

## Partnership Research Programme

### Application Form

#### General

1. Please read the '**Guide to Filling in the Application Form for the Partnership Research Programme (PRP)**' ("**Guide**") before completing this form.
2. Applications should be submitted by the lead applicant (an R&D Centre or a designated local public research institute). Applications submitted by individuals will not be accepted.
3. The lead applicant should fill in the form.
4. If an applicant wishes to apply for more than one project (as in the case of cluster projects), it should complete one form in respect of each project.
5. Please complete this form in either Chinese or English (with the exception of certain sections for the purpose of uploading to the Innovation and Technology Fund (ITF) webpage in future as necessary).
6. Please attach annex(es) if space provided in the form is insufficient. Other information in support of the application, e.g. diagrams, photos, etc., is welcomed. Where necessary, the Innovation and Technology Commission (ITC) will require the lead applicant to produce the originals of the supporting documents for verification.
7. All information provided in the form will be used for processing the application and for related purposes, e.g. project monitoring, statistical analysis, etc. It may be disclosed to other bureaux/departments of the Government of the Hong Kong Special Administrative Region ("the Government") or third parties, if such disclosure is necessary.
8. Applications must be submitted to the ITF Secretariat electronically through the Innovation and Technology Commission Funding Administrative System (<https://itcfas.itf.gov.hk/>).

9. In the event of any inconsistency between this form and the Guide mentioned in paragraph 1 above on the one hand, and the agreement to be signed between the Government and the lead applicant/industry co-applicant in relation to the approved project on the other, the latter will prevail.

10. This form is divided into the following sections: -

Part A	The Applicant
Part B	The Project
Part C	Assessments
Part D	Attachments for the Application
Part E	Declaration


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Project Title	(Chi) 移動機器人的優化
	(Eng) Optimization of the Mobile Robot
Lead Applicant <sup>Note</sup>	(Chi) 城市大學
	(Eng) City University of Hong Kong
Industry Co-Applicant	(Chi) 香港有限公司
	(Eng) The Hong Kong Company Limited

Note:

1. The lead applicant must either be:

- an R&D Centre; or
- a designated local public research institute (viz. local universities, self-financing degree-awarding institutions registered under the Post-Secondary Colleges Ordinance (Cap. 320), Hong Kong Productivity Council, Vocational Training



*Council, Clothing Industry Training Authority and Hong Kong Institute of Biotechnology).*

- 2. For projects under the technology areas of the R&D Centres, the lead applicant must be the relevant R&D Centre.*

## Part A The Applicant

### I. Information on Lead Applicant

The lead applicant should fill in this form and provide all necessary information with the consent of parties concerned.

#### Lead Applicant

- Automotive Platforms and Application Systems R&D Centre (APAS)
- Hong Kong Applied Science and Technology Research Institute (ASTRI), designated as the R&D Centre for Information and Communications Technologies
- R&D Centre<sup>^</sup>**
  - Logistics and Supply Chain MultiTech R&D Centre (LSCM)
  - Nano and Advanced Materials Institute (NAMI)
  - Hong Kong Research Institute of Textiles and Apparel (HKRITA)
  - Local university\*/self-financing degree-awarding institution registered under the Post-Secondary Colleges Ordinance (Cap. 320) (please specify):  
\_\_\_\_\_
- Designated Local Public Research Institute<sup>^</sup>**
  - Hong Kong Productivity Council (HKPC)
  - Vocational Training Council (VTC)
  - Clothing Industry Training Authority (CITA)
  - Hong Kong Institute of Biotechnology (HKIB)

<sup>^</sup> Please select (by putting in '✓') where appropriate.

