



INSTRUCTIONS

- I. The Center for Research Innovation (CRI) reviews all complete Invention Disclosure Forms as they are received from members of the Northeastern University (NU) community. Invention Disclosure Forms are reviewed for patentability and for commercial potential. All information on the form must be completed in order for the CRI to perform its review. Typically, the CRI files a provisional patent application on any inventions that may be patentable. Where appropriate, the CRI seeks to license NU inventions to industry for further development and commercialization. Any royalties derived from any such license are shared with the inventor(s) and their departments according to NU Policy (see the Faculty Handbook section on Patents and Copyrights and the Student Handbook).

The purpose of this form is to notify NU of your potential invention and any relevant sponsorship and publication history. The form also serves to establish a legal record of the date of conception of the invention. This form should be submitted to the CRI when something new and useful has been conceived, or when unusual, unexpected or unobvious research results have been achieved and can be used.

- II. The following instructions should be used when completing the form.
1. Use a brief descriptive title to aid in identifying the technology.
In describing the technology, attach material which covers the following points. Each needs to be answered completely and separately.
 2. Description (General Purpose)
 3. Novel and Unusual Features (3 – 5 bullets)
 4. Advantages and improvements over existing methods, devices, or materials (3 – 5 bullets)
 5. Commercial applications (economic potential, etc.) – (bullets)
 6. Technical Description
 7. Include the names of any co-inventors. A co-inventor is an individual who has conceived or contributed an essential element of the invention, either independently or jointly with others, during the evolution of the technology concept or reduction to practice. **An inventor is not someone who is added to the invention disclosure as a courtesy. Incorrectly naming inventorship can result in the loss of patent rights.**
 8. If the invention was made in connection with any sponsored research, the appropriate grant numbers **MUST** be listed. In addition, all completed invention disclosure forms **MUST** include the signature(s) of the inventor(s).
 9. In the United States, a patent application must be filed no later than one year after public availability of a printed publication disclosing the invention in detail or an oral disclosure. In other countries, the filing must take place before either printed or oral publication is made available to the public; however, where there has been a U.S. filing before any oral or printed publication, generally a one-year grace period is granted for foreign filing. Complete all parts of section 5 in view of the following:



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- a. **Conception**, in the patent-law sense, involves the formulation, in the mind of the inventor, of the complete means for solving a problem. The mere recognition of a desirable result, or of a problem, or of a general approach to solving the same, without the formulation of the physical structure to accomplish that result or to solve the problem, will not suffice to constitute conception.
 - b. The term “**first publication**” means the first time any member of the general public, without restriction of confidentiality, would have been able to legally gain access to your written or printed enabling description of the invention. This includes a thesis submitted to the NU library.
 - c. The term “**first oral disclosure**” means the same as 5b, but only as to oral presentation to the general public. The general public can be a small group of people. If, however, the people to whom you disclose have an obligation to keep the invention confidential, such as for example because there is a confidentiality agreement in place, then you have not publicly disclosed the invention.
 - d. The anticipated date of publication, as described in 5b above, should be entered here, as well as the date any documentation was submitted for review for possible publication. This includes a thesis submitted to the NU library.
10. Reduction to practice, according to patent law, involves actual and complete use of the invention for its intended purposes. Such reduction to practice usually involves physical construction of the invention and testing the physical embodiment to determine whether it performs as contemplated, but this is not always necessary if the invention can be fully described.
 11. A list of commercial entities that may be interested in the invention will assist the CRI in identifying potential licensees for the technology. Please include names and addresses of specific contacts, if known.
 12. Non-NU inventors are not required to sign this form, but their contact information must be provided.
 13. Form must be filled out completely. Attach extra pages for further detail if necessary.
 14. Invention Disclosure must be signed and dated by all of the contributors listed on *Page 5*.
 15. Return completed forms and supporting materials via:
mail Northeastern University, Center for Research Innovation
900 Renaissance Park, Boston, MA 02115
e-mail disclosure@neu.edu
 16. **IF YOUR CONTACT INFORMATION CHANGES, IT IS YOUR RESPONSIBILITY TO NOTIFY THE CRI VIA EMAIL AT disclosure@neu.edu.**



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| For CRI Use Only | |
|------------------|-------|
| DATE RECEIVED | INV # |
| | |

Invention

Will any of the inventors be publicly disclosing this invention within the next 3 months? Yes No

If yes, please provide date

1. Title of Invention

Please attach supporting documentation for each of the points below.

2. Description of Technology (General Purpose)

3. Novel and Unusual Features (3 – 5 bullets)

4. Advantages and Improvements over existing methods, devices, or materials (3 – 5 bullets)

5. Commercial applications (economic potential, etc.) – (bullet format)

6. Technical Description

Contributors

7. Please list the lead inventor first. Please write legibly. Complete information is essential.

Contributor #1

Full Name

NU ID# NU Dept.

