

# Tech Factor Challenge 2016

## Competitor's Kit

### 1 Introduction

Tech Factor Challenge is a technology competition that aims to spur innovation through the creative application of technology to solve a real world problem. Students, start-ups, SMEs and the public are invited to use their imagination and passion to create and build a prototype of a technology solution revolving around the Challenge Theme.

### 2 Challenge Statements

The theme for Tech Factor Challenge 2016 is **Aging-in-Place**,  
You may choose between 2 challenge categories - Mobility Category & Smart H2 Category:

#### Mobility Category

Design and develop equipment or robotics application ideas to allow the elderly to move within their HDB home and community safely and independently, unaided by a caregiver, or to allow a single caregiver to support the elderly in activities of daily living (ADL) safely and confidently.

Participants are to build a prototype to demonstrate the idea and solutions are to be non-invasive. ST Electronics will be providing a Healthcare Internet of Things (IoT) cloud platform for participants who would like to 'plug-in' their prototypes into a ready platform. Using the IoT platform, vital signs monitoring, statistics and analytics can be viewed via one common tool. The IoT platform will support web and mobile apps developed by participants based on open standard. Participants are strongly encouraged to leverage on ST Electronics' Healthcare IoT platform.

This category aims to look into technologies that can help the frail senior maintain their mobility and independence. The other aspect focuses on the often ignored caregiver who experiences the same level of stresses and risk of injury during caretaking, where they are often a major part of the mobility that the elderly requires, e.g. wheeling them around, transferring them from point to point, or assisting them with activities of daily living (ADL), which includes the following:



Feeding oneself



Medical Adherence



Mobility  
(Walking / Mechanical Assistance)



Bathing & Cleaning oneself



Personal Hygiene  
(Brushing teeth, washing hands, washing soiled, etc.)



Getting dressed by oneself



Using the washroom independently



Maintaining one's living space  
(Washing & hanging laundry, Sweeping & mopping of floors, etc.)

## **Smart H2 (Home & Health) Category**

Design and develop software accompanying a hardware prototype to allow an elderly to age at home, remain healthy through smart monitoring and management of health conditions, medical regime, rehabilitation activities, and safe living through detection of condition abnormalities or irregular activity patterns within their own homes, as well as to remain socially connected to caregivers, family and healthcare professionals.

Solutions under the Smart H2 Category requires both hardware and software (including apps) components. ST Electronics will be providing a Healthcare Internet of Things (IoT) cloud platform for participants who would like to 'plug-in' their prototypes into a ready platform. Using the IoT platform, vital signs monitoring, statistics and analytics can be viewed via one common tool. The IoT platform will support web and mobile apps developed by participants based on open standard. Participants are strongly encouraged to leverage on ST Electronics' Healthcare IoT platform.

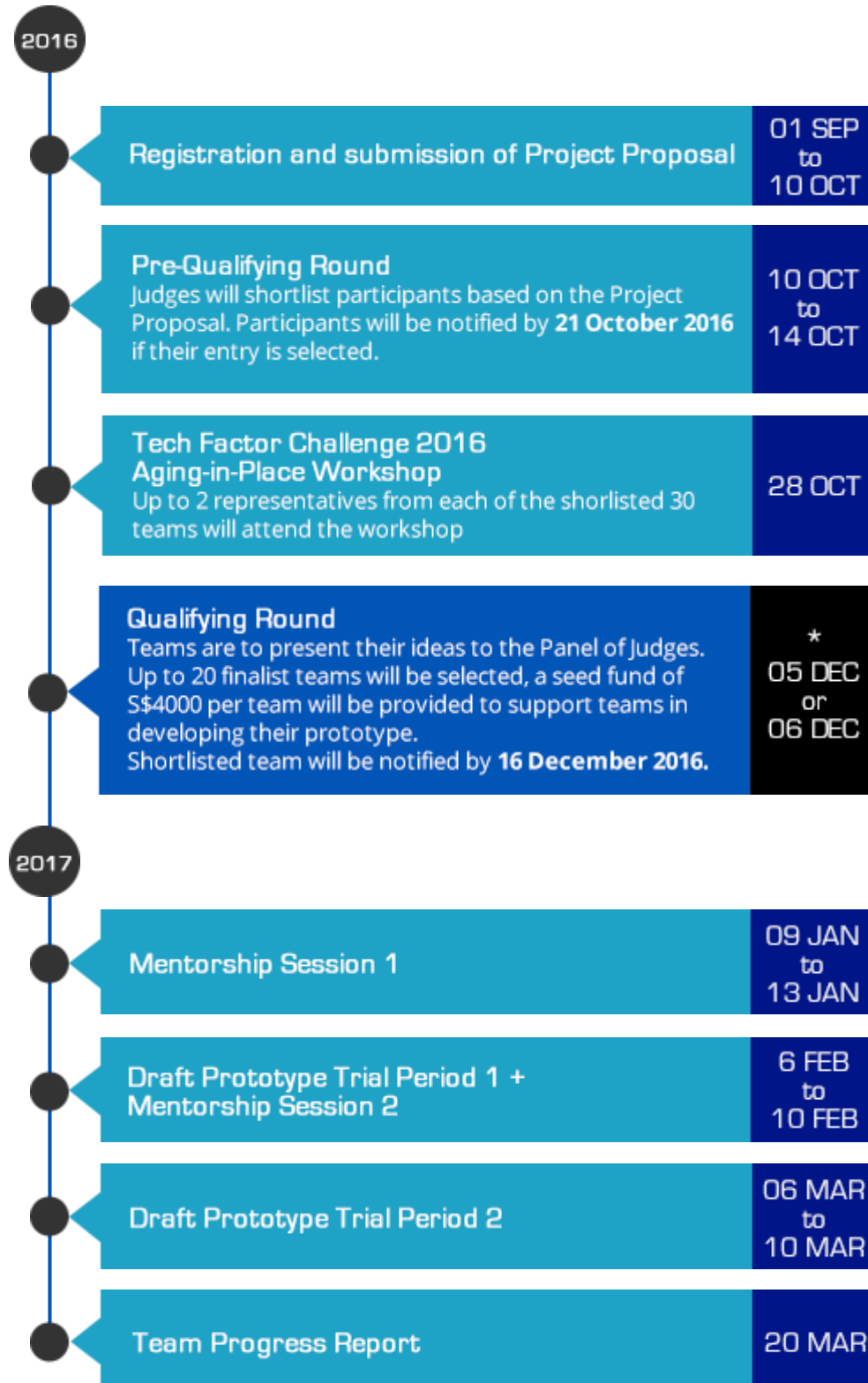
This area focuses on using Info-Comm Technologies (ICT) and assistive technologies, to provide the appropriate level of care and safety for the elderly. This allows chronic disease sufferers to remain healthy, safe and in a stable condition, in the comfort of their homes hence delaying the need for institutionalisation.

