

TITLE AND DESCRIPTION OF INVENTION

TITLE OF INVENTION: Click to enter text.

A meaningful descriptive title of your invention

BRIEF DESCRIPTION OF INVENTION: Click to enter text.

A brief summary of the invention to inform the University of the nature of the invention. The description should be directed to the specific invention being claimed and not generalities that would be equally applicable to other inventions. The subject matter of the invention should be described in one or more clear, concise sentences or paragraphs.

IN ADDITION, PLEASE BE SURE TO ATTACH a comprehensive description of the invention to this form, including a detailed description of experimental results, figures and/or tables that support your conclusions and proposed uses. Please feel free to add short statements indicating other possible conceptual uses, in addition to the ones that you have already demonstrated. Review of the disclosure and protection of the invention will be delayed without a comprehensive description.

RELEVANT SPONSORSHIP AND OTHER AGREEMENTS

YES NO

1. WAS THIS INVENTION DEVELOPED WITH THE USE OF ANY **EXTERNALLY SPONSORED** GRANT/CONTRACT FUNDS? IF YES, PLEASE **IDENTIFY ALL AGREEMENTS** BELOW **AND ATTACH A COPY** OF THE AWARD LETTER OR CONTRACT COVER SHEET THAT INDICATES THE GRANT OR CONTRACT NUMBER.

AGENCY OR SPONSOR	GRANT/CONTRACT	VT FUND NO.	PRINCIPAL INVESTIGATOR
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Research sponsor contract information is required so Virginia Tech can fulfill its disclosure obligation to sponsors, note Government sponsorship on patents, and determine sponsor's IP rights.

2. WAS THIS INVENTION DEVELOPED USING ANY **VT INTERNAL FUNDS**?
IF YES, IDENTIFY SOURCE:

If you want to recognize any internal University support, please enter the information here.

3. HAVE YOU ENTERED INTO ANY **OTHER AGREEMENTS** (I.E. MATERIAL TRANSFER AGREEMENT (MTA), MEMORANDUM OF UNDERSTANDING, CONSORTIUM AGREEMENT, OR CONSULTING AGREEMENT) WHICH MAY GRANT RIGHTS OF ANY SORT IN THIS INVENTION TO A COMPANY OR PARTY OUTSIDE VIRGINIA TECH? **IF YES, PLEASE ATTACH.**

DATES OF CONCEPTION, REDUCTION TO PRACTICE, AND PUBLIC DISCLOSURE
(See Definitions)

DATE THIS INVENTION WAS **CONCEIVED**? Click to enter date.

HAS THE **CONCEPTION** BEEN DOCUMENTED? YES NO IF YES, **WHERE**? Click to enter text.

HAS THIS INVENTION BEEN **REDUCED TO PRACTICE**? YES NO IF YES, **WHEN**? Click to enter text.

HAS THIS INVENTION BEEN DESCRIBED EITHER IN A **PUBLICATION OR VERBALLY** OUTSIDE OF VIRGINIA TECH? YES NO

WHEN AND WHERE DID YOU **FIRST DISCLOSE** OR **PLAN TO DISCLOSE** YOUR INVENTION? PLEASE ENTER DATE BELOW AND FOR WHERE, **PLEASE ATTACH ANY ABSTRACT, POSTER, PUBLICATION, PRESENTATION, OR WEBSITE LOCATION THAT CONTAINS THE DISCLOSURE.**

WHEN: Click to enter date.

WHERE: Click to enter text.

Lab notebooks are critical to establish conception and reduction to practice dates, which help document inventorship.

We must file patent applications before any non-confidential disclosure (publication or presentation). Otherwise, you could lose all patent rights!

IF NOT DISCLOSED AND NO PLANS TO DISCLOSE, PLEASE CHECK BOX: NO PLANS TO DISCLOSE

EXPORT CONTROL: IS THIS INVENTION LIKELY TO HAVE ANY EXPORT CONTROL SENSITIVITY? YES NO

Please check YES if you believe the invention MAY be subject to export controls (e.g. International Traffic in Arms Regulations, Export Administration Regulations, Nuclear Regulatory Commission). If your project is NOT considered fundamental research and required the establishment of a Technology Control Plan or Faculty Agreement with the Office of Export and Secure Research Compliance (OESRC), please check YES.