Country of Citizenship Institution ¹

Local Address

Permanent Home Address

NU Email Address

Other Email Address

Office Phone

Status (select one) Faculty Staff Student

Describe the contribution of #1

Contributor #2

Full Name

NU ID# NU Dept.

Country of Citizenship Institution ¹

Local Address

Permanent Home Address

NU Email Address

Other Email Address

Office Phone

Status (select one) Faculty Staff Student

Describe the contribution of #2



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¹ If inventor is not an NU employee, provide address of the institution or company with which he/she is associated.

| | | | | | | |
|--|----------------|---------------------------------|--------------|--------------------------|----------------|--------------------------|
| Contributor #3 | | | | | | |
| Full Name | | | | | | |
| NU ID# | | NU Dept. | | | | |
| Country of Citizenship | | Institution ¹ | | | | |
| Local Address | | | | | | |
| Permanent Home Address | | | | | | |
| NU Email Address | | | | | | |
| Other Email Address | | | | | | |
| Office Phone | | | | | | |
| Status (select one) | Faculty | <input type="checkbox"/> | Staff | <input type="checkbox"/> | Student | <input type="checkbox"/> |
| Describe the contribution of #3 | | | | | | |

| | | | | | | |
|--|----------------|---------------------------------|--------------|--------------------------|----------------|--------------------------|
| Contributor #4 | | | | | | |
| Full Name | | | | | | |
| NU ID# | | NU Dept. | | | | |
| Country of Citizenship | | Institution ¹ | | | | |
| Permanent Home Address | | | | | | |
| NU Email Address | | | | | | |
| Other Email Address | | | | | | |
| Office Phone | | | | | | |
| Status (select one) | Faculty | <input type="checkbox"/> | Staff | <input type="checkbox"/> | Student | <input type="checkbox"/> |
| Describe the contribution of #4 | | | | | | |

| | | | | | | |
|-------------------------------|----------------|---------------------------------|--------------|--------------------------|----------------|--------------------------|
| Contributor #5 | | | | | | |
| Full Name | | | | | | |
| NU ID# | | NU Dept. | | | | |
| Country of Citizenship | | Institution ¹ | | | | |
| Local Address | | | | | | |
| Permanent Home Address | | | | | | |
| NU Email Address | | | | | | |
| Other Email Address | | | | | | |
| Office Phone | | | | | | |
| Status (select one) | Faculty | <input type="checkbox"/> | Staff | <input type="checkbox"/> | Student | <input type="checkbox"/> |



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| | |
|--|--|
| Describe the contribution of #5 | |
|--|--|

¹ If inventor is not an NU employee, provide address of the institution or company with which he/she is associated.

Supporting Funds

8. What funds supported the work leading to this invention? Please include federal, non-federal, foundation and industry funding, gifts, etc. Also include appropriate grant number where applicable. **If no funding, please state "None".**

| | | | |
|----------------|--|---------------------|--|
| Sponsor | | Grant Number | |
| Sponsor | | Grant Number | |
| Sponsor | | Grant Number | |

Dates of Conception and Public Disclosure

9. Please provide dates of conception and public disclosure. Accurate data is essential as prior disclosure may affect the possibility of obtaining patent rights.

Conception of Invention

| | | | |
|---|------------------------------|-----------------------------|--|
| Date | | | |
| Has this been documented? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| If yes, where? | | | |
| References/Comments <i>Please include names of periodicals/journals, using a separate sheet if necessary (attachment)</i> | | | |

First Publication containing sufficient description to enable a person skilled in this field to understand and to make or use the invention (Include Theses and Date Submitted)

| | | | |
|---|--|--|--|
| Date | | | |
| References/Comments <i>Please include names of periodicals/journals, using a separate sheet if necessary (attachment)</i> | | | |

First public oral disclosure of invention sufficient to enable a person skilled in this field to understand and to make or use the invention

| | | | |
|---|--|--|--|
| Date | | | |
| References/Comments <i>Please include names of periodicals/journals, using a separate sheet if necessary (attachment)</i> | | | |

If unpublished and undisclosed, what is the anticipated publication or public oral disclosure date and any submissions made for potential publication?

| | | | |
|---|--|--|--|
| Date | | | |
| References/Comments <i>Please include names of periodicals/journals, using a separate sheet if necessary (attachment)</i> | | | |

Reduction to Practice

| | | | |
|--|------------------------------|-----------------------------|--|
| 10. Has the invention been reduced to practice? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
|--|------------------------------|-----------------------------|--|



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| | |
|---------------------------|--|
| If yes, what date? | |
|---------------------------|--|

Commercial Context

11. Please list all commercial applications of this invention.

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Please list any potential commercial entities that may be interested in this technology. Include contact information when possible.