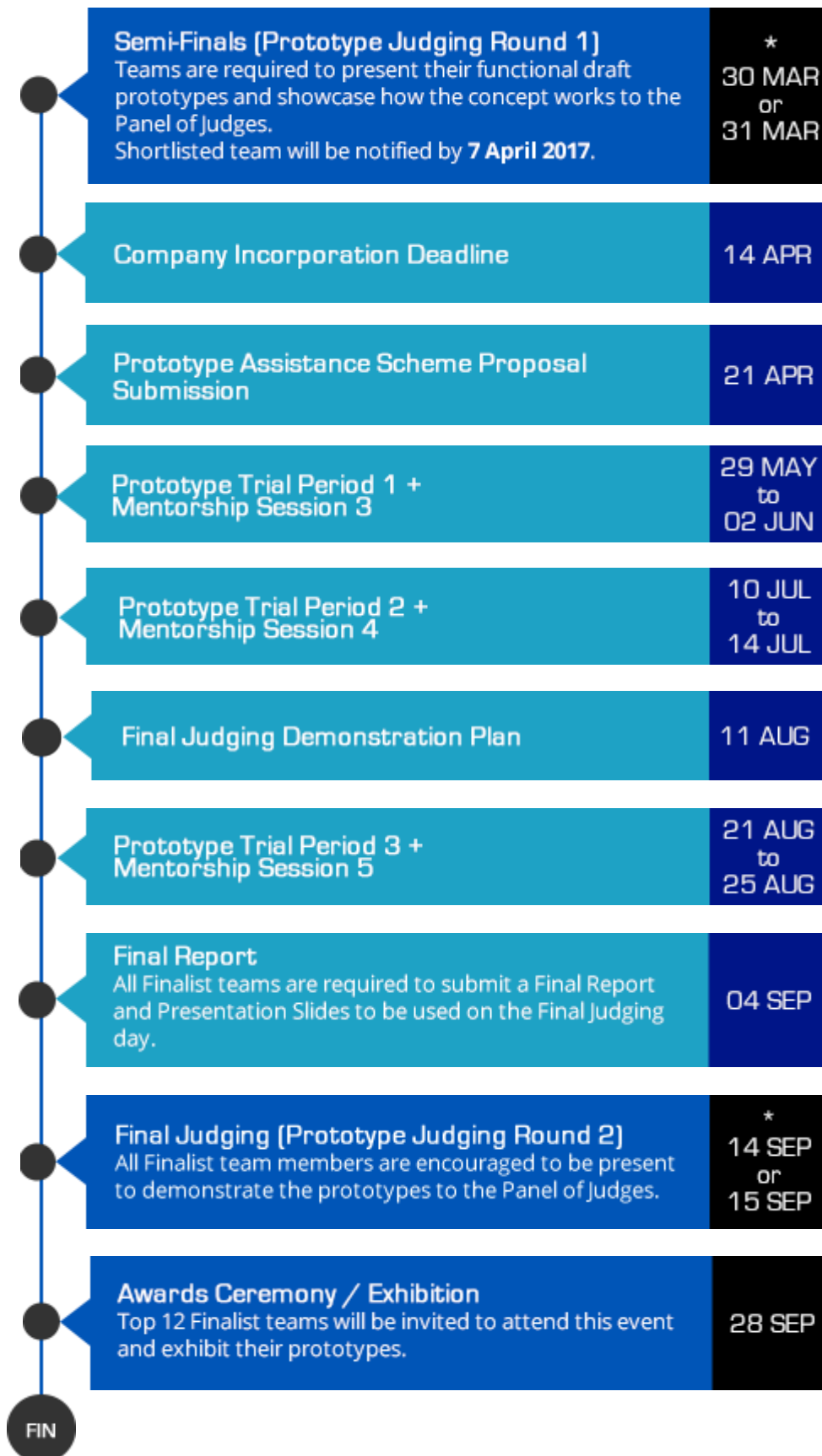
The safety aspect includes technologies to detect, prevent or possibly alert remote caregivers on anomalous activity related to potential health or safety issues.

The healthcare aspect includes technologies that perform non-invasive monitoring of various physiological and physical parameters. Another aspect would be to connect the elderly with healthcare professionals, support groups and caregivers for continued monitoring, maintain social interactions and to promote self-enrichment.