OWNERSHIP DETERMINATION -- VIRGINIA TECH INVENTORS

Inventor/Originator Owned We do not believe Virginia Tech has any rights or ownership to the invention disclosed. **DO NOT SIGN BELOW.**

University Owned Virginia Tech shall share any royalty income derived from this disclosure according to VT Policy 13000. Virginia Tech inventors must complete Attachment B – Royalty Sharing. **PLEASE SIGN AND DATE BELOW.**

By signing below, all Virginia Tech originators/inventors agree to assign, and do hereby assign, all right, title and interest to this intellectual property to Virginia Polytechnic Institute and State University (VT) and agree to execute all documents as requested, assigning to VT their rights in any patent application or other intellectual property protection filed on this invention, and to cooperate with Virginia Tech Intellectual Properties, Inc. (VTIP) in the protection of this intellectual property. By signing below, the originators/inventors confirm that prior to the execution of this disclosure, they have not granted the right or license to make, use, or sell the disclosed intellectual property to anyone except to VT, nor have they otherwise encumbered their rights, title, and interest in the disclosed intellectual property, nor will they execute any instrument in conflict with this agreement.

University ownership is governed by VT Policy 13000.

From <http://www.du.edu/research-scholarship/intellectual-property/inventorship.html>

WHAT IS MEANT BY INVENTORSHIP:

Inventorship has a strict legal meaning under the laws and regulations of the U.S. patent system. The law specifies that only those who have made independent, conceptual contributions to an invention are legal inventors in the United States.

Inventorship

- An inventor is one who, alone or with others, first invents a new and useful process, machine, composition of matter (or other patentable subject matter).
- If an invention involves more than one inventor, it is a joint invention; multiple inventors are called joint or co-inventors.
- Inventorship and authorship are not the same. All co-inventors are co-authors of a publication describing an invention. Co-authors may not necessarily be co-inventors.

Inventorship criteria

- The most important consideration in determining inventorship is initial conception of the invention. The courts have ruled that, unless a person contributes to the conception of the invention, that person is not an inventor.
- Conception of the invention under patent law has been defined as "the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice."
- An invention is complete and operative "if the inventor is able to make a disclosure which would enable a person of ordinary skill in the art to construct or use the invention without extensive research or experimentation."

Include any non-VT inventors on the next page.

Copyrightable inventions like software can be both patented and copyrighted, so work with VTIP to clarify authors (who wrote it) vs. inventors (whose idea it was).

INVENTOR (1) SIGNATURE

Click to enter text.

VT DEPT/CENTER

Click to enter text.

VT ADDRESS

Click to enter text.

VT ID NUMBER

INVENTOR (2) SIGNATURE

Click to enter text.

VT DEPT/CENTER

Click to enter text.

VT ADDRESS

Click to enter text.

VT ID NUMBER

INVENTOR (3) SIGNATURE

Click to enter text.

VT DEPT/CENTER

Click to enter text.

VT ADDRESS

Click to enter text.

VT ID NUMBER

Click to enter text.

CITIZENSHIP

INVENTOR (4) SIGNATURE

DATE

Click to enter text.

VT DEPT/CENTER

Click to enter text.

VT ADDRESS

Click to enter text.

VT ID NUMBER

Click to enter text.

CITIZENSHIP

Click to enter text.

TYPED NAME

Click to enter text.

PHONE

Click to enter text.

RESIDENCE ADDRESS

Click to enter text.

TITLE

Click to enter text.

EMAIL

Original signatures and digital signatures are accepted. Inventors do not need to all sign the same page (multiple copies of this page are acceptable). Please include any non-VT inventors on the next page.

OTHER (NON-VT) INVENTORS

Please provide information for any inventors affiliated with other institutions or companies. The information provided will be used to contact the other inventor(s) if intellectual property protection is pursued on the invention. Signatures of inventors not affiliated with Virginia Tech are not required.

Click to enter text.

TYPED NAME TITLE

Click to enter text.

INSTITUTION/COMPANY ADDRESS

Click to enter text.

CITIZENSHIP

Click to enter text.