\* Including all University Grants Committee (UGC)-funded institutions

## Key Contact Person(s) Assigned by the Lead Applicant <sup>Note</sup>

### 1. Project Coordinator – on technical matters

Name	(Chi)	陳小明博士
	(Eng)	Dr Siu-ming CHAN
Post Title	R&D Director	
Department/Unit	R&D Engineering Department	
Address	(Chi)	香港九龍創新及科技路 100 號
	(Eng)	100 I&T Road, Kowloon, Hong Kong
Tel	852-3123 3456	Fax 852-3456 3789
E-mail	smchan@city.hk	

### 2. Administrative Coordinator – on administrative matters

Name	Dr Tai-ming CHAN	
Post Title	Senior R&D Engineer, R&D Engineering Department	
Address	100 I&T Road, Kowloon, Hong Kong	
Tel	852-2123 2456	Fax 852-2456 2789
E-mail	dmchan@city.hk	

*Note: Please provide details of two key contact persons, one to be responsible for overseeing the carrying out of the R&D project (e.g. technical matters) and the other to be responsible for handling administrative matters. The lead applicant may choose to designate one person to be in charge of both.*

## II. Information on Industry Co-Applicant

### Industry Co-applicant <sup>Note</sup>

Company Name	(Chi)	香港有限公司
	(Eng)	Hong Kong Company Limited
Name of Contact Person	Mr SL LEUNG	
Post Title	CEO	
Address	Room 123, 1/F, Hong Kong Building	
	101 Company Road, Kowloon, Hong Kong	
Tel	852-3406 2549	Fax 852-3641 1018
E-mail	slleung@hkcl.com	
Webpage	<a href="http://www.hkcl.com">http://www.hkcl.com</a>	

Note: The industry co-applicant can either be:

- a company incorporated in Hong Kong under the Companies Ordinance (Cap. 622) and unless the lead applicant is a local university, should generally not be owned more than 50% by the lead applicant; or
- an industry support organisation, trade and industry association or professional body which has the legal capacity to enter into contracts.

### III. Information on Supporting Party(ies)

#### Supporting Party(ies) <sup>Note</sup>

		Name	Contact Person (Position, Department/Unit, Tel No, Fax No and E-mail)
In Hong Kong	Government departments/ public bodies (官)	Building Department	Ir K T LEE, Building Engineer (Tel: 8888 8888 Email: xxxxxxxxx)
	Companies/ industry or trade associations (產)	Hong Kong Company Limited	Mr SL LEUNG, CEO (Tel: 3406 2549 Email: xxxxxxxxx)
	Local universities (學)		
	Other research institutes (研)		
	Others (e.g. charitable trusts or prominent personalities in the field)		

*Note: Please indicate (by putting in \*) the implementing organisation(s) of the project and provide supporting document(s).*

		Name	Contact Person (Position, Department/Unit, Tel No, Fax No and E-mail)
Outside Hong Kong	Government departments/ public bodies (官)		
	Companies/ industry or trade associations (產)		
	Universities (學)		
	Other research institutes (研)		
	Others (e.g. charitable trusts or prominent personalities in the field)		

Note: Please provide supporting document(s).

Supporting/reference document(s) is/are attached.



## Part B The Project

### I. Key Project Details

1. Project Title :	<u>Optimization of the Mobile Robot</u>
2. Total Project Cost (HK\$'000):	<u>1,150.000</u>
Amount of Industry Sponsorship (HK\$'000):	<u>575.000</u>
Percentage of Industry Sponsorship vs. Total Project Cost (%):	<u>50%</u>
Amount of Other Sources of Financial Contribution (HK\$'000):	<u>0.000</u>
Percentage of Total Financial Contribution vs. Total Project Cost (%):	<u>0%</u>
Amount of ITF Funding Sought (HK\$'000):	<u>575.000</u>

Note:

1. For the differences between industry sponsorship and other sources of financial contribution, please refer to Part B.I(D) of the Guide.
2. In general, the industry co-applicant should contribute at least 50% of the total project cost. For projects undertaken by the R&D Centres, exceptional approval needs to be sought from ITC if the contribution from the industry co-applicant amounts to at least 30% but less than 50% of the total project cost. The IP rights may be owned by the industry co-applicant if it has contributed at least 50% of the total project cost within the Project Period. If not, the IP rights should be owned by the lead applicant. As regards the IP benefit sharing and related arrangement, it will be subject to negotiation among the parties concerned and will be set out in the project agreement.
3. For further details concerning the IP rights arrangement, please refer to Part C.VI of the Guide.