### 3 Key Dates & Information

The competition will run over a period of 13 months and will commence on 1 September 2016 and end on 28 September 2017.





\* Team's presentation / demonstration date and time slot will be scheduled on a first-come-first-serve reservation basis. All team members are encouraged to be present.

ST Electronics reserves the right to amend the venue, date and time or extend the deadline of the Challenge, if necessary.

#### A. Registration & Proposal Submission

Registration & Submission Opens: 1 September 2016 at 0000 hours (Singapore time)

Registration & Submission Deadline: 10 October 2016 at 2359 hours (Singapore time)

- Teams are required to register all team members and submit a Project Proposal via the competition website
- The Project Proposal shall adopt the suggested format and limits. Please download the template from [www.techfactorchallenge.com.sg/about?section=key\\_date](http://www.techfactorchallenge.com.sg/about?section=key_date)

#### B. Pre-Qualifying Round

Up to 30 teams will be shortlisted by the Panel of Judges upon review of their proposals to advance to the Qualifying Round of the Challenge and they will be informed by 21 October 2016. Teams that are not shortlisted will also be informed.

#### C. Tech Factor Challenge 2016 Aging-in-Place Workshop

Up to two representatives from each of the shortlisted 30 teams will attend the Tech Factor Challenge 2016 Aging-in-Place Workshop on 28 October 2016, 9.30am to 4pm, at Changi General Hospital, Integrated Building Level 3, Seminar Rooms 34 - 35. Speakers will share the perspectives of various users (i.e. elders, caregivers and clinicians), the gaps in the eldercare industry and its demands for technology products.

The Aging-in-Place Workshop serves to:

- Brief participants on important competition administrative matters (e.g. Submissions, Usage of IoT platform, Certification of Medical Devices, etc.)
- Educate participants on gaps in the eldercare industry and limitations of existing solutions, thus inspiring the creation of novel solutions
- Share the different perspectives (user, caregiver, clinician, geriatric robotics/tech expert & business), encouraging the conception of holistic solutions that cater to the requirements of many parties
- Evoke passion and a sense of responsibility to make a difference in the lives of elders and caregivers in the current generation and for future generations to come

#### D. Qualifying Round

Teams are to pitch their concept ideas to the Panel of Judges at IDA Labs located in National Design Centre on the 5 December 2016 or 6 December 2016, 9am to 5.30pm. The presentation should introduce the Team and their Project Proposal. All team members are encouraged to be present. Team presentation date and time slots will be scheduled on a First-Come-First-Serve reservation basis.

Planned Presentation Breakdown:

- 10 minute oral presentation with visual aids
- 5 minutes for questions and feedback
- 5 minutes for judges' inspection of the team's design or engineering models, if any

Up to 20 teams will be shortlisted to advance to the Semi-Finals of the Challenge and they will be notified by 16 December 2016. Teams that are not shortlisted will also be informed. A Seed Fund of S\$4,000 (Four Thousand Singapore Dollars) per team will be provided to the qualified teams to develop their draft prototype for semi-finals judging.

E. Team Progress Report

All Semi-Finalist teams are to submit a report by 20 March 2017, 2359 (Singapore Time), detailing the progress of their prototype development. The Team Progress Report shall adopt the suggested format and limits. Please download the template from [www.techfactorchallenge.com.sg/about?section=key\\_date](http://www.techfactorchallenge.com.sg/about?section=key_date)

F. Semi-Finals (*Prototype Judging Round 1*)

Semi-Finals will take place on 30 March 2017 or 31 March 2017, 9.30am to 5.30pm. Teams are required to present their functional draft prototypes and showcase how the concept works to the Panel of Judges. All team members are encouraged to be present to elaborate on the draft prototypes to the Panel of Judges. Team demonstration date and time slots will be scheduled on a First-Come-First-Serve reservation basis.

Demonstration of functional draft prototypes must accomplish the stated objective of the proposed solution in the Project Proposal and showcases clearly how the solution works. Focus will be on the solution's concept and functionality, although the presence of aesthetic considerations will be a bonus. In addition, a safety assessment of the design will be conducted. Please refer to the Prototype Judging Criteria at [www.techfactorchallenge.com.sg/about?section=judging\\_criteria](http://www.techfactorchallenge.com.sg/about?section=judging_criteria)

Planned Presentation Breakdown:

- 10 minute oral presentation with visual aids
- 10 minute demo & judges' inspection of functional draft prototype (focusing on concept)
- 5 minutes for questions and feedback

This component of the challenge will include a presentation to the Judges, an opportunity for the Judges to inspect the prototype, and opportunity for the Judges to interview the

team members on both the presentation and the prototype. Do note that the total duration of your prototype demonstration should not exceed 10 minutes, else teams will be penalized.

The top 12 Finalist teams will be shortlisted to advance to the Finals of the Challenge, and eligible to obtain subsidies from the Prototype Assistance Scheme, whereby teams may claim 70% of the prototype cost (purchases after scheduled date of Semi-Finals judging only), up to a maximum of S\$20,000 (Twenty Thousand Singapore Dollars) from the competition partner, SPRING Singapore. Shortlisted teams will be notified by 7 April 2017. Teams that are not shortlisted will also be informed.

#### G. Company Incorporation Deadline

Teams are to incorporate their company through [ACRA](#) by 14 April 2017, in order for the Prototype Assistance Scheme proposal to be approved.

#### H. Prototype Assistance Scheme Proposal Submission

All 12 Finalist teams are to submit their [Prototype Assistance Scheme Proposals](#) to SPRING Singapore by 21 April 2017, 2359 (Singapore Time) via the [Grant Portal](#).

