

## The \$4 million challenge to transform the world of people with lower-limb paralysis

- Toyota Mobility Foundation & Nesta’s Challenge Prize Centre launch a multi-million dollar challenge to expand mobility across the globe for people with lower-limb paralysis
- Mobility Unlimited Challenge will reward development of personal mobility devices incorporating intelligent systems
- Solutions will come from across the technological and design spectrum, from artificial intelligence to exoskeletons
- Challenge supported by international ambassadors from worlds of sport, media, design, art and technology.

**Los Angeles, California, USA (November 16, 2017)** - The **Toyota Mobility Foundation**, in partnership with **Nesta’s Challenge Prize Centre**, has launched a **\$4 million dollar global challenge** to change the lives of people with lower-limb paralysis, culminating in the unveiling of the winners in Tokyo in 2020.

The **Mobility Unlimited Challenge** is seeking teams around the world to create **game-changing technology** that will help radically improve the mobility and independence of paralyzed people.

The Mobility Unlimited Challenge aims to harness creative thinking from across the world to **accelerate innovation and encourage collaboration with users** to find winning devices to transform the world for people with lower-limb paralysis. The Challenge will reward the development of personal mobility devices incorporating intelligent systems.

The mobility solutions of the future could include anything **from exoskeletons, to artificial intelligence and machine learning, from cloud computing to batteries.**

Around the world, millions of people are living with lower-limb paralysis (the most common causes being strokes, spinal cord injury and multiple sclerosis). While there are no statistics on paralysis worldwide, the World Health Organization estimates **there are 250,000-500,000 new cases of spinal cord injury globally every year.**

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Innovation in “smarter” mobility technology has the potential to create personal devices that are better integrated with the user’s body and the environment. But the application of this groundbreaking technology is slow due to disincentives such as small and fragmented markets, regulatory burdens, and reimbursement complexities from healthcare systems and insurers.

This can make the field unattractive to small or new entrants, and prevent innovative solutions by existing innovators from getting to market. Even though huge advances have been made in improving travel between places, innovation in everyday functionality still lags behind.

The Mobility Unlimited Challenge Prize is supported by a number of ambassadors from around the world, all of whom have experience of living with lower-limb paralysis. **Global ambassadors** include: **August de los Reyes**, Head of Design at Pinterest; **Yinka Shonibare MBE**, Turner-Prize nominated British/Nigerian artist; **Sandra Khumalo**, South African Paralympic rower; Indian athlete and campaigner **Preethi Srinivasan**; **Sophie Morgan**, British TV presenter; US Paralympian **Tatyana McFadden**; and **Rory A Cooper**, director of the Human Engineering Research Laboratories at the University of Pittsburgh.

All global ambassadors are available for interview on request.

**Ryan Klem**, Director of Programs for Toyota Mobility Foundation stated:

“This is the beginning of our challenge, a three-year journey concluding in Tokyo in 2020. A journey where the greatest minds in technology, design and engineering, from every corner of the world, will compete to make the environment and society more accessible for people with lower-limb paralysis. We know we don’t have solutions yet: this Challenge is about working with the people who can help develop them.”

**Charlotte Macken** of Nesta’s Challenge Prize Centre, commented:

“Challenge Prizes are a way to make innovation happen. The Mobility Unlimited Challenge is about the freedom to move. It will support innovators, creating cutting-edge personal mobility devices incorporating smart technology and intelligent systems that will transform people’s lives.”

A panel of expert judges will pick **five finalists** who will each receive **\$500,000** to take their concepts from an intelligent insight to a prototype. **The Challenge winner will receive \$1,000,000** to help get their product to market - with the winning concept unveiled in Tokyo in 2020.

The Mobility Unlimited Challenge aims to attract and support smaller innovators who might otherwise struggle to break into the assistive technology market. **The Discovery Awards** will provide seed funding of \$50,000 for 10 groups with promising concepts, but who might otherwise lack the resources to enter the Challenge. Interested innovators can apply online at [mobilityunlimited.org](http://mobilityunlimited.org).

Building on universal design principles to create a more equitable environment, entries for the Mobility Unlimited Challenge will be user-centered. The Challenge will be a catalyst for innovation through co-creation with the people around the world who will benefit most from the solutions discovered by our entrants.

At the end of the Mobility Unlimited Challenge, the Toyota Mobility Foundation and Nesta’s Challenge Prize Centre will have supported teams of innovators in creating leading edge technological solutions, opening a new chapter in personal mobility for people with lower-limb paralysis.