INSTITUTION/COMPANY AFFILIATION

Click to enter text.

PHONE

Click to enter text.

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TYPED NAME TITLE

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INSTITUTION/COMPANY ADDRESS

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CITIZENSHIP

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INSTITUTION/COMPANY ADDRESS

Click to enter text.

CITIZENSHIP

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INSTITUTION/COMPANY AFFILIATION

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PHONE

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EMAIL

**INTELLECTUAL PROPERTY DISCLOSURE
ATTACHMENT A – REVIEW FOR UNIVERSITY OWNERSHIP AND ROYALTY SHARING**

To be completed by the university originators/inventors and reviewed by the home Department Head/Center Director of each originator/inventor. If originators/inventors are from different home department(s)/center(s), Attachment A shall be submitted for each unit.

University Ownership

These three questions help document University ownership of the invention.

YES **NO**

1. Were university resources, such as facilities, equipment, materials, funds, information, or the time or services of other university employees, used in the production of the work or development of the intellectual property?

2. Does the work performed in the development of this intellectual property fall within the range of the normal activities expected of the originators/inventors by their appointment or employment by the university (i.e. teaching, research, public service)

3. Did the originators/inventors work on this project during their normal university working hours?

Exception to Royalty Sharing Eligibility: **YES** **NO**

1. Did the intellectual property result from tasks and/or activities that were specifically and explicitly assigned to the employee(s) by your unit? In other words, did the employee just perform tasks as assigned, as opposed to providing original intellectual contribution? University Policy 13000 on Intellectual Properties states that revenues from such intellectual property are excepted from royalty sharing with such employee(s).

If yes, the signature below attests that this work was specifically and explicitly assigned to the employee(s) identified as NOT ELIGIBLE below and who cannot share in any royalties:

Signature of Immediate Supervisor

Printed Name/Title of Immediate Supervisor

This section will typically be answered "no" by University faculty and graduate students. It would be answered "yes" for staff members whose contribution does not reach the threshold of inventorship.

2. **If yes**, the undersigned university inventors of the intellectual property described in this disclosure acknowledge that this work was specifically and explicitly assigned to us and that we are not eligible to share in any royalties:

INVENTOR NAME (NOT ELIGIBLE FOR ROYALTY SHARING)	SIGNATURE	DATE
INVENTOR NAME (NOT ELIGIBLE FOR ROYALTY SHARING)	SIGNATURE	DATE
INVENTOR NAME (NOT ELIGIBLE FOR ROYALTY SHARING)	SIGNATURE	DATE

Reviewed by Department Head/Center Director

By signing below, I have reviewed and agree to the above determination. (If the Reviewer is an originator/ inventor on this disclosure, his/her administrative supervisor must sign below.) Should any royalties be earned from this disclosure, the home Department/Center of each inventor is entitled to a 10% share divided equally among the departments/centers. Please indicate the home Department/Center Organization Code. The Budget Office will establish the fund based on activity and notify affected departments/centers.

Review and signature of administrative supervisor (typically department head) is required. Multiple approvals are required if inventors are from multiple departments.

SIGNATURE ORGANIZATION CODE

SIGNATURE DATE DEPT/CENTER ORGANIZATION CODE

**INTELLECTUAL PROPERTY DISCLOSURE
ATTACHMENT B – ROYALTY SHARING**

All royalties, rents, payments, or any cash receipts from the sale, assignment, transfer, licensing or use of the disclosed intellectual property shall be shared with inventors in accordance with VT Policy 13000: Policy on Intellectual Properties.

We, the undersigned university originators/inventors or contributors to of the intellectual property described in this disclosure, mutually agree that any share of revenues to be paid to us shall be distributed as follows:

Inventors receive 50% royalty share after deduction of expenses. This section determines how the VT inventors will split their inventor share. Co-Inventors from other organizations receive their royalty share from their organization and should not be included here. The Royalty Share of all VT inventors should total 100%.