#### I. Final Judging Demonstration Plan

All Finalist teams are required to submit a demonstration plan by 11 August 2017, 2359 (Singapore Time), detailing the sequence of the prototype features to be showcased during the Final Judging and the time taken for each demo. The total demonstration time should not exceed 15 minutes, else teams will be penalized. The demonstration plan shall adopt the suggested format and limits. Please download the template from [www.techfactorchallenge.com.sg/about?section=key\\_date](http://www.techfactorchallenge.com.sg/about?section=key_date)

#### J. Final Report

All Finalist teams are also required to submit a Final Report and Presentation Slides to be used on the Final Judging day by 4 September 2017, 2359 (Singapore Time). The Final Report will be an updated version of the team's Project Proposal and Progress Report and shall adopt the suggested format and limits. Please download the template from [www.techfactorchallenge.com.sg/about?section=key\\_date](http://www.techfactorchallenge.com.sg/about?section=key_date)

#### K. Final Judging (*Prototype Judging Round 2*)

Final judging will be held on 14 September 2017 or 15 September 2017, 9.30am to 5.30pm. All Finalist team members are encouraged to be present to demonstrate the prototypes to the Panel of Judges. Team demonstration date and time slots will be scheduled on a First-Come-First-Serve reservation basis.

Teams will demonstrate the functionality of the solution, by showcasing the solution's capabilities in accomplishing its stated objective in the Project Proposal and assessed in accordance to the judging criteria. Solutions are expected to be of quality of a deployable product, both functionality and aesthetic wise. Please refer to the Prototype Judging Criteria at [www.techfactorchallenge.com.sg/about?section=judging\\_criteria](http://www.techfactorchallenge.com.sg/about?section=judging_criteria)

Planned Presentation Breakdown:

- 10 minute oral presentation with visual aids
- 15 minute prototype demonstration
- 10 minute judges' inspection of the prototype and Team interview

This component of the challenge will include a presentation to the Judges, an opportunity for the Judges to inspect the prototype, and opportunity for the Judges to interview the team members on both the presentation and the prototype. Do note that the total duration of your prototype demonstration should not exceed 15 minutes, else teams will be penalized.

Results for the Final Judging will be announced at the Awards Ceremony / Exhibition.

#### L. Awards Ceremony / Exhibition

Awards Ceremony / Exhibition will take place on 28 September 2017, 10am to 2pm. The top 12 Finalist teams will be invited to attend this event and exhibit their prototypes.

The 4 winners of the Tech Factor Challenge 2016 will be crowned and the challenge will conclude on this date. After the awards ceremony, each of the finalist team will be allocated an exhibition booth to showcase their prototypes, gaining exposure to industry partners, potential investors, and possibly the media.



#### **4 Internet-of-Things Platform**

ST Electronics will be providing a Healthcare Internet of Things (IoT) cloud platform for participants who would like to 'plug-in' their prototypes into a ready platform. Using the IoT platform, vital signs monitoring, statistics and analytics can be viewed via one common tool. The IoT platform will support web and mobile apps developed by participants based on open standard. Participants are strongly encouraged to leverage on ST Electronics' Healthcare IoT platform.

Please download the full details on the competition IoT platform from the 'Internet-of-Things Platform' section on the Challenge website, [www.techfactorchallenge.com.sg](http://www.techfactorchallenge.com.sg)

For queries regarding the competition IoT platform, kindly email [tfc@stee.stengg.com](mailto:tfc@stee.stengg.com) with the subject title: 'TFC2016: IoT Enquiries'.

## 5 Prototype Judging Criteria

The judging panel will assess the solutions / prototypes based on the following criteria:

<b>Innovativeness &amp; Creativity</b>
Solution must be originally conceived / developed by the team. If external party/parties has/have also contributed to the product, they must be identified.
<b>Sustainability</b>
Ability to adapt to technological advancements within the product life-cycle.
<b>Scalability</b>
Potential to be scaled up to handle larger user base.
<b>Task Performance Ability</b>
Teams will demonstrate the use of their solution at the designated competition venue.
<ul style="list-style-type: none"> <li>• At minimum the solution must demonstrate its capability to: <ul style="list-style-type: none"> <li>a. Accomplish the solution’s stated objective in the Project Proposal and perform goal-oriented workflow actions: <ul style="list-style-type: none"> <li><u>Mobility Category</u> <ul style="list-style-type: none"> <li>○ System achieves its goals of improving mobility of user or assist in activities of daily living in a HDB home; and/or</li> <li>○ System achieves its goals of alleviating caregiver’s burden by assisting in caregiving task(s)</li> </ul> </li> <li><u>Smart H2 Category</u> <ul style="list-style-type: none"> <li>○ System achieves its goals of improving the lives of an elderly in a smart-safe home; and/or</li> <li>○ System achieves its goals of aiding an elderly in smart health &amp; wellness management; and/or</li> <li>○ System achieves its goals of enabling caregivers to remotely monitor, manage or support the elderly, reassuring caregivers of the elderly’s safety and well-being through use of technology; and</li> <li>○ System consists of software accompanying a hardware prototype</li> </ul> </li> </ul> </li> <li>b. Takes into consideration space constraints of HDB homes <ul style="list-style-type: none"> <li>○ Solution / Application fits into the layout of the designated venues</li> </ul> </li> <li>c. Takes into consideration of safety functions: <ul style="list-style-type: none"> <li>○ Activate safety features to end operation during malfunction or when misused</li> <li>○ Proper casing of wires and mechanical components, and waterproofing</li> </ul> </li> </ul> </li> <li>• Teams may propose any other innovative functions stated in their Project Proposals, which may be awarded bonus points</li> <li>• Systems with the ability to synchronize with competition IoT platform may be awarded bonus points</li> <li>• Time taken to perform tasks will be taken into consideration</li> </ul>
<b>Ease of Use</b>
User-friendliness (E.g. For less tech savvy elderly). Ease of technology uptake. User-configurable.
<b>Ergonomics &amp; User Experience</b>
Comfort of technology when worn or used. Intuitive design.
<b>Safety of Operation</b>
Static hazard considerations (E.g. Absence of sharp corners, exposed wires, waterproofing). Operational hazard considerations (E.g. Safety features to end operation when misused).
<b>Practicality &amp; Commercial Viability</b>
Potential economic impact of solution. Affordability of solution.
<b>Quality of Prototype Presented</b>
Robustness. Durability.