### 3. Schedule of the Project Period

Commencement Date (dd/mm/yyyy):	01 / 03 / 2021
Completion Date (dd/mm/yyyy):	29 / 02 / 2024
Duration of the Project Period (no. of months, max. 36 months):	36

### 4. Related Information

(a) Whether previous research has been done in relation to the proposed R&D work?

Yes.

Please list previous projects and funding obtained, e.g. ITF, UGC/Research Grants Council (RGC) (in particular the Areas of Excellence (AoE) Scheme, Theme-based Research Scheme (TRS) and Collaborative Research Fund (CRF) which may have good potential for migration to mid-stream/downstream research), Environment and Conservation Fund (ECF), etc.

Project Reference No.	Project Particulars	Funding Obtained

No.

(b) Has there been/will there be any attempt to seek funding support for this project from sources other than the ITF?

Yes. (Please provide details.)

No.

## II. Brief Description of Project Proposal

### 1. Technology Area<sup>^</sup>

- Advanced Manufacturing/Process Development
- Automotive Parts and Accessories
- Biotechnology
- Chinese Medicine
- Electronics
- Energy
- Environmental Protection
- Information and Communication Technologies
- Logistics and Supply Chain Management
- Nanotechnology and Materials Science
- Testing and Certification
- Textiles/Clothing/Footwear
- Others (please specify) \_\_\_\_\_

<sup>^</sup> Please select ONLY ONE (by putting in '√') where appropriate. The application will be assigned to the corresponding Technology Subgroup in the ITF Research Projects Assessment Panel for consideration according to the selected technology area. Details of the Technology Subgroups are available at <https://www.itf.gov.hk/en/funding-programmes/itf-research-projects-assessment-panel/index.html>.

Please note that project proposals falling under the technology areas of the R&D Centres should be submitted via the appropriate Centre.

**2. Industrial Sector** *(This information is collected for statistical purpose)^*

- Banking/Financial Market/Fund Management/Insurance
- Biotechnology
- Chinese Medicine
- Construction
- Electrical and Electronics
- Energy
- Environmental
- Food and Beverage
- General (Cross Sectors)
- Import and Export Trade
- Information Technology
- Logistics and Communication Technologies
- Manufacturing Engineering
- Materials
- Medical Equipment
- Precision Engineering
- Printing and Publishing
- Professional Services
- Real Estate/Property Management
- Telecommunications
- Testing and Certification
- Textiles/Clothing/Footwear
- Tourism
- Transportation
- Wholesale and Retail
- Others (please specify)

*^ Please select (by putting in '√') where appropriate.*

**3. Project Summary** (no more than 200 words)

(Please provide a summary of the project objectives, R&D methodology involved, impact and benefits, etc.)

(Chi)

我們的研究團隊研發了一款移動機器人，用於遠程檢查和監控在建築物內的情況。第一目標擴展現有機械人的性能，籍此加快將技術研究轉用到現場實用。第二目標是開發一個自動化修復過程，並且將這個新的子系統結合到現有的機械人中。研發內容包括開發一款可互動的機器手，……。

(Eng)

Our research team has developed a mobile robot to remotely perform inspection and surveillance of indoor condition of buildings in Hong Kong. The first objective is to extend the performance of existing robots, thereby accelerating the transfer of technical research to the field. The second objective is to automate a repair process and to integrate this new sub-system into the existing robot prototype. The research and development also involves an interactive arm .....

**4. Project Deliverables** (no more than 300 words)

(Please provide a brief description of the R&D output in both qualitative and quantitative terms and the timeframe required for achieving it.)

- 1) An interactive arm equipped with Smart mechanism: to install parts and components in specific requirement.
- 2) The overall size of the mobile robot is optimized, and the target size is 1m x 1m x 1m.

## 5. Wider Total Effect

Please provide details on whether this project is related to other projects (ITF or non-ITF; previous or on-going) to create synergy and a wider total effect – concept of cluster projects, e.g. three different projects to combat water pollution at a certain location.

n/a
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## 6. Location of R&D work

Please provide details on the geographical location(s) where the R&D work will be undertaken: local vs. outside Hong Kong with the name(s) and place(s) of the research institute(s).

