INNOVATE CREATE-DESIGN-BUILD

National Instruments Innovation Design Competition for Young Entrepreneurs in Vietnam

Official Rule Book

Have you ever had an idea for a project that can become a business and benefit the local community? Bring it to life through this competition.

With our resources and support, you can make your ideas a reality.



















Contest Summary

The National Instruments Innovation Design Competition for Young Entrepreneurs in Vietnam is a unique opportunity for STEM (Science, Technology, Engineering and Math) students and young engineers, scientist and technologist to nurture their innovative and entrepreneurial spirit, and have a chance to win prizes of cash, NI design products and a trip to NI world headquarters in Austin, Texas USA.

The goal of the competition is to build innovation and entrepreneurship competencies among future and recent STEM graduates in Vietnam, and to submit market-ready projects that support the sustainable development of the local community

Organized by National Instruments **Planet NI** and the Arizona State University alliance for Building University-Industry Learning & Development through Innovation & Technology (**BUILD-IT**).

Planet NI, a National Instruments signature program, empowers engineers in emerging countries to achieve sustainable prosperity by providing increased access to NI technology. The program nurtures local innovation by supporting small and medium enterprises (SMEs), startups, and organizations that collaborate on projects to deliver prosperity and sustainable development in emerging nations through technology-based innovation and development.

BUILD-IT is a USAID (United States Agency for International Development) funded project managed by Arizona State University's Fulton Schools of Engineering. The project is based on the pillars of institutional policy, quality, curriculum, faculty innovation, and technology, and leverages deep and diverse government-industryacademic partners that share a goal of tightly linking STEM (science, technology, engineering, and math) instruction in Vietnamese higher education institutions to the needs and capabilities of industry partners to produce graduates who can lead inclusive, technology-based growth

Through this competition selected teams will have access to NI's development platforms to design prototypes and solutions that meet local challenges in Vietnam. In addition to these tools training and consulting is available to help turn value-added ideas into functional prototypes using the NI myRIO embedded hardware platform and NI LabVIEW system design software.

From inexpensive medical devices to building the world's fastest vegetable oil-powered vehicle, we want to see how students like you are engineering a better world using NI's development environment.

See the links below for the latest information about the competition or email us at asuvn@asu.edu

Website: www.builditvietnam.org

facebook.com/PlanetNI

The possibilities are endless, so submit your design idea now.

Prize Information

Submit the most innovative and relevant prototype to win prizes. Judging panel will select the top ten projects to advance to the prototype round, and then choose one winner from those finalists. Paper submissions featuring videos that exemplify their technical applications will also be required.





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First Prize

- \$600 USD cash
- 1 NI myRIO Embedded Student Design Device
- Opportunity to present project paper at global NI Week conference in Austin, Texas USA in May 2017
- Airfare and accommodation for one (1) member from the winning team to travel to attend NI Week 2017¹⁾
- Paper published on ni.com

Second Prize

- \$300 USD cash
- 1 NI myRIO Embedded Student Design Device
- Paper published on ni.com

¹ NI and the competition partners are not responsible for visa processing and fees

Important Dates

- August 15, 2016 Launch Competition call for abstracts
- September 30, 2016 closing for abstracts submission
- October 14, 2016 Top 10 abstracts announced
- January 27, 2017 Closing for final project submissions
- March 3, 2017 Awards ceremony
- May 2017 NI Week in Austin, Texas USA

Eligibility Criteria

To be eligible to enter this competition, a team must be made up of three (3) or fewer individuals, all of who must:

- Be ±3 years from college or university graduation
- Be or have been enrolled as a student in a STEM (Science, Technology, Engineering and Math) academic program of a college or university, that awards associate's, bachelor's, master's, or doctorate degrees
- Have an innovative idea for a product that could become a new business and benefit the local community
- · Have one professor or industry professional as their project adviser
- Agree to use NI myRIO and LabVIEW products in their project application
- · Write an original technical paper, including an abstract
- Submit an abstract for the paper by 23:59 on September 30, 2016, which is the closing date for abstract submission
- Submit the final paper and all related materials no later than 23:59 on January 27, 2017, which is the closing date for final project submission

The employees of NI and its subsidiaries, affiliates, advertising agencies, and



















promotional partners and the relatives and household members of those employees are NOT eligible to enter.