## 6 Rules & Regulations

IMPORTANT NOTICE: THESE TERMS AND CONDITIONS (“RULES”) SHALL GOVERN THE TECH FACTOR CHALLENGE 2016 (“COMPETITION”). BY YOUR ENTRY AND PARTICIPATION IN THE COMPETITION YOU AGREE TO BE BOUND BY THESE RULES. ST ELECTRONICS (“ORGANISER”) RESERVES THE RIGHT TO AT ANY TIME, CANCEL OR AMEND ALL OR ANY PART OF THE COMPETITION AND/OR THE RULES AS IT DEEMS FIT AND WITHOUT NOTICE. IT IS THE PARTICIPANTS’ RESPONSIBILITY TO KEEP THEMSELVES INFORMED AS TO ANY CHANGES TO THE COMPETITION AND/OR THE RULES. IN THE EVENT OF ANY QUESTION OR MATTER ARISING OUT OF ANY POINT THAT IS NOT EXPRESSLY PROVIDED FOR IN ANY OF THE RULES, THE DECISION OF THE ORGANISER SHALL BE FINAL.

IN THE EVENT OF ANY DISPUTES REGARDING THE RULES, THE CONDUCT OR RESULTS OF THE COMPETITION, OR ANY OTHER MATTER RELATING TO THE COMPETITION, THE ORGANISER’S DECISION SHALL BE FINAL AND UNCHALLENGEABLE AND NO CORRESPONDENCE OR DISCUSSION SHALL BE ENTERED INTO, COMMENT ISSUED, OR REASON GIVEN IN RESPECT OF ANY DECISION MADE BY THE ORGANISER.

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- II. Eligibility
- III. Registration
- IV. Senior Inventors Series
- V. Teams and Mentors
- VI. Team Leaders
- VII. Seed Fund and Prizes
- VIII. Intellectual Property
- IX. Media Usage
- X. Liability
- XI. Judging
- XII. General

### I. Introduction

1. The Competition will be held during the period from 1 Sep 2016 to 28 Sep 2017, both dates inclusive (“Competition Period”). The Organiser reserves the right in its sole discretion to cancel, modify or suspend the Competition or any part thereof at any time or re-schedule the dates of the Competition or extend the Competition Period.

2. THE ORGANISER MAY TERMINATE OR SUSPEND THE COMPETITION AT ANY TIME AT ITS SOLE AND ABSOLUTE DISCRETION. SUCH TERMINATION OR SUSPENSION WILL NOT GIVE RISE TO ANY CLAIM BY THE PARTICIPANT. THE ORGANISER RESERVES THE RIGHT NOT TO AWARD SEED FUND AND/OR PRIZE(S) IF IN ITS OPINION NONE OF SUBMISSIONS RECEIVED IS OF SUFFICIENT MERIT.

## II. Eligibility

1. The Competition is open to individuals, students and local<sup>1</sup> start-ups<sup>2</sup>. All Participants must be above the age of 18 years old as at the date of entry.
2. All ST Engineering staff (including staff from its subsidiaries) will not be eligible to participate in the Competition.
3. Teams sent by the Competition Partners (i.e. SPRING Singapore, Smart Nation Programme Office, Centre for Healthcare Assistive and Robotics Technology (CHART) at Changi General Hospital, Tan Tock Seng Hospital, Alexandra Health System, Singapore General Hospital, AWWA, Infocomm Development Authority of Singapore, SG Enable, ARTT Network and Singapore Industrial Automation Association) will not be eligible to participate in the Competition.

## III. Registration

1. Participants may enter the Competition as individuals or as teams of up to a maximum of 5 members per team. Individual Participants must be either Singapore citizens or Permanent Residents. In the case of Team Participants, at least half of the team members (at least 50%) should be Singapore citizens or permanent residents and must be involved in the technical design and development of the system.
2. Participants (individual or teams) have to register by submitting a Project Proposal via the registration page (“Registration Page”) of the official website of the Competition ([www.techfactorchallenge.com.sg](http://www.techfactorchallenge.com.sg)) and the same must be received by the Organiser on or before Monday, 10 Oct 2016 at 2359 hours Singapore time (“Entry Deadline”). Each submission must be accurate and complete in all respects and contain all required information as set out in the [submission instructions](#). Incomplete or late entries will not be entertained. The Organiser

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<sup>1</sup> Minimum 30% shares of the Company is owned by Singapore citizens or Permanent Residents.