Location	Name/Place of Research Institute	Percentage of R&D Work to be Undertaken <sup>Note</sup>	Percentage of R&D Expenditure (i.e. net of overheads) to be Spent <sup>Note</sup>
Local	City University of Hong Kong	100%	100%
Outside Hong Kong			

Note: The majority of the R&D work of a project should be conducted within the territory of Hong Kong. However, given the close ties between Hong Kong and the Mainland, up to 50% of the R&D work of the project can be conducted (and relevant expenditure incurred) in the Mainland. Where certain R&D tasks need to be conducted outside Hong Kong (other than the Mainland), prior approval from ITC must be sought with justifications (e.g. countries/provinces/cities/overseas research institutes which have entered into technology collaborative agreements/Memorandum of Understanding with the Government or local universities/R&D Centres).

## 7. Project Milestones

Please set out the key milestones pertaining to the R&D deliverables to be achieved at different stages of implementation. For the first progress report, there may not be significant progress in terms of R&D deliverables but we anticipate that all preparatory work (e.g. recruitment of staff, procurement of equipment, etc.) will be completed by then.

Proposed Commencement Date: 01 / 03 / 2021

	<b>Calendar Date (dd/mm/yy)</b>	<b>Work Progress/R&amp;D Deliverables (in quantity and quality where possible, with start/end date of each item; excluding administrative activities such as staff recruitment and equipment procurement)</b>
1 <sup>st</sup> Project Milestone: (12 <sup>th</sup> month from commencement)	28/02/2022	To design and fabricate of the interactive arm
2 <sup>nd</sup> Project Milestone: (24 <sup>th</sup> month from commencement)	28/02/2023	To integrate the interactive arm with the mobile robot
3 <sup>rd</sup> Project Milestone: (36 <sup>th</sup> month from commencement)	29/02/2024	To conduct the on-site testing of the mobile robot and optimization and modification of the mobile robot

Proposed Completion Date: 29 / 02 / 2024



**I. Innovation and Technology Component**

*Please refer to the assessment framework in Part C of the Guide.*

1. Please provide details on how the project pertains to applied research (e.g. mid-stream or downstream research, background leading to the project, rationale and innovation of the proposed R&D, comparative analysis and supporting data, etc).

It is a known trend that the number and variety of robotic systems deployed for field work is increasing worldwide. Compared to factory automation robots, these field robots generally operate in semi-structured or sometimes unknown environment. They are mostly purpose-built for specific tasks, with their development project mainly commissioned by the relevant industry with university collaborations. In Switzerland, there are multiple project phases over several years that developed inspection robots for equipment such as steam chests, generators, and boiler tubes inside power plants [1]. Other examples are inspection robots for power transmission lines by a hydroelectricity utility provider in Canada [2] and for marine vessels by a European industry and university collaboration [3]. Apart from inspection tasks there are also mobile robots designed for maintenance tasks, such as window cleaning for building [4]. Still, there are many potential applications of mobile robots that can be explored.

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2. Please provide details from the following angles as fit:

Area	Details
(a) Whether the project will give rise to new technologies or products (global/regional/ Hong Kong)	<p>The successful implementation of this project will create significant technological advancement not only for industry.</p> <p>.....</p>
(b) Whether the project will enhance quality (e.g. capacity, reliability, speed, etc.)	<p>The overall repair session can benefit from reduced manpower, improved time efficiency, and more cost savings.</p> <p>.....</p>
(c) Whether the project will render production or application cost more competitive	<p>The development allows the company to potentially save more than HK\$500,000 annually for surveillance and maintenance.</p> <p>.....</p>
(d) Others	

## II. Technical Capability

1. Please provide details on the viability of the proposal from the technical perspective, including R&D methodology to achieve each milestone, details of each milestone and the responsible party(ies), preliminary research results and supporting data, and the targeted results.

The development of interactive arm .....

Additional Information: n/a

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2. Please provide details on the competence of the Project Coordinator and the research team by providing background, qualifications, experience, track record in previous research (especially ITF), recognition (locally and outside Hong Kong), etc. Please state the role of key members/involved parties in implementing the project. Please include any other information you consider useful to support the application (e.g. industry and academic awards won in the past, endorsement of outstanding experts in the field, etc.).

