Carnegie Mellon University

DISCLOSURE OF INTELLECTUAL PROPERTY

All information requested in this document must be completed in order to expeditiously process this Intellectual Property Disclosure. Any missing or incomplete information may delay processing your submission. The submission of this Intellectual Property Disclosure does NOT provide any legal patent protection for the subject intellectual property. For additional information, please refer to CTTEC's website at: www.cmu.edu/cttec.

- 1. Title:
- 2. Creator(s): By signing this form the undersigned Creator(s) acknowledge and agree that they are bound by Carnegie Mellon University's Intellectual Property Policy, online at http://www.cmu.edu/policies/documents/IntellProp.html (the "Policy). Therefore, by signing below: (i) if the Policy allows CMU to own this intellectual property and its associated intellectual property rights, you hereby assign to Carnegie Mellon any and all ownership you have in such intellectual property and intellectual property rights; and (ii) if the Policy allows CMU to receive license rights to this intellectual property and its associated intellectual property rights, you hereby grant to CMU any and all such licenses. Electronic or original signatures for all Creators are required.
- a. Lead Creator:

print or type name	signature		date	
department	phone	current e-mail	% of contribution	
Nature of contribution to	o the IP (Briefly explain why	this person is a creator)		
Carnegie Mellon Employ Student, Visitor, Courtes	yment Status at the time the sy, etc.)	e intellectual property wa	s created (Faculty, Staff,	
Full institutional address	(if not affiliated with Carne	gie Mellon)		
City/State/Country of Re	esidence			

Country of Citizenship

b. Next Creator:

c.

print or type name	signature		date
department	phone	current e-mail	% of contribution
Nature of contribution to	the IP (Briefly explain v	why this person is a creator)	
Carnegie Mellon Employ Student, Visitor, Courtes		e the intellectual property was	s created (Faculty, Staff
Full institutional address	(if not affiliated with Ca	arnegie Mellon)	
City/State/Country of Re	esidence		
Country of Citizenship			
Next Creator:			
print or type name	signature		date
department	phone	current e-mail	% of contribution
Nature of contribution to	the IP (Briefly explain v	why this person is a creator)	
Carnegie Mellon Employ	ment Status at the time	the intellectual property was	s created (Faculty, Staf
Student, Visitor, Courtes			
Full institutional address	(if not affiliated with Ca	arnegie Mellon)	
City/State/Country of Re	esidence		
Country of Citizenship			

d. Next Creator:

print or type name	signature		date	
department	phone	current e-mail	% of contribution	
Nature of contribution to	the IP (Briefly explain why	this person is a creator)		
Carnegie Mellon Employ Student, Visitor, Courtes	ment Status at the time the sy, etc.)	intellectual property was	s created (Faculty, Staff,	
Full institutional address	(if not affiliated with Carner	gie Mellon)		
City/State/Country of Re	sidence			

Country of Citizenship

Please list additional inventor(s) and relevant information on an additional sheet.

3. Description

a. Please provide a short (1-2 paragraph), <u>non-confidential</u> description of your intellectual property in the space below.

b. Please attach a detailed description of the intellectual property – do not 'reinvent the wheel' (pun intended) - as both unpublished and/or previously published documents are encouraged. Feel free to attach sketches, drawings, photographs and other materials that help illustrate the description. In the attached materials, please address the following questions: How does this technology differ from present technology? What problems does it solve, and what advantages does it possess? What are the present and future uses and applications of this technology? What are the disadvantages or limitations of this technology? Has the technology been tested experimentally? Are experimental data available? Also, please suggest 3-10 keywords that someone in your field or someone in industry might use to search for your technology.

4. Intellectual Property Protections

a. The Intellectual Property described in this Disclosure includes (Please "X" all that apply):

A composition of matter (chemical entity) A machine A method or process Software Designs or other copyrightable materials Biological materials Other; please specify

For questions # 4b and 4c, please indicate the date in the format "Month/Day/Year" (ex. 01/01/17).