<sup>2</sup> Less than 5 years of operations, with annual sales turnover of not more than S\$100 million and group employment of below 200 employees.

accepts no responsibility for any late, lost or misdirected submissions including delays and/or failure of any electronic or telecommunication systems, including but not limited to technical faults and/or network disruptions/congestions. The Organiser is not responsible for any technical or human error which may occur during the registration and/or administration of the Competition.

3. Teams with at least half of the members aged 55 years old and above can register as a team in the Senior Inventors Series, and indicate this in their registration form. Refer to the next section, IV. Senior Inventors Series, for more information.
4. Project Proposals with solutions that have received grants/subsidies from other programmes run by any private organisation or institutions or government agencies or statutory boards will be disqualified.
5. Project Proposals detailing the concept of existing solutions in the market or in other competitions will be disqualified.
6. Submission of an application does not guarantee the applicant the opportunity to participate in the Competition. The Organiser reserves the right in its sole and absolute discretion, to reject or refuse participation of any applicant without providing any reason whatsoever.
7. Upon successful registration, Participants will receive a confirmation email. In the event that a participant fails to receive a confirmation email or would like to clarify the team's application status, such queries may be directed via email to: [tfc@stee.stengg.com](mailto:tfc@stee.stengg.com)
8. Each Participant (whether individual or team) may only submit one application. Multiple submissions will lead to disqualification. For the avoidance of doubt and for illustration purposes, an individual who is a member of a team under a team application will not be permitted to submit an application as an individual and vice versa.
9. Participants may be required by the Organiser to provide further information and shall do so within the timeframe specified by the Organiser for the information to be furnished, failing which the applicant would be deemed to have withdrawn from the Competition.
10. The official language of the competition is English. All competition matters, including registration, correspondence, and project submission, etc must be completed in English.

11. As part of the registration process for the Competition, applicants will disclose personal information which shall constitute “Personal Data” for the purposes of the Personal Data Protection Act (“PDPA”) of Singapore. Each applicant is deemed to have consented to the Organiser’s collection, use and processing of the said Personal Data and the further consents to the receipt of marketing material from the Organiser and any of its related companies. The rules governing the Organiser’s collection, use and processing of Personal Data is set out in its Personal Data Policy, which may be found at: <http://www.stee.stengg.com/pdp.html>. Any applicant who wishes to opt out or has any queries about the Organiser’s collection, use and disclosure of the personal information may contact our Data Protection Officer, through the process set out in the Organiser’s Personal Data Policy.

#### IV. Senior Inventors Series

1. Participants aged 55 years old and above may enter the Competition as individuals or as teams of up to a maximum of 5 members per team in the Senior Inventors Series. In the case of Team Participants, at least half of the team members (at least 50%) should be aged 55 years old and above for the team to qualify for this Series.
2. Individual Participants must be either Singapore citizens or Permanent Residents. In the case of Team Participants, at least half of the team members (at least 50%) should be Singapore citizens or permanent residents and must be involved in the technical design and development of the system.
3. Registration in the Senior Inventors Series is to be indicated in the registration form from the start of the competition. No changes in series are allowed after the form has been submitted.
4. 1 out of the 4 prizes will be dedicated to a winning team from the Senior Inventors Series.
5. At least 5 teams must be registered in the Senior Inventors Series at the end of the registration period, on 10 Oct 2016 at 2359 hours Singapore time, for the Senior Inventors Series to continue running in the competition.
6. At least 3 teams in the Senior Inventors Series are required to be shortlisted in the subsequent Competition Rounds, i.e. Pre-Qualifying Round, Qualifying Round and Semi-Finals, for the Senior Inventors Series to continue running in the competition.

7. Failing to meet the minimum number of teams as stipulated in clauses 2 and 3 of this section, the Senior Inventors Series will be removed from the competition and the prize dedicated to the Senior Inventors Series will be allotted back to the Open Series. Additionally, teams in the Senior Inventors Series still in the running for the competition will be reassigned to the Open Series.

#### V. Teams & Mentors

1. All teams will be guided and supervised by Mentor(s) from ST Electronics or from a Competition Partner. The team's assigned Mentor(s) provide(s) technical and/or business development guidance to the team. A Mentor may be assigned to more than one team.
2. Interdisciplinary teams are encouraged and multiple educational institutions may join together to form a single team.
3. Every team member must present their contribution towards the Project.

#### VI. Team Leaders

1. Each team is required to nominate a team leader. The team leader will be the main contact person and representative of the team in the competition. All communication between ST Electronics and the team will be through the team leader and by email, telephone and/or post to such contact details as are provided to ST Electronics at Registration.
2. All team members are required to be registered at the Registration Page when submitting the Project Proposal. No changes in the team members are allowed after the form has been submitted.

#### VII. Seed Fund, Prototype Fund & Prizes

##### 1. Seed Fund

At the end of the Qualifying Round, up to 20 Semi-finalists (individuals or teams) will be selected. Upon the announcement of the Semi-finalists, each shall receive funding ("Seed Fund") of S\$4,000 (Four Thousand Singapore Dollars) to develop the draft prototype for the Semi-Finals.

Shortlisted teams or Participant(s) in the Competition may be eligible to select and receive assistance from 1 of the 4 participating Prototyping Houses in the Competition. No change in the choice of Prototyping Houses is allowed after the [selection form](#) has been submitted.

## 2. Prototype Fund

At the end of the Semi-Finals, up to 12 Finalists (individuals or teams) will be selected. Upon the announcement of the Finalists, each shall be granted approval to receive subsidies ("Prototype Fund") of 70% of total prototyping cost (purchases after the date of the Semi-Finals only), up to a maximum of S\$20,000 (Twenty Thousand Singapore Dollars) through SPRING Singapore's Prototype Assistance Scheme to develop the final prototype for submission at the end of the competition period.