Project Coordinator	<p>Dr Siu-ming CHAN (Please see CV in Annex 2.)</p> <ol style="list-style-type: none"> <li>1. Manage the project including the technical, scientific and budget issues, monitor the project progress and supervise the team to develop the prototype robot for the specific objectives;</li> <li>2. Validate the experimental data and provide advice on the technical and scientific aspects involved;</li> <li>3. Coordinate and meet with the key members of the collaborating company on the updated progress of the development and gather the advice and suggestion from the collaborating company</li> </ol>
Research Team	<p>Dr XX LI (Please see CV in Annex 2.)</p> <ol style="list-style-type: none"> <li>1. Design and development of the control method;</li> <li>2. Investigate the mechanical design of the robot;</li> <li>3. Provide support on the testing of the mobile robot</li> </ol> <p>Dr XX HO (Please see CV in Annex 2.)</p> <p>Arrangement and provide support on the onsite testing of the mobile robot</p> <p>Dr XX CHEUNG (Please see CV in Annex 2.)</p> <p>Analysis of the indoor condition and provide suggestions on the results obtained from the on-site testing</p>

Note: Please indicate (by putting in \*) where the research team member(s) is/are the member(s) of the project steering committee.

### III. Financial Considerations

#### A. Projected Expenditure

Please list all the expenditure items to be incurred within the project period and provide breakdown of each item in the following sections.

Summary:

	<b>Cost (HK\$'000)</b>
(i) Manpower	500.000
(ii) Equipment	500.000
(iii) Other Direct Costs	0.000
(iv) Administrative Overheads (where applicable)	錯誤! 找不到參照來源。
<b>Total Project Cost (A):</b>	<b>1,150.000</b> <b>(i)+(ii)+(iii)+(iv)</b>

**(i) Manpower**

Please provide details of members in the team in descending order (i.e. more senior members first).

Position/ Rank <sup>Note</sup>	No. Required	Duration (months)	Monthly Rate or Equivalent (HK\$'000)	Total (HK\$'000)	Job Description
Research Fellow	1	20	15.000	300.000	See Annex 3 "Budget"
Research Assistant	1	20	10.000	200.000	See Annex 3 "Budget "
<b>Sub-total A(i):</b>				<b>500.000</b>	

- I/We confirm that the project team members listed in the table above are not existing staff of the lead applicant and industry co-applicant. Any student(s) to be engaged for this project will not be double-funded by both the lead applicant and the ITF for carrying out the same set of responsibilities.
- I/We confirm that the manpower cost covers no other than the salary of project staff, including employer's mandatory contribution to the Mandatory Provident Fund (MPF), contract gratuities, annual salary adjustment (excluding increments and promotions) and general fringe benefits (e.g. medical) in accordance with the established mechanism of the lead applicant.

*Note: Please indicate (by putting in \*) for Deputy Project Coordinator (if applicable).*

Additional Information:

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## (ii) Equipment

Equipment to be Used <sup>Note</sup>	Quantity	Unit Cost (HK\$'000)	Total (HK\$'000)	Justifications (e.g. why essential for the research, reasons why existing equipment cannot be used/shared for the project; how equipment will be treated after completion of the project etc.)
Assembly Equipment	3	100.000	300.000	See Annex 3 "Budget "
Testing Equipment	2	100.000	200.000	See Annex 3" Budget"
<b>Sub-total A(ii):</b>			<b>500.000</b>	

- I/We confirm that the equipment will remain under the ownership of the lead applicant for at least two additional years after the project completion or termination of the project agreement.