- b. State first date of:
 - 1. Conception
 - 2. Sketch or drawing
 - 3. Written description
 - 4. Completion of working model (or operational process)
- c. State earliest date, actual or expected, of:
 - 1. Disclosure to others (non-CMU employees)
 - 2. Printed publication
 - 3. Oral disclosure (e.g. seminars, conferences, etc.);
 - 4. Use for profit or Offer for sale.
- **d.** If your work has been disclosed to parties outside of Carnegie Mellon, was it made under the provisions of either a <u>Funding Agreement</u> or governed by a <u>Confidentiality Agreement</u>?
- e. Has there been a prior art/patent and/or literature search relating to this technology? If yes, please include copies of any resulting documentation.
- **f.** Have any patent applications been submitted for this intellectual property as of this date? If yes, please include copies of any resulting documentation.
- g. Have you been personally involved in any prior patent processes for any other technology?
- 5. Sponsorship
- a.

External Sponsor(s)	CMU Oracle #(s)	Contract or Grant #(s)

(Your department administrator may be of assistance in identifying funding sources used.)

Have external sponsors been informed of the invention? Please state yes or no.

b. If funded under a grant or contract, please describe this intellectual property as one of the following (Please "X" one):

Background IP (developed prior to but used in research supported by the grant)
Background IP Improvement (developed both prior to and during the grant)
Foreground IP (developed only during the grant)

- c. Internal Sponsor (Department Research Funds, etc.)_____
- **d.** Was this intellectual property developed in collaboration with any other 3rd parties (companies, universities, etc.) or as a part of a research consortium? Please state yes or no, and list collaborators or consortium below:

6. Use of 3rd Party Resources

- **a.** Have you used any third-party resources in the creation of your technology (i.e., material or equipment from a company or university under a Material Transfer Agreement (MTA) or other formal or informal agreement)?
- **b.** Have you used any software, libraries, etc. from other internal (e.g., CMU) sources (ex. projects or researchers) in the development of this technology or does the technology otherwise build upon earlier work at CMU?
- c. Have you used any Open Source software in the development of this technology? Please list below:

7. Commercialization

a. Give your opinion on the current stage of development of the technology as it relates to its current

marketability (Please "X" the appropriate response.)

embryonic (needs substantial work to bring to market)

partially developed (could be brought to market with nominal investment)

off-the-shelf (could be brought to market with minimal investment)

b. Has the technology been disclosed or provided to any industry representatives? Has any industry representative, entrepreneur or funder shown commercial interest in this technology? Do you know (or have reason to believe) there will be commercial interest in this invention? Please specify any application areas and/or products currently on the market that you feel may embody aspects of your technology.

c. How long would it take you to verbally transfer the requisite, implicit knowledge to industry peers in order to enable the development and commercialization of the technology without your substantial, further involvement (ex. # months, weeks, years)?

d. Please rate how interested you are in starting a firm to commercialize the technology? (Please "X" one)

Carnegie Mellon - Center for Technology Transfer

- _____1. Highly interested. I've already started to look into it.
- _____ 2. Somewhat interested. I'd like to know more about it.
- _____ 3. I've not considered it positively or negatively.
- 4. Not particularly interested, but willing to consider it under the right circumstances.
- _____ 5. Would not be willing to start a firm.
- 8. Please recommend two professionals from the CMU community who would be best suited to evaluate the <u>technical and commercial</u> merits of this technology:

a. Name:	Dept:	Ext.:	
Email:			
b. Name:	Dept:	Ext.:	
Email:			

Please feel free to attach additional material or data that would provide us with helpful information.

Email the completed electronic copy of this Invention Disclosure form to:

innovation@cmu.edu

If unable to sign electronically, paper copies may be sent to:

Department Administrator Center for Technology Transfer & Enterprise Creation 4615 Forbes Avenue, Suite 302