Temasek POLYTECHNIC

CONFIDENTIAL

INVENTION DISCLOSURE FORM

NOTES TO INVENTORS AND DEVELOPERS

1. The purpose of this form is to inform the Polytechnic of your invention or your student's invention, which may have a positive outlook for commercialization, or pursuant to any agreement with an external party. This form should be submitted when something new and useful has been conceived and developed, or when unusual, unexpected or non-obvious research results have been achieved and can be utilized. The completed form, and any attachments, should be submitted to the Director of RIE & Partnership Development (RPD) Department:
   - through the Director of School/Department, if the sole inventor or one of the inventors is a staff member of the Polytechnic; or
   - through the project supervisor and through the Director of School/Department, if the sole inventor is a student of the Polytechnic or all of the inventors are students of the Polytechnic.

2. The invention should be described clearly outlining the background, the state of arts, technical merits, novelty, usefulness, and application of the invention. Avoid the use of general statements. If you use any unusual terms or ordinary terms in an unusual way, do explain them.

3. In the form, boxed areas under each sub-heading are placeholders and not meant to be restrictive or limiting. Please add as much materials as needed under a particular sub-heading and there is no limit to the number of paragraphs, pages, volumes etc. you can add. Drawings are always helpful and do describe all the parts and how the parts work together.

4. All section of the form should be completed. Indicate "NIL" or "NA" ("Not Applicable") where appropriate.

5. All inventors and developers (if applicable) should read, where applicable, the current Polytechnic Intellectual Property Policy deposited on the Staff Portal before completing this form.

6. RPD manages all technology intellectual property generated by Polytechnic staff members and students. Do not hesitate to contact RPD if you need help or clarification by sending an email to inventions@tp.edu.sg.

PART I:

FOR SCHOOL(S) / DEPARTMENT(S)'S OFFICIAL USE ONLY

	Name & Designation	Signature & Date
Submitted by: (Principal Inventor)		
Through (Project Supervisor*)		
Through and Supported by: (Director of School/Department)		
Through and Supported by: (Director of School/Department **)		
Through and Supported by: (Director of School/Department **)		

* Applicable only if the sole inventor is a student of the Polytechnic or if all the inventors are students of the Polytechnic)
** Applicable only if there are more than one inventors or developers who belong to different school(s)/department(s)

PART 2:

FOR RPD'S OFFICIAL USE ONLY

Date of Receipt	
Received by (Name & Signature)	
IDF Registration Number	jiiwt94894

Remarks:

PART 3: To Be Completed By Inventors

1. ACTION REQUESTED FROM RPD

(Please indicate what you would like RPD to do with your completed form.)

	Please Tick	Action
(a)		To file an application for patent
(b)		To seek interested parties to develop the invention further
(c)		To commercialize the invention
(d)		To commercialize the invention on my/our own if the Polytechnic is not interested in doing so
(e)		For information only
(f)		Others, please describe: _____ _____

2. INVENTORS

(An individual who has conceived an essential element of the invention, either independently or jointly with others.)

NOTE:

- The Principal Inventor should be either a staff member of the Polytechnic, or a student of the Polytechnic.
- If an inventor is below 18 years of age, then please indicate date of birth next to inventor's name below.
- If an inventor is not an employee or student of the Polytechnic, then please indicate full name of the "external" organization in the field labelled "School / Department".
- Please attach additional pages as needed, for additional inventors.

Principal Inventor			
Title:	Family Name: Sim	Given Name: Arion	Chinese Name:
Nationality:	Staff / Student No.: 399ur4rijwfe	School / Department:	Contact No.:
Address: Temasek Polytechnic			Email: jacob@gmail.com
Contribution to Invention:			% of Contribution:
Co-Inventor 1			
Title:	Family Name: Sim	Given Name: Jave	Chinese Name:
Nationality:	Staff / Student No.: 22000323C	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:

Co-Inventor 2			
Title:	Family Name: liau	Given Name: jian rong	Chinese Name:
Nationality:	Staff / Student No.: 21043323K	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:
Co-Inventor 3			
Title:	Family Name: Tan	Given Name: Base	Chinese Name:
Nationality:	Staff / Student No.: T03201913C	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:
Co-Inventor 4			
Title:	Family Name: Sim	Given Name: martin	Chinese Name:
Nationality:	Staff / Student No.: 934304J	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:
Co-Inventor 5			
Title:	Family Name: Chan	Given Name: peter	Chinese Name:
Nationality:	Staff / Student No.: 2104943J	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:

3. DEVELOPERS

(An individual who: (a) is a staff member of Polytechnic, (b) is not an inventor, and (c) has contributed towards the making physical embodiment(s) of the invention)

NOTE:

- Please attach additional pages as needed, for additional developer(s).