This contest is restricted to the country of Vietnam only.

Competition Registration and Submission Guidelines

Step 1: Registration and Abstract Submission

August 15, 2016 - Call for abstract submission begins September 30, 2016 – Final date for abstract submission

Abstract Submission

- 1. You are required to complete the first page of the abstract template, which contains the name of the project and contact information, as well as part of the second page, which includes the abstract, project introduction, and design methodology only.
- 2. In the design methodology, please reference only ONE graphic that best describes your application as well as ONE block diagram that can describe how your application works.
- 3. There are no limitations on the use of graphics (charts, pictures, and so on) for the abstract and project introduction.
- 4. Provide a short, benefits-oriented caption for each graphic and block diagram. Use a high-resolution scanner to scan the photo. The minimum resolution is 300 dpi.
- 5. NI provides the selected teams a kit that includes one license of LabVIEW Student Edition and NI myRIO. No additional accessories, kits, or parts are provided. Sensors, actuators, breakout connectors, and so on are the responsibility of the team.
- 6. Email the following to <u>asuvn@asu.edu</u> no later than September 30, 2016:
- 7. Completed abstract with graphics (for abstract template click here/ page 5)
- A scanned copy of your author biography form with the email subject header "2016 NI Innovation Design Competition for Young Entrepreneurs Submission" (click here/ page 15)

If you have any questions, email us at asuvn@asu.edu

Stay tuned to our website <u>www.builditvietnam.org</u> for updates on the competition and our Facebook page at <u>www.facebook.com/planetni</u> for the winner announcement.

The judges will review the abstracts and notify the winning abstract teams via email by October 14, 2016. Selected teams will receive more details on next steps including mentorship, training courses, and hardware shipment.

- ABSTRACT SUBMISSION TEMPLATE -



















Project		
Name of project:		
Competition Track: Planet NI		
Contact Information		
Name:		
School:		
Department:Yea	ar:	
Email:Mo	bile Phone:	
Mailing Address:		
Project Adviser		
Name:		
Title:Org	ganization:	
Email: Mo	bile phone:	
Team Members		
1. Name: Em	ail:	Mobile phone:
2. Name: Em	ail:	Mobile phone:
3. Name: Em	ail:	Mobile phone:



















Project Paper

1.Abstract

<Briefly introduce the project and its goals and discuss your final outcomes/predictions.>

Project Introduction

<Describe the problem you are trying to solve. Describe the innovations you want to implement and the expected outcome. Tell us the ways you think you can use NI hardware and software to carry out the implementation.>

2. Design Methodology

<Explain the process or phases of your project. You may include a flowchart or any materials that are relevant in explaining the process flow and its timelines. >

3. Functional Description (Final Project Paper)

4. Design Architecture (Final Project Paper)

5. Results and Discussion (Final Project Paper)

6.Conclusion (Final Project Paper)

Abstract Selection—Judging Criteria

An internal panel of judges will evaluate all abstract entries submitted by September 30, 2016. They will select the winning abstracts based on the criteria listed below and notify winning abstract teams by October 14, 2016. Once notified, the selected teams can begin working on their final papers.

Email your completed abstract to <u>asuvn@asu.edu</u> with the email subject header "NI Innovation Design Competition for Young Entrepreneurs Abstract Submission."

Judging Criteria

- 1. What are the benefits of the solution and are those benefits clearly articulated? (level of innovation and creativity, cost-effectiveness, and efficiency of the solution)
- 2. What are the impacts (economic, environmental, or social) and relevance of the solution?
- 3. Is the product or service one that can become commercially viable or turned into a business?
- 4. How thorough and detailed is the overall project submission? The judges will evaluate the abstract submissions using their discretion and all decisions of the judges are final. Project designs and project papers will be judged using the following evaluation grids.



