Important Note: To receive Prototype Assistance Scheme subsidies, Team(s) or Participant(s) must have submitted their [Prototype Assistance Scheme Proposals](#) to SPRING Singapore by 21 April 2017 via the [Grant Portal](#). In addition, the 12 Finalists must [incorporate a company](#) that is dedicated to the development of the solution stated in their Project Proposal by 14 April 2017.

## 3. Prize Money

Up to a total of S\$300,000 will be awarded to the 4 winners of Tech Factor Challenge 2016:

Open Series - 3 winners  
Senior Inventors Series - 1 winner



For each winner,

•S\$25,000\* Cash Prize awarded upfront

Upon securing:

i.S\$250,000 Annual Revenue; or

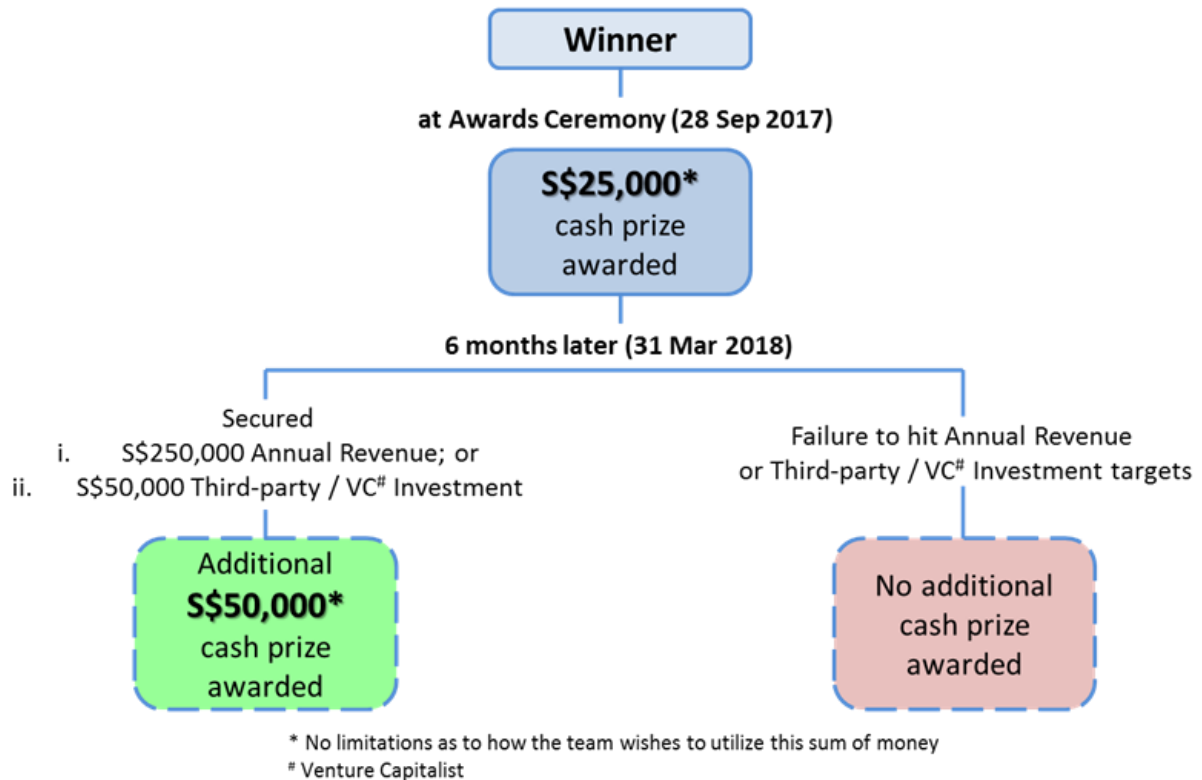
ii.S\$50,000 Third-party / VC # Investment within 6 months following the Competition Period (including any extension thereof)

•An additional S\$50,000\* Cash Prize to be awarded

\* No limitations as to how the team wishes to utilize this sum of money

# Venture Capitalist





*Illustration 1: Flowchart detailing process to secure prize money*

4. Seed Fund and Prizes shall be credited by way of a telegraphic bank transfer to the bank account nominated by the individual Participant or Participant team as notified to the Organisers by the individual or the team leader. The team leader will be responsible and accountable for the distribution of funds within his/her team.
5. Prototype Fund shall be reimbursed via the Prototype Assistance Scheme by submission of receipts (after the date of the Semi-Finals) from vendors or suppliers used for prototype development. The team leader will be responsible and accountable for all collection and submission of receipts by his/her team or company. The reimbursement shall be credited by way of a telegraphic bank transfer to the bank account nominated by the individual Participant or participating team as notified to the Organisers by the individual or the team leader. A lead time of at least one (1) month is expected for processing of the reimbursement.
6. Participants are advised that there may be tax implications in relation to the Participants award and receipt of the Competition Seed Fund, Prototype Fund and/or Prize, for which they shall be solely liable for any and all taxes payable.

## VIII. Intellectual Property (IP)

1. By registering for the Competition and submitting a Project Proposal, each Participant affirms that the Proposal is his/her/the team's original work and that the Participant(s) have the necessary rights to submit the Project Proposal. The Participant(s) further warrant that the submission does not violate any law or regulation or any rights of any third party. The Organiser reserves the right to disqualify any Participant that it believes, in its sole and absolute discretion, that the Project Proposal or any part thereof infringes upon or violates the rights of any third party. Participants shall hold harmless the Organiser and their respective officers against any claims or costs relating to the breach of this term.
2. ST Electronics shall have the first right to refusal for working with any participants on potential commercialisation of any IP generated during this Competition. IP rights will remain with the participants.
3. Any false information provided within the context of the Competition by any Participant or non-compliance with any of the Competition Rules, or the like, may result in the immediate elimination of the Participant from the Competition.

