



NEW INVENTION NOTIFICATION (NIN)

University of Nebraska

General Instructions

The purpose of this New Invention Notification (NIN) form is to generate a written, dated record of your invention and to provide information from which the patent potential and commercial potential of your invention can be evaluated. The University needs this documentation to comply with most industrial contract requirements and the U.S. federal laws and regulations concerning grants and contracts. Please review the following information before completing the attached form.

- The NIN form is in Microsoft Word format and may be downloaded from the UNeMed website (www.unemed.com). Once completed, it may be returned electronically; however one hard copy with all signatures will need to be sent via campus mail (zip 6099), USPS, or fax (559-2182).
- A New Invention Notification 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. In accordance with the University of Nebraska Board of Regents Bylaw 3.10 and Policy 4.4.2, any such invention is to be promptly disclosed to the University.
- Identifying all individuals who contributed to the conception or development of the technology is very important. Please note that inventorship is **not** the same as authorship and will be determined according to U.S. patent law when a patent application is filed. When completing this form, it is best to list the potential **pool** of individuals who contributed to the conception and/or development of the invention.
- To fully and properly evaluate the invention, UNeMed **must** receive all data supporting the invention (tables, charts, graphs, presentations, manuscripts, etc).
- UNeMed will begin its internal review upon receipt of the signed, completed NIN. Questions or requests for meetings to discuss the NIN will be directed through the Primary Contact; however UNeMed encourages all potential inventors to participate as much as possible.
- Please do your best to complete as much of this form as possible. Incomplete NIN submissions may be delayed. If you have any questions, please contact UNeMed at 559-2468.
- Add spaces and/or table rows as needed; otherwise do not modify the form. If a question does not apply, please mark "N/A". If for any reason the information you need to add does not fit within the boxes, please feel free to add information as an attachment as necessary.

For advice on completing this NIN or for additional information, contact UNeMed. Upon completion of the NIN, please return one (1) signed copy, along with all supporting documentation to:

UNeMed
986099 Nebraska Medical Center
Omaha, NE 68198-6099
Phone: (402) 559-2468
Fax: (402) 559-2182
Email: unemed@unmc.edu
Website: www.unemed.com

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1. Title of Invention: Please provide a non-confidential title.

Modular Task-Specific Prosthesis

2a. Chronology of Invention: It is important to document when the invention was conceived and reduced to practice.

	Date (mm/dd/year)	Location and comments
Idea First Conceived	August, 2018	Subject presented with desire to play cello, which was not possible with existing prostheses. (Biomechanics Research Building)
Experimental Evidence of Invention (reduced to practice)	September, 2018	Design completed and prototype produced. Initial testing with subject performed. (Biomechanics Research Building)
First written description	October, 2018	Preparation for NIN. (Biomechanics Research Building)

2b. Have the Essential Elements of the Invention Been Communicated to Anyone Outside of your Laboratory, Either Orally or in Writing? (e.g. publication, thesis/dissertation, seminar, poster, meeting abstract, web page) Public disclosure of your invention prior to filing a patent application is likely to result in the loss of patent rights in foreign countries. The United States provides for a one-year grace period for the filing of a patent application following public disclosure. Please list any disclosures (including UN presentations) which described the invention.

☒ Yes ☐ No If Yes, please specify (e.g. date, name, circumstances).

Cello-playing device was disclosed to the current user, as well as the current user's parents (September, 2018).

2c. Do you Intend to Publicly Communicate the Essential Elements of the Invention in the Future, Either Orally or in Writing?

☒ Yes ☐ No If Yes, please specify planned date of disclosure.

Future publications and presentations.

3a. Provide a Non-confidential, Simple and Commercially Applicable Summary of the Invention. (This information will largely support marketing evaluation. Please include advantages, characteristics and industry applications.)

A novel prosthesis design with modular, easy-to-replace end effectors targeted for use in various task-specific activities (i.e. cello playing, violin playing, bike riding, swimming, pitching, basketball, and football).

3b. Detailed Description of the Invention: If necessary, additional descriptive information may be added as an appendix (e.g. data charts, graphs, publications, abstracts, grant applications, presentations).

See attached report.

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3c. What Are the Practical and Commercial Applications of the Invention? (i.e. what problem does it solve?)