Developer 1			
Title:	Family Name:	Given Name:	Chinese Name:
Nationality:	Staff / Student No.:	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:
Developer 2			
Title:	Family Name:	Given Name:	Chinese Name:
Nationality:	Staff / Student No.:	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:
Developer 3			
Title:	Family Name:	Given Name:	Chinese Name:
Nationality:	Staff / Student No.:	School / Department:	Contact No.:
Address:			Email:
Contribution to Invention:			% of Contribution:

IMPORTATANT NOTE

The sum total of all "% Contribution" entries shall equate to 100%

4. TITLE OF INVENTION

(Please provide a short descriptive title to identify the invention.)

Real Test

5. FIELD OF INVENTION

(Please provide the technical field, or field of art, or area of industry, to which the invention pertains.)

6. BRIEF SUMMARY OF THE INVENTION

(Mandatory to provide the 'Statement of Novelty' for Inventors who select "To file an application for patent" under Section 1. ACTION REQUESTED FROM RPD)

(Please provide a paragraph describing the key feature(s) of the invention.)

7. KEYWORDS LISTING

Please perform literature search for your invention. Some websites that can be used for search are http://www.google.com/patents and http://worldwide.espacenet.com.

Please provide all relevant information you obtained from your search.

Please provide some keywords and phrases related to the invention that can be used for patent searching and/or marketing of the invention.

8. BACKGROUND

The following are some guidelines on what information to provide:

a) What are the currently known methods or products used?

b) What are the problems with the currently known methods or products used?

c) Is there a known method or product that you feel is closest to the invention?

d) Are there any textbooks, technical papers, patents, publications, commercial products that can provide background technical information?

9. DESCRIPTION OF THE INVENTION

(Please provide a thorough description of the invention, under Appendix A.)

The following are some guidelines on what information to provide:

a) Describe the invention such that a “skilled person” is able to perform, use, or produce the invention.
b) Describe each problem solved, and how the problem is solved by the invention. Give details of the technical features involved.
c) Describe every advantage achieved, and how the advantage is achieved by the invention. Give details of the technical features involved.
d) Provide drawings, and photographs of prototypes if available.
e) Any written documentation, laboratory notebooks, papers etc.?
f) Theory behind the invention.

10. TECHNOLOGY READINESS LEVEL (TRL)

(Please tick the relevant TRL box)

TRL is an indication on the maturity of the invention towards technology adoption based on the following guidelines :

(i) How complete is the invention when it is tested? For example, is it a paper-and-pen concept, a system of equations, a component, a subsystem, or the complete system?

(ii) How representative is the test environment? For example, is it a computer simulation, a controlled laboratory experiment, a demonstration at a proving ground, or a real-world test?

(iii) How similar is the tester to the ultimate technology user? For example, is the tester the developer of the technology, another expert in the field, or a user with no more specific knowledge than the typical technology user?

Please tick the **most** appropriate TRL box for your invention	TRL	Physical Sciences & Engineering	Healthcare (Pharmaceutical)	Healthcare (Medtech)	Healthcare (Diagnostics)	Simplified
	1	Basic principles observed	Basic principles observed	Basic principles observed	Basic principles observed	Proof-of-concept
	2	Technology concept formulated	Technology concept formulated	Technology concept formulated	Technology concept formulated	Proof-of-concept
	3	Experimental proof of concept	Experimental proof of concept in vitro and in vivo research models	Experimental proof of concept in vitro and in vivo research models	Experimental proof of concept in vitro	Proof-of-concept
	4	Technology validated in lab	Proof of concept demonstrated in defined laboratory / animal models	Proof of concept demonstrated in defined laboratory / animal models	Analytical validation	Prototype in lab
	5	Technology validated in relevant environment	Non-clinical and pre-clinical research studies, & initial demonstration of feasibility and efficacy	Product development plan		
	6	Technology demonstrated in relevant environment	Phase 1 clinical trials	Phase 1 clinical trials		
	7	System prototype demonstration in operational environment	Phase 2 clinical trials	Clinical safety and effectiveness trials in operational environment	Clinical validation in one site	Prototype in live environment
	8	System complete and qualified	Phase 3 clinical trials	Overall risk-benefit trials		
	9	Actual system proven in operational environment	Pharmaceutical can be distributed or marketed	Medical device can be distributed or marketed	Clinical validation in multi-site	Ready-to-market

(refer https://www.fhwa.dot.gov/publications/research/ear/17047/17047.pdf)

11. SPONSOR(S)

(Please name sponsor(s) of the projects from which the invention was developed, the total amount of research funding, and any obligations to research sponsor(s) that have to be met when the invention is commercialized.)

Sponsor Name	Title of Project	Amount	Start and End Date	Obligations

If the invention is not a result of a Research Grant or an Agreement with a third party, please indicate whether Polytechnic resources or facilities have been used.