### Note:

- Please indicate (by putting in #) where the equipment is estimated to cost HK\$500,000 or above per item.*
- Please indicate (by putting in @) where the equipment is to be covered by in-kind sponsorship/contribution from the lead applicant or industry co-applicant or supporting organisation(s).*
- Only cost of new equipment for implementing the project can be charged to the ITF.*

Additional Information:

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### (iii) Other Direct Costs

Item <sup>(Note)</sup>	Quantity	Unit Cost (HK\$'000)	Total (HK\$'000)	Justifications
<b>Sub-total A(iii):</b>			<b>0.000</b>	

- I/We confirm that for all travelling, they are at reasonable cost (e.g. economy class fare only if applicable) and are of direct relevance to the project and account for no more than 5% of the total amount of funds requested from ITF; the number of participant is not more than one person from the project team, members of which shall be from the lead applicant or the implementing organisation(s) (if applicable).

Note:

1. Please indicate (by putting in <sup>@</sup>) where the consumables are to be covered by in-kind sponsorship/contribution from the lead applicant or industry co-applicant or supporting organisation(s).
2. Project funds cannot be used to cover general administration and office expense. Please refer to the list of unallowable cost items in Part C of the Guide.
3. Services provided by the lead applicant (e.g. inter-departmental charges) are generally not allowed to be charged to the ITF. ITC may consider approving the charging of such services provided that they are (a) justifiable on grounds of operational efficiency, reliability and quality of service, etc.; (b) not general or administrative support in nature; and (c) charged at cost. The lead applicant should state clearly which services involve inter-departmental charges (if any), provide justifications and make declarations as those set out in (b) and (c).

Additional Information:

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**(iv) Administrative Overheads** *(in the form of cash)* <sup>Note</sup>

Item	Total (HK\$'000)
Administrative Overheads met by Industry Co-applicant	75.000 (50)%
Administrative Overheads met by ITF	75.000 (50)%
<b>Sub-total A(iv):</b>	<b>150.000 (100)%</b>

*Note: The administrative overheads to be included in the project budget can be at most 15% of the approved total project cost (net of overheads). The industry co-applicant is required to pay its share of the administrative overheads proportional to its contribution to the project while ITF will contribute the remaining.*

## B. Industry Sponsorship/Other Sources of Financial Contribution

Please list all the industry sponsorship and other sources of financial contribution to be received within the project period, and provide breakdown of each item in the following sections.

Summary:

<b>Category</b>	<b>Amount (HK\$'000)</b>
(i) Industry Sponsorship	575.000
(ii) Other Sources of Financial Contribution	0.000
<b>Total (B):</b>	<b>575.000 (i)+(ii)</b>

**(i) Industry Sponsorship** <sup>Note</sup>

Name of Sponsor	Cash Contribution (HK\$'000)	In-kind Sponsorship		Total (HK\$'000)
		Details (description of equipment/consumables and basis of conversion to cash value)	Cash Equivalent (HK\$'000)	
Hong Kong Company	575.000			575.000
<b>Sub-total B(i):</b>				<b>575.000</b>

*Note: ITF funding is released on a matching basis, i.e. for every dollar or in-kind contribution to be actually made by the industry co-applicant, this will be matched by ITF.*

## (ii) Other Sources of Financial Contribution

Please set out other sources of financial contribution in this section. It can include own sources of funding provided by the lead applicant, contribution from supporting parties, e.g. charitable organisations, individuals, etc. It can also include contribution by project team members. It shall however not include income generated from the project and the industry sponsorship specified in the table above.

Name of Contributor	Cash Contribution (HK\$'000)	In-kind Contribution		Total (HK\$'000)
		Details (description of equipment/consumables and basis of conversion to cash value)	Cash Equivalent (HK\$'000)	
<b>Sub-total B(ii):</b>				<b>0.000</b>

## C. Project Income

Please list all the estimated income (e.g. licence fees, royalties, etc.) to be received, if any, and provide breakdown of each item and the basis of estimation in the following sections.