For more information please visit [mobilityunlimited.org](http://mobilityunlimited.org)

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## Notes to Editors

### About the Mobility Unlimited Challenge Prize

The Challenge prize is a tried and tested method for supporting innovation. It offers a reward to whoever can first or most effectively meet a defined challenge. Challenge prizes are effective tools for:

- Spurring and supporting innovative solutions
- Overcoming market failure
- Widening the pool of innovators, prompting collaboration
- Creating new markets
- Raising awareness

### How the \$4 million will be used

The Toyota Mobility Foundation Challenge \$4m prize pot will be used as follows:

- Discovery Awards - 10 awards of \$50,000 (*combined total: \$500,000*)  
*Means-tested grants to support small, early stage innovators to enter the Challenge.*
- Finalist Grants - five awards of \$500,000 (*combined total: \$2,500,000*)  
*Grants given to 5 finalists to spend during the Finalist Stage to develop their prototype device. Finalists will be selected from the eligible entries on the basis of their ability to meet the eligibility criteria requirements and their potential against the judging criteria.*
- Winner's Award - one award of \$1m (*combined total: \$1,000,000*)  
*Grant awarded to the finalist whose prototype device best meets the challenge statement, demonstrating how it meets the judging criteria.*

**Deadlines for the Challenge Prize**  
**Toyota Mobility Foundation Challenge - Key Dates**

<b>Key Dates</b>	
Global Launch and Opening of Entry Period	16 Nov 2017
Announcement of Judging Panel	1 Feb 2018
Deadline for Entries to Discovery Awards	7 Feb 2018 (23:59 GMT)
Assessment of Discovery Awards	8 Feb - 7 Mar 2018
Discovery Awards Judging Panel	22-23 Mar 2018
Public Announcement of Discovery Awardees	11 Apr 2018
Deadline for Entries to the Challenge End of Entry Period	15 Aug 2018 (23:59 BST)
Assessment of Entries	16 Aug -15 Oct 2018
Judging Panel	12-16 Nov 2018
Finalists Notified (embargoed)	10 Dec 2018
Public Announcement of Finalists	14 Jan 2019
Induction Camp	4-8 Mar 2019
Site visits to Finalists	4 Nov - 13 Dec 2019
Pre-Submission Workshop	30-31 Jan 2020
Deadline for Written Submissions	8 Jun 2020 (23:59 BST)
Live Demonstrations (prototypes with pilots)	15 Jul 2020
Judging Panel (including Finalists pitches to Judges)	16 - 17 Jul 2020
Public Announcement of the Winner	Sept 2020 <i>(tbc)</i>

### **What happens over the three years of the Mobility Unlimited Challenge?**

- The Mobility Unlimited Challenge will reach out to people with lower-limb paralysis. The Challenge requires collaboration and co-creation, so that people with lower limb paralysis can engage with and shape the mobility solutions of the future.
- The Challenge will crowdsource the everyday challenges that people with lower-limb paralysis face, helping to inspire teams of potential entrants and shape their entries.
- We're giving potential entrants nine months - a significant entry period - to maximize the range of entries, concepts and ideas. On 15 August 2018, the Challenge will close to new entries and the panel of global experts will begin the process of judging the entries.
- This isn't just about the one winner - the five finalists each get \$500,000 to take their ideas even closer to reality, meaning the prize has the potential to launch five concepts into the public realm.
- The Challenge will be open and transparent. All entrants will keep their Intellectual Property. This is about making solutions happen, with the aim of bringing new products to market that support people with lower-limb paralysis.

### **About Toyota Mobility Foundation**

- The Toyota Mobility Foundation was formed by Toyota in 2014 with the aim of creating a truly mobile society that will help people live better lives no matter where they are.
- The Foundation aims to support strong mobility systems while eliminating disparities in mobility.
- The Toyota Mobility Foundation works to provide innovative mobility solutions across the globe, from traffic calming in the world's busiest cities to hydrogen energy solutions.
- The mission of the Toyota Mobility Foundation is to enable more people to go more places by sharing knowledge, partnering with others and using their innovative spirit to build a more joyful mobile society.
- It utilizes Toyota's expertise in technology, safety, and the environment, working in partnership with universities, government, non-profit organizations, research institutions and other organizations to address mobility issues around the world.

### **About Nesta's Challenge Prize Centre**

Nesta is a global innovation foundation, and its Challenge Prize Centre is an internationally renowned center of expertise in the design and development of challenge prizes for societal impact.

The Challenge Prize Centre uses prizes to stimulate innovative solutions to some of the biggest challenges we face, including:

- The Longitude Prize, created to tackle growing levels of antimicrobial resistance and reduce the use of antibiotics.
- The Inclusive Technology Prize, a challenge prize to encourage innovations that gives disabled people equal access to life's opportunities.
- The UNDP's Renewable Energy Challenge Prize, to find a renewable energy solution capable of providing off-grid power to cover the needs of war-returnee families in rural Bosnia and Herzegovina.
- The Dynamic Demand Challenge Prize, created to reduce carbon emissions by shifting energy demand to off peak times or through excess renewable generation.

To find out more visit <http://challengeprizecentre.org/>

### **About Toyota's contribution in mobility**

- Toyota is a world leader in reimagining mobility.
- Toyota has already collaborated with a number of experts - sharing their knowledge and expertise and applying robotics to assist people with limited mobility.

This has included projects such as

- IBot: A four-wheel drive modular personal mobility platform that can roll across varied terrain, raise a seated user to the eye-level-standing height by raising up and balancing on two wheels; all while relying on sophisticated sensors and gyroscopes to maintain the chair's balance
- Human Support Robot (HSR): Developed to assist independent home living for persons with limited arm or leg mobility in their everyday activities with the aim of practical applications in the field of care for the elderly
- Project BLAID: Awareness on your shoulders. A device that helps people do more with greater freedom, independence and confidence.

See more here: <https://www.mobilityforall.com/global/en/Mobility/#>