Click to enter date.	Click to enter text.			Click to enter text.
Date	Printed Name			Royalty Share*
Click to enter date.	Click to enter text.			Click to enter text.
Date	Printed Name			Royalty Share*
Click to enter date.	Click to enter text.	Click to enter text.		Click to enter text.
Date	Printed Name	VT ID No.	Signature	Royalty Share*
Click to enter date.	Click to enter text.	Click to enter text.		Click to enter text.
Date	Printed Name	VT ID No.	Signature	Royalty Share*
Click to enter date.	Click to enter text.	Click to enter text.		Click to enter text.
Date	Printed Name	VT ID No.	Signature	Royalty Share*
Click to enter date.	Click to enter text.	Click to enter text.		Click to enter text.
Date	Printed Name	VT ID No.	Signature	Royalty Share*
Click to enter date.	Click to enter text.	Click to enter text.		Click to enter text.
Date	Printed Name	VT ID No.	Signature	Royalty Share*

***Percentages must total to 100%. If all university originators/inventors or contributors will share equally, indicate so by listing “equal” as the percentage—DO NOT LEAVE BLANK. VT ID number is required.**

DO NOT INCLUDE NON-UNIVERSITY INVENTORS. Non-university inventors will share in royalties as determined by their employer.

Please be sure to include the date of your signature.

**INTELLECTUAL PROPERTY DISCLOSURE
ATTACHMENT C – COMMERCIAL APPLICATIONS**

Describe the current and/or potential commercial applications for this intellectual property.

This information is encouraged and helps VTIP identify potential licensing opportunities. Other information that can help us includes background on the invention, including the problem it was intended to solve, the advantage of this invention over existing approaches, and any barriers or additional work required to commercialize the invention.

List any potential contacts that you believe may be interested in this technology or may have background and expertise in the technology area(s) related to this intellectual property.

The best licensees come from companies that already know you. Please advise us of any companies and key contacts at those companies (including email and/or phone). Additionally, any contacts you can recommend who can provide us with insight about the relevant industry and potential licensees is helpful. This can include suppliers, customers, end users, regulators, or consultants.

List any conferences, meetings, or trade shows that you and/or industry representatives attend that may help us make contacts to market, commercialize, and learn more about this intellectual property.

We have found that the primary target audiences for our efforts are industry staffers—scientists or executives—who can either decide to enter into a research partnership with Virginia Tech or can initiate or advocate for this participation. Our experience suggests that such a decision may be initiated either by scientists or by executives who are intrigued by the possibilities of an invention, and it usually has to be approved by a mid- to senior-level executive. In addition, industry business and thought leaders often set the tone and agenda for their industry sector and have an important impact on the R&D and other strategic decisions of individual companies. Any insight you can provide to make sure we have the right levels of outreach to industry audiences will be helpful.

Provide a brief (approximately 250 words), non-confidential overview of the invention that may be used to for marketing purposes and to solicit interest from potential licensees and respond to inquiries.

This summary will be the basis for a listing on VTIP's Available Technologies webpage, which is searchable via Google, so use relevant keywords. This overview should provide only enough information to generate interest (not a detailed description). The aim is to have companies contact us to request more information. We recommend focusing more on potential applications and advantages over alternatives. The description of the technology itself should be concise.

INTELLECTUAL PROPERTY DISCLOSURE INSTRUCTIONS

Virginia Tech recognizes the value of intellectual property (IP) and is committed to promoting the value of its intellectual property portfolio through its university affiliated corporation, Virginia Tech Intellectual Properties, Inc. (VTIP). Faculty and staff at Virginia Tech have an obligation to disclose research results that may result in intellectual property and/or commercial utilization. The IP disclosure is necessary to enable Virginia Tech to legally protect intellectual property and to comply with government and industry contractual requirements. This is an important legal document that should be completed when something new and useful has been conceived or developed, or when unusual, unexpected or unobvious research results have been achieved and can be utilized.

The **INTELLECTUAL PROPERTY (IP) DISCLOSURE** form is an internal Virginia Tech form used to provide a written record of your intellectual property. The information contained in this disclosure will be used to establish a legal record of the date of conception of the intellectual property, evaluate the technology as to its patent and commercial potential, obtain information necessary to file patent applications or other forms of IP protection, comply with sponsor reporting requirements, and to identify potential licensees.

Virginia Tech is required by federal law to report income along with Social Security numbers for all employees and students to whom compensation is paid. The University may disclose your Social Security number when required by law, or to external entities acting as the University's contractor or agent. Your VT ID number will be used by VTIP to verify your Social Security number.