## IX. Media Usage

1. By entering this Competition, Participants consent to the use of their personal data by the Organiser for the purposes of administrating and conducting the Competition and any post-Competition activities and/or publicity. Participants agree to take part in any publicity relating to the Competition as well as to the use of their names and photographs in such publicity.
2. Participants acknowledge and agree to participate and cooperate in all media and promotional activities relating to the Competition, including but not limited to being interviewed, photographed and videoed at any time during the Competition Period. Participants grant the Organiser no-cost, world-wide, perpetual, irrevocable and non-exclusive license to use, reproduce, display and/or create derivative works of such footages and photographs in all media worldwide, including online social media and networking websites without compensation (unless prohibited by law) and without prior inspection or approval. Participants agree to execute additional specific consents to such use if asked to do so.

## X. Liability

1. Whilst reasonable precaution will be taken by ST Electronics and the Competition Partners to ensure safety of all the Participants, each Participant acknowledges and agrees that his or her participation in the Competition is at his or her own risk. Upon registration for the Competition, the Participant agrees to defend, indemnify and hold harmless. ST Electronics, its subsidiaries/ associated companies and the Competition Partners, including their respective officers, employees, contractors and agents, from and against any and all claims, causes of action, damages, obligations, losses (including any loss of opportunity), liabilities (including negligence), personal injuries, costs or debt, and expenses (including attorneys' fees and costs) and all amounts paid in settlement arising from or relating to, whether directly or indirectly, special or consequential, to the Participant's participation in the Competition. ST Electronics and/or the Competition Partners may assume the exclusive defense and control of any matter for which Participants have agreed to indemnify ST Electronics and the Competition Partners. Participants agree to assist and cooperate with ST Electronics and the Competition Partners in the defense or settlement of any such matters.
2. Each Participant is required to take all appropriate safety measures including obtaining appropriate insurance coverage (if necessary) when designing and developing the prototype and conducting the prototype trials.

## XI. Judging

1. All submitted entries shall be judged by a panel of judges consisting of representatives from ST Electronics and its related companies, technical and/or business experts from Institutes of Higher Learning, industry, and representatives from SPRING Singapore, Smart Nation Programme Office, Centre for Healthcare Assistive and Robotics Technology (CHART) at Changi General Hospital, Tan Tock Seng Hospital, Alexandra Health System, Singapore General Hospital, Infocomm Development Authority of Singapore, ARTT Network and Singapore Industrial Automation Association ("Judges").
2. The Judges' decisions in all matters relating to the Competition, including eligibility of the participants and the selection of the winners, will be final and the Judges shall not be obliged to entertain any correspondence or queries in relation to the same. The Judges shall not be obliged to select a winner if, in their view, none of the Project Proposals is of sufficient merit. Participants are advised to understand the judging criteria well to improve their chances of success.

3. ST Electronics, the Judges, and the Competition Partners are not obliged to adopt any of the solutions that are developed under this Competition. They may, in their sole discretion, choose to further develop any Project Proposals with any of the teams participating in the Competition.
4. The Organiser reserves the right to disqualify entries which, in their sole discretion, are deemed irrelevant, offensive, and/or do not comply with these Rules. The Organiser reserves the right to disqualify or replace any winner if he or she is found to be in breach of these Rules or otherwise disqualified.
5. Participants shall not enter their ideas or any part of the Project Proposal (including software, prototypes or products) in another competition or exhibition until 30 days after the Competition Period (including any extension of the Competition Period). In the event that a team would like to do otherwise, an appeal to the Organiser must be made and is subjected to approval from the Organiser on a case-by-case basis. Failure to comply will result in the Participant's disqualification from the Competition.
6. From the moment of registration for the Competition, all Participants acknowledges and agrees to be physically present for all meetings, presentation/pitching sessions, prototype testing trial sessions, judging and award ceremony as scheduled by the Organiser ("Events"). At least 1 team member is to be present at any Event to represent the team. However, all team members are encouraged to attend and participate. In the event that the Participant(s) cannot be present, a valid reason must be given as early as possible. Failure to comply may result in the Participant and/or the team being disqualified from the Competition.
7. Participant(s) or team(s) that are disqualified from the Competition will be removed from the Competition immediately and will have to refund the full amount of any funding (seed fund, prototyping fund and prize money) awarded at any point during the course of the Competition (including any extended period), to the Organiser.

## XII. General

1. These Rules shall constitute the entire agreement between the Organiser and the Participant and supersede all prior representations, arrangements, understandings and agreements between the Parties (whether oral or written) relating to the subject matter herein contained.

2. These Rules shall be construed, governed and interpreted in all respects in accordance with the laws of the Republic of Singapore and the Parties agree to submit all disputes and claims in respect to these Rules to the jurisdiction of the Courts of the Republic of Singapore.
3. Participants shall not be entitled to assign any of the rights and obligations under these Rules without the express written consent of the Organiser.
4. Nothing in these Rules shall operate so as to create a partnership or joint venture of any kind between the Parties.
5. All applicable taxes and/or fees on prizes, seed fund and all expenses related to acceptance and use of prizes, foreign or national, are the sole responsibility of prize recipients. The Organiser reserves the right to withhold payments as required by law.