inaugural winners in 2013 were Robert Kahn, Vint Cerf, Louis Pouzin, Sir Tim Berners-Lee and Marc Andreessen for revolutionising the way we communicate. Their seminal contributions led to the development of the Internet, the World Wide Web, and the Mosaic browser. In 2015, the QEPrize was awarded to Dr Robert Langer for his revolutionary advances and leadership in engineering at the interface with chemistry and medicine. His pioneering work in controlled release large molecule drug delivery systems has benefitted the lives of more than 2 billion people worldwide. In 2017, Eric Fossum, George Smith, Nobukazu Teranishi, and Michael Tompsett were awarded the prize for their combined contributions to digital imaging.

About the Queen Elizabeth Prize for Engineering Foundation

The Queen Elizabeth Prize for Engineering Foundation was established to administer the Queen Elizabeth Prize for Engineering and is based at the Royal Academy of Engineering.

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