Summary:

<b>Category</b>	<b>Amount (HK\$'000)</b>
(i) Estimated Income to be Received During Project Period	0.000
(ii) Estimated Income to be Received After Project Completion	0.000
<b>Total Estimated Project Income (C):</b>	<b>0.000 (i)+(ii)</b>

**(i) Estimated Income to be Received During Project Period**

Source of Income	Basis of Projection/Assumptions	Amount (HK\$'000)
	<b>Sub-total C(i):</b>	<b>0.000</b>

**(ii) Estimated Income to be Received After Project Completion**

Source of Income	Basis of Projection/Assumptions	Amount (HK\$'000)
	<b>Sub-total C(ii):</b>	<b>0.000</b>

## D. Funding Request

	<b>Amount (HK\$'000)</b>
Total Project Cost (A):	1,150.000
Total Industry Sponsorship and Other Sources of Financial Contribution (B):	575.000
<b>Net Amount of Funding Sought from ITF (D):</b>	<b>575.000      (D) = (A)-(B)</b>

<b>ITF Funding vs. Total Project Cost (expressed as a %):</b>	<b>50%      <math>\frac{(D)}{(A)}</math></b>
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## IV. Existence of a Holistic Plan to Realisation/Commercialisation

1. The applicant should provide an estimate with reference to the scale below. <sup>Note</sup>

	1	2	3	4	5	6	7	8	9	10	11	12	
Inception of Idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Use by public sector/ launch into open market

Please indicate by putting '√' in a circle to show at what stage you are at present.  
Please indicate by putting '\*' in a circle to show at what stage you will be at upon project completion.

<u>Stage</u>	<u>Scale</u>
Inception of idea	1 – 2
Proof of concept	3 – 6
Production of samples/prototypes/tools	7 – 8
Conduct of trial schemes	9 – 10
Use in public sector/launch into open market	11 – 12

Note: *The scale is not meant to be exhaustive but rather a tool to facilitate understanding of the project.*



2. Please provide information in relation to the business plan for the project. It should address, inter alia, how to generate income after project completion (e.g. sales and revenue forecast), and whether there is any plan for further development of project deliverables.

The developed system will be employed by the company for their daily operation.

3. Please elaborate on the overall realisation/commercialisation plan, including activities to be undertaken to:

- disseminate the R&D deliverables;
- realise the application of the R&D deliverables in the public sector, i.e. Government bureaux/departments, public bodies, trade associations, charitable organisations; and/or
- market the R&D results in the commercial world, e.g. target users, marketing strategy including market segmentation and analysis of 4Ps in marketing (Products, Price, Place, Promotion), etc.

Please also provide specific timeframe of commercialisation plan (i.e. time schedule for the commercialisation plan to realise/commercialise).

The developed system will be employed by the company for their daily operation.

4. Please provide information in relation to the future positioning of the technology/product in the market and potential industry partners for technology transfer/manufacturing/sales, etc.

n/a

5. Please examine whether there are/will be competitors and if yes, analyse your strengths/weaknesses/opportunities/threats vs. theirs (i.e. SWOT analysis).

n/a

6. Please indicate whether you intend to apply for further phases of funding under the ITF upon completion of this project.

Yes. (Please provide details.)

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No.

## **v. Relevance with Government Policies or in Overall Interest of the Community**

1. Please explain how the R&D project can support major Government initiatives/policies (e.g. environmental protection and healthcare) of Hong Kong.

n/a

2. Please explain how the R&D project can provide opportunities for training of engineering/scientific/R&D personnel in Hong Kong (or facilitate exchange with R&D personnel outside Hong Kong).

The project team will present the research findings to industrialists and researchers from local and overseas companies and research institutes that would provide a platform for local research staffs to exchange ideas with the foreign manufacturers and researchers.

3. Please explain how the R&D project can contribute to the upgrading of the industry.

The development allows the company to potentially save more than HK\$500,000 annually for maintenance .....

4. Please explain how the R&D project can bring social benefit (e.g. creating devices to address unmet clinical needs).

n/a

## VI. IP Rights and Benefit Sharing

1. Please explain whether the R&D will lead to patent(s) or the R&D deliverables will be protected by other IP rights?

- Yes. (Please set out plan for application for grant of patent and whether the R&D deliverables will be patentable.)

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- No.

2. Please indicate whether IPs/patents of a third party will be used in the R&D project, and if so, whether consent/licence for use of such IPs has been/will be obtained.

- Yes. (Please provide details.)

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- No.

3. Please set out the proposed ownership and/or right to use the IPs of the deliverables arising from the current project.