Generalized body-powered prostheses are effective at gross movements (such as full-hand grasping), but are not robust in the performance of more morphologically or technically challenging tasks. The proposed apparatus allows for the use of a standardized prosthesis for a wide range of activities, far beyond the capabilities of existing body-powered prostheses, through the implementation of modular end-effectors which have been optimized for use in varied situations. These modular end-effectors are simple to replace, lightweight, and inexpensive; this allows for customization of the prosthetic device's capabilities to match the demands of the user and the activity.

3d. What Are the Advantages of Your Invention Over Currently Available Technologies? (i.e. what technology is currently used to meet this need and how is your technology better?)

Existing prostheses are generally not intended for specific activities. Additionally, those existing devices which are activity-specific can't be easily adapted to other specific tasks.

4. Funding Sources: Please list all funding sources for materials, equipment and/or salaries of all personnel involved in conception and development of the invention.

Funding Source	Name of Department, Company, Agency etc. (e.g. NIH, DOD, AHA, JDRF)	Grant number
Federal/Other Government Funds		
Corporate/Industrial		
Private/Public Foundation (e.g. AHA)		
University/Departmental		
Others (Please Specify)		
If Federal Funds, please provide the PI's department grant administrator contact info:		

5. Did This Invention Utilize Outside Sources of Materials or Confidential Information: Please list all agreements (e.g. MTA, CDA, consulting, contracts) involved in conception and development of the invention.

Source	Materials/Information	Type of Agreement and Date
	Polylactic Acid (PLA) filament	N/A
	Leaf Spring (Quantity: 2)	N/A
	M8x40mm Bolts (Quantity: 2)	N/A
	M8 Nuts (Quantity: 2)	N/A
	M3x20mm Bolts (Quantity: 4)	N/A
	M3 Nuts (Quantity: 4)	N/A

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	Compression Spring (Quantity: 1)	N/A
	Polyurethane (TPU) filament	N/A

6. Please List any Companies You Find Are/Might Be Interested in Your Invention. (Specific contacts are most helpful).

Name of Company	Contact Information
TRS Prosthetics: High Performance, Body Powered Prosthetics	3090 Sterling Circle, Studio A. Boulder, Colorado 80301

7. List any known pre-existing technology which your invention derives from, integrates or otherwise would be required to utilize. If none, click here: ☒

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8. Inventor Identification: Please include all *potential* inventors, including collaborators from other institutions outside the University of Nebraska. (We will consult with the Primary Contact on whether and how best to contact any outside potential inventors.)

ALL POTENTIAL INVENTORS AFFILIATED WITH THE UNIVERSITY OF NEBRASKA DURING THE CONCEPTION AND DEVELOPMENT OF THIS INVENTION MUST SIGN BELOW. BY SIGNING THIS NEW INVENTION NOTIFICATION FORM YOU HEREBY ASSIGN YOUR RIGHTS IN THIS INVENTION TO THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA.

To the best of my knowledge all statements and information provided in this New Invention Notification (NIN) form are true and complete. I understand and agree that all rights, obligations, and financial interests pertaining to or derived from the invention are as determined under the University of Nebraska Board of Regents Bylaws and Policies, including, but not limited to Bylaw 3.10, Policy 4.4.1, Policy 4.4.2, and all applicable campus policies. I also understand and acknowledge that the University has the right to change the Policy from time to time, including the percentage of net royalties paid to me. Further, I acknowledge that the percentage of net royalties paid to inventors is derived only from consideration in the form of money or equity received under a license, option, or material transfer agreement for licensed rights. Per Policy 3.2.8, any conflict of interest will be handled according to specific campus policies which may require disclosure of a personal interest in the form of potential revenue through commercialization of an invention described in a publication or presentation. I agree to assist the University of Nebraska and UNeMed in the evaluation, possible protection and commercialization of the invention as described in this NIN.

Primary Contact

Name: James Pierce	
Citizenship: United States	
Home Address:	
Work Address:	
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E-mail: jepierce@unomaha.edu	
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<input type="checkbox"/> UNMC <input type="checkbox"/> UNL <input checked="" type="checkbox"/> UNO <input type="checkbox"/> UNK <input type="checkbox"/> VA	
<input type="checkbox"/> Non University of Nebraska Inventor (please specify):	
Signature:	

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Additional Inventors

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Signature:	Signature:

Additional Inventors

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<input type="checkbox"/> Non University of Nebraska Inventor (please specify):	<input type="checkbox"/> Non University of Nebraska Inventor (please specify):
Signature:	Signature:

If more space is needed to identify all potential inventors, please provide the above information for each additional individual in an attachment.