| Entity | Contact Information |
|--------|---------------------|
| Entity | Contact Information |
| Entity | Contact Information |
| Entity | Contact Information |

Based on the Levels described in Appendix A. Please provide any data supporting your ranking. (attachment)

| | |
|--|--|
| What is the current level of your technology? | |
| What level will you be at in one year? | |

Prior Related Patent Applications or Patents

12. Please list prior related patent applications or patents

| Title | Main Inventor | Inv/Patent Application/Patent # |
|-------|---------------|---------------------------------|
| | | |
| | | |
| | | |

List of Materials Associated with the Invention and Distributed to Individuals Outside NU

13. Please list materials. Applies to materials distributed with or without a Material Transfer Agreement.

| Material Description | Recipient Name | Recipient Organization |
|----------------------|----------------|------------------------|
| | | |
| | | |
| | | |

List of Materials Used in the Invention and Obtained from Outside Sources

14. Please list materials. For materials provided under a contract, specify type of agreement.

| Material Description | Provider Name | Provider Organization |
|----------------------|---------------|-----------------------|
| | | |



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Software Inventions

| | | |
|--|-------------------------------------|------------------------------------|
| 15. Does your invention involve open source code? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
|--|-------------------------------------|------------------------------------|

| | | |
|--|-------------------------------------|------------------------------------|
| 16. Does your invention incorporate or rely upon any software not written by the inventors? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
|--|-------------------------------------|------------------------------------|

| | |
|--------------------------------|--|
| If yes, please describe | |
|--------------------------------|--|

Search Terms

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|--|
| 17. Please provide 5 key search terms to assist in a prior art search on your invention |
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| |

Principal Contact Person

| | |
|---|--|
| 18. Please provide the following information for your principal contact. Provide multiple phone and email addresses as applicable. | |
| Full Name | |
| Main Phone | |
| Office Phone | |
| Cell Phone | |
| NU Email Address | |
| Personal Email Address | |



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Inventor Declaration

19. Inventor Declaration - I (we) hereby assign and agree to assign all rights, title, and interest to this Invention to Northeastern University and agree to execute as requested any patent applications, assignments and other documents related to this invention and to cooperate with Northeastern University in the protection of this invention. Northeastern University will share any income derived from this Invention with the inventor(s) according to its Patent Policy. The undersigned also hereby declare(s) that he/she/they are the true originator(s) of the Invention disclosed herein, and that the Invention arose in the course of work on behalf of Northeastern University or through the benefit of the use of Northeastern University facilities, equipment or other.

Signature of Inventor(s) *All inventors must sign.*

| | | | |
|------------------|--|------------------------|--|
| Signature | | | |
| Date | | Print Full Name | |
| Signature | | | |
| Date | | Print Full Name | |
| Signature | | | |
| Date | | Print Full Name | |
| Signature | | | |
| Date | | Print Full Name | |
| Signature | | | |
| Date | | Print Full Name | |

For your reference, NU Intellectual Property Policy may be found in Patent and Copyright Section of the Faculty Handbook as provided at <http://www.northeastern.edu/facultyhandbook/>.



| Appendix A | | |
|----------------------------|---|--|
| Technology Readiness Level | Life Sciences | Physical Sciences and Software |
| Level 1 | Basic observations and new hypothesis reported | Basic observations and new hypothesis reported |
| Level 2 | Novel paradigm/ composition of matter /method formulated; Customers identified; Corroborating preliminary results obtained. | Technology concept and/or application formulated. There is no experimental proof or detailed analysis to support the conjecture. |
| Level 3 | Analytical or experimental proof-of-concept established. <i>In-vitro</i> demonstration of results consistency to validate components. | R&D is initiated: analytical studies set the technology into an appropriate context and “proof-of-concept” laboratory-based studies physically validate that the analytical predictions are correct. |
| Level 4 | Proof-of-concept established in complex <i>in-vitro</i> settings. Demonstration of component competitive added value. | Basic technological elements integrated to establish that the “pieces” will work together to achieve concept-enabling levels of performance for a component and/or breadboard. |
| Level 5 | Component validation in relevant environment. <i>In-vivo</i> POC established in small animals. | Component and/or breadboard validated in a relevant environment |
| Level 6 | System/subsystem demonstration in relevant environment. <i>In-vivo</i> POC established in other species (canine, feline, etc.) | System/subsystem model or prototype near the desired configuration in terms of performance, weight, and volume tested in a relevant environment. |
| Level 7 | System prototype demonstration in an operational environment. <i>In-vivo</i> POC established in non-human primates | System prototype demonstrated in an operational environment. |
| Level 8 | Actual system completed and qualified through test and demo. POC established in humans /Phase I clinical trials | Actual system completed and qualified through test and demonstration. |
| Level 9 | Actual system proven through successful mission operations. Future product proven successful in Phase II and III clinical trials. | Actual system proven through successful mission operations. |