Please send the completed, signed form and all attachments to **Campus Mail Code 0459**, by email to vtippatents@vtip.org or delivered/mailed to the following address:

Virginia Tech Intellectual Properties, Inc.
2200 Kraft Drive, Suite 1050
Blacksburg, VA 24060

Tel: (540) 951-9374
Fax: (540) 951-5292
Website: www.vtip.org

The completion of this disclosure is the beginning of the inventor's/originator's responsibility in this process. The University encourages all inventors to monitor the progress of their disclosure through VTIP as inventors are often the best sources of information concerning the capabilities and commercial potential of the invention. VTIP has regular office hours on campus and at its location in the Virginia Tech Corporate Research Center to answer your questions and to learn more about the IP and innovation resources at Virginia Tech.

Connect with us:



IP & Innovation Office Hours

@ 3320 Torgersen Hall: Thursdays 1 – 3 pm

@ VTIP's CRC Office: Fridays 9 am – 12 pm

DEFINITIONS

Inventorship is determined by criteria specified in the U.S. patent law. U.S. patents are granted only to the true inventor(s). An inventor would be that person who, alone or in combination with others, discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. Authorship does not mean inventorship.

The correct listing of all inventors is very important. A patent can be invalidated for the failure to list all of the proper inventors. Inventors may need to be added to an application or initially named inventors removed from the patent based upon the final claims in the patent.

Conception according to the U.S. patent law involves the formulation, in the mind of the inventor(s), of a definite and permanent idea of the complete and operative invention. An invention would be complete and operative if the description would enable one of ordinary skill in the art to construct the apparatus or perform the method without extensive research or experimentation. If extensive research or experimentation is necessary to reduce the invention to practice, then the conception was probably not complete. Likewise, if no significant difficulties were encountered and few if any deviations were made from the mental plan, the conception was probably complete, and the person or persons responsible for the plan are the true inventors. If deviations were required, those responsible for the deviations could be joint inventors.

Reduced to practice can be accomplished two different ways. Actual reduction to practice is a physical embodiment of the invention for its intended use. Constructive reduction to practice is reasonable theoretical proof that the invention will work, which is described in writing.

First written publication or oral public disclosure is 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, or the first oral presentation to the general public.

INTELLECTUAL PROPERTY DISCLOSURE INSTRUCTIONS

TITLE AND DESCRIPTION OF INTELLECTUAL PROPERTY

Provide a descriptive and concise title and attach a **comprehensive description of the invention**. Please state the key features of your invention, its most important uses, and how it improves on existing technology or practice. Attach supporting documentation that can provide a more complete description of the invention (i.e. manuscripts, diagrams, or data) and that describe its advantages and differences over existing technology. In addition, describe the objectives or results to be achieved by this invention.

ORIGINATOR(S)/INVENTOR(S)

- An inventor is a person who has conceived or contributed to an essential element of the invention during the evolution of the technology concept or reduction to practice.
- List originators/inventors in the order you would like them to appear on a patent application or other form of intellectual property protection.
- List all originators/inventors, even if not associated with Virginia Tech. List more than four inventors on an additional page.
- University originators/inventors or contributors listed on Attachment B – Royalty Sharing should keep VTIP informed of any change in address.

RELEVANT SPONSORSHIP AND OTHER AGREEMENTS

Identify and list all grants, contracts, and other sources of funds contributing to or possibly contributing to the conception and/or development of the invention. Accurate and complete sponsorship information is required to meet the obligations of Virginia Tech under sponsored research grants and contracts.

DATES OF CONCEPTION, REDUCTION TO PRACTICE, AND PUBLIC DISCLOSURE

List all dates and provide copies of any publication(s) or abstract(s), oral or written, as well as any proposed publications which mention or describe the invention in whole or in part. Accurate data is essential, as public disclosures affect patent rights in the U.S. and abroad.

Virginia Tech's Policy on Intellectual Property:

<http://www.policies.vt.edu/13000.pdf>

For more information about intellectual property at Virginia Tech:

http://www.research.vt.edu/intellectual_property/index.php