YES / NO *

*If YES, please indicate what are the resources and facilities used:

_____

_____

12. POSSIBLE COLLABORATOR / LICENSEE FOR THE INVENTION

Please list the organizations that have or may have interest in the invention. If contact has already been made, please provide information on status of discussions.

Company Name & Address	Contact Person	Designation	Contact Number & Email	Stage of Discussion

13. COMMERCIAL INFORMATION RELATED TO THE INVENTION

(Please provide any commercial information to assist in the commercialization, understanding, and evaluation of the invention. Details of any confidential information may be provided as a separate attachment, under Appendix B The header or footer of any attachment should be marked "Confidential".)

The following are some guidelines on what information to provide:

a) Which are the companies manufacturing, selling, dealing with, or researching in the same field as the invention?
b) Which companies or persons are currently regarded as the technology leaders in the field of the invention?
c) Who are the potential competitors of the invention?
d) Who are the potential collaborators, licensees, or customers of the invention?
e) Which are the countries that your invention is likely to be practiced or manufactured in? This will help us identify potential countries where infringement may take place.
f) Which are the countries that your invention is likely to be sold in? This will help us identify potential commercial markets.

14. DECLARATION

I / We* warrant that all information given in this application is true and accurate, and no material fact has been withheld. I / We* have read the current Polytechnic Intellectual Property Policy deposited on the Staff Portal, and agree that this submission is in compliance with and is subject to it. I / We* warrant that the contribution of each inventor and developer (as depicted under "Contributions to Invention" and "% Contribution" fields under Part 2 Sections 2 and 3) has been clearly stated and agreed upon mutually.

	Name of Inventor(s)	Signature	Date
1.	PI:		
2.	CI:		
3.	CI:		
4.	CI:		
5.	CI:		
6.	CI:		

PI: Principal Inventor
CI: Co-Inventor

	Name of Developer(s)	Signature	Date
1.			
2.			
3.			
4.			

APPENDIX A: DESCRIPTION OF THE INVENTION

*** There is no limit to the number of pages**

APPENDIX B: COMMERCIAL INFORMATION RELATED TO THE INVENTION

*** There is no limit to the number of pages**

APPENDIX C: QUESTIONNAIRE

FOR RPD'S OFFICIAL USE ONLY

a) Has the invention (product or process) been made available to the public, for example described in a printed publication, been offered for sale, used to produce?
YES / NO*

If YES, when and how?
_____ (dd/mm/yyyy) _____ (details)

Note:
- *"The public" means anyone who does not have a confidential relationship with you.*
- *The information can be in any form, for example a product, a written publication, a publication on the Internet, or a display at a trade show.*

b) Will the invention be made known to the public in any way (including publication, presentation, exhibition, thesis)?
YES / NO*

If YES, when and how?
_____ (dd/mm/yyyy) _____ (details)

c) Is the invention different in any way from the prior art?
YES / NO*

Note:
Prior art includes publications, displays at exhibitions and trade shows, information obtained from third parties, local and foreign patents, and pre-existing products.

d) Does the invention provide us with a competitive advantage?
YES / NO*

If YES, how?
I. We can do it cheaper? **(YES / NO)***
II. We can do it better? **(YES / NO)***

e) How long will the market exist?
Approximately _____ years.

f) How likely is it that there will be competitors in the market?
Impossible / Very Unlikely / Unlikely / Likely / Very Likely / Existing Competitors *

g) Can we contractually prevent a customer from doing it themselves or purchasing from a competitor?
YES / NO*

h) Is this an invention that can be licensed to third parties?
YES / NO*

i) Can we protect the invention as a trade secret?
YES / NO*

I. Can the invention be reversed engineered? **(YES / NO)***
II. Will we have to disclose the invention to customers? **(YES / NO)***
III. Will we have to disclose this to the government, for example because of national security? **(YES / NO)***

IV. Does anyone outside the Polytechnic already know the invention, such as consultants or researchers? **(YES / NO)***

V. Can we protect the invention from ex-employees or ex-students? **(YES / NO)***

j) Will filing a patent application require disclosure of valuable trade secret?
YES / NO*

k) Can we protect the invention with copyright or trademark or registered design right?
YES / NO*

l) Is the invention unobvious compared to what came before it?
YES / NO*

If YES:

I. How different is the invention from the prior art?
Totally Different / Very Different / Different / Slightly Different *

II. How long have people been trying to solve the problem?
Approximately _____ years.

III. How much effort and time did it take to solve the problem?
_____ **(details)**

m) Has anyone who does not have to assign their rights to the Polytechnic contributed to the invention?
YES / NO*

n) Can we obtain an enforceable patent?
YES / NO*

I. Can we detect if someone is infringing? **(YES / NO)***