The IP arising from the project will be owned by the company. In addition, City University of Hong Kong and the research team will have a non-exclusive, perpetual and royalty-free license to use the project IP for further research and education.

4. Please set out with justifications the sharing of IP benefits among all parties concerned.

In this project, City University of Hong Kong and the company will be the main implementation organization to make expertise contribution on the development of the mobile robot and will share benefit from commercializing the project IP based on ITF guideline.

The benefit sharing arrangement is being negotiated between Hong Kong Company Limited and CityU.

5. The industry co-applicant may indicate whether consent will be given for the unrestricted use of the R&D deliverables under the current project in the public sector (including Government and public bodies) in Hong Kong or for promulgating the R&D deliverables for non-commercial purposes (e.g. academic journals) in future.

n/a

## VII. Management Capability

1. Please set out the organisational structure and division of responsibilities among parties concerned to undertake/manage/market, etc. the project, both the lead applicant and industry co-applicant/other related parties as appropriate.

### **Lead Applicant**

Dr. Chan Siu Ming has solid background in mechanical and automation engineering and has over 11 years of research experience in robotic and automation.

Based on the previous experience and promising track record in the relevant field of the project team, we are confident that the prototype of the mobile robot can be developed and the objectives can be accomplished.

### **Industry Co-applicant**

The company has a professional inspection team to carry out comprehensive services and surveillance .....

### **Other Related Parties**

n/a



2. Please provide details on the composition and work plan of the project steering committee.

The composition of the project steering committee includes the representative from the company and the Project Coordinator. Regular meeting will be arranged every 1-2 month to discuss and update the project progress. In the reporting period of each milestone, demonstration will also be arranged.

3. Please provide details of all relevant parties involved in the realisation/ commercialisation of the R&D deliverables, e.g. Technology Transfer Office of universities, research partners with successful track record or good international R&D marketing experience, etc.

The company will take care of commercialization of the project results as they will own the project IPR. Mainly, they will use the system in their daily operation.

4. Please advise whether there are any completed or on-going ITF/non-ITF projects in the same/related areas undertaken by the Project Coordinator and the research team members.

Yes. (Please set out details of the project as follows.)

<b>Project Title</b>	<b>Project Ref. No. (for ITF projects only)</b>	<b>Commencement Date</b>	<b>Completion Date</b>
<hr/>			
<hr/>			
<hr/>			

No.

5. Please indicate if the Project Coordinator has sufficient capacity to manage the project satisfactorily (e.g. the number of R&D projects under his purview or any other significant commitments during the project period).

n/a
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## ***Part D Attachments for the Application***

Please number the supporting documents to be submitted together with this form as annexes, and provide the file description.

Annex No.	File Name	File Description
1	Drawing and figures	
2	CV	
3	Budget	Budget justifications

## **Part E Declaration**

I/We have carefully read and fully understand the '**Guide to Filling in the Application Form for the Partnership Research Programme (PRP)**' and the information in this form.

I/We certify that all the information provided in this form is true, complete and accurate. In the event that any information is found untrue, incomplete or inaccurate in future, ITC reserves the right to revoke its approval of any application, withdraw any grant approved, request for refund to the Government of any payment already made, and subject the case to legal proceedings.

I/We agree that information provided in this form will be used and/or disclosed by the Government to relevant parties to process the application, to conduct research and survey, and if the application is successful, to monitor the project, to exercise its rights and powers in relation to the project, and for other related purposes.

### **Lead Applicant**

Authorised Signature for and  
on Behalf of the Lead Applicant

\_\_\_\_\_

Name

Dr Siu-ming CHAN

Post Title

R&D Director

Tel

852-3123 3456

Name of Lead Applicant

City University of Hong Kong

Date

22 Feb 2021

- Chop -

**Lead Applicant  
Chop**

**Industry Co-Applicant**

Authorised Signature for and on  
Behalf of the Industry Co-Applicant

\_\_\_\_\_

Name

Mr SL LEUNG

Post Title

CEO

Tel

852-3406 2549

Name of Industry Co-Applicant

Hong Kong Company

Date

22 Feb 2021



- Chop -

**Industry  
Co-Applicant Chop**