Points Awarded	Selection Criteria
15 Maximum	Innovation
15 Maximum	Benefit of the Solution to the Community
10 Maximum	Future Commercialization and Validation Plans
10 Maximum	Practicality (Impact, Cost, and Efficiency)

NI Hardware and Software Information

NI will provide the following software and hardware items to students free of charge for the duration of the competition. NI will offer students access to NI's development platforms so that they can use NI technology to benefit local communities in Vietnam. NI will provide tools, training, and consulting to help turn value-added ideas into functional prototypes using NI myRIO and LabVIEW.

LabVIEW

LabVIEW is system design software that provides engineers and scientists the tools they need to create and deploy measurement and control systems through unprecedented hardware integration. LabVIEW inspires engineers to solve problems, accelerates their productivity, and gives them the confidence to continually innovate. For more information, visit ni.com/labview.

NI myRIO

NI myRIO places dual-core ARM Cortex-A9 real-time processing and Xilinx FPGA customizable I/O into the hands of students. With its onboard devices, seamless software experience, and library of courseware and tutorials, NI myRIO provides an affordable tool that students can use to "do real engineering" in one semester. For more information, visit ni.com/myrio.

Kit Contents

- NI myRIO Module and DVD Kit, NI myRIO Software Suite 10 DVD Set
- Standard USB Device Cable
- Power Supply
- NI Screwdriver
- Audio Cable

No additional hardware or software will be provided as part of the support for the competition.



















Step 2: Final Paper Submission

January 27, 2017—Closing date for final paper submissions March 3, 2017—Results and winners announced

By Email

Email your completed paper (with graphics) and a scanned copy of your signed right to publish form and author biography form to <u>asuvn@asu.edu</u> with the email subject header "2016 NI Innovation Design Competition for Young Entrepreneurs Submission."

Please email the following materials:

- 1. An electronic (soft) copy of your paper with embedded graphics (in full color, if you have color graphics) in a Windows format compatible with Microsoft Word (Click here for the final paper template page 12)
- 2. Signed right to publish form (Click here for the form page 14)
- 3. Author biography form (Click here for the form page 15)
- 4. Video submission (link to an uploaded site is acceptable)

Final Paper Submission

- 1. You are required to complete the first page of the template (name of the project and contact information) to complete the final part of the project, which includes design architecture, functional description, results and discussion, and conclusion.
- 2. Include diagrams and user interface images to show and describe the various system functions in the design architecture.
- 3. Include final image(s) of the project and video links (if any) in the results and discussion section to showcase the project in more detail.
- 4. Provide a short, benefits-oriented caption for each graphic and block diagram. Use a high-resolution scanner to scan the photo. The minimum resolution is 300 dpi.

Video Submission Guidelines

- 1. Videos should be five (5) minutes or less in length.
- 2. Acceptable formats include .wma, .flv, and .mp4.
- 3. 300 kbps videos should be rendered at 15 fps or higher.
- 4. Audio should be mono 32-bit or higher (sound is the hardest part—make sure you capture good quality sound).
- 5. Videos should be deinterlaced if possible.
- 6. Videos should contain no background music.

Paper Specifications

We ask that you conform to the general NI case study model (ni.com/case-studies) to ensure consistency among papers. Your paper must be in English using Times New Roman size 12 font. This packet includes a template with formatting guidelines; please use this template to create your paper. The maximum number of words you can include



















in your paper is 1200. We reserve the right to reject any paper that does not conform to NI case study style.

NOTE: Please keep printed and electronic backup copies of all your work because you will be asked for these if the files we receive are corrupted. Scan the signed right to publish form and author biography form and attach them to the email. Your paper will be disqualified if we do not receive all of these items.

NI reserves the right to reject any contest entries that are not accompanied by the required materials.

- FINAL PAPER SUBMISSION TEMPLATE -

Project	
Name of Project:	
Competition Track: Planet NI	
Contact Information	
Name:	
School:	
Department:	Year:
Email:	
Mailing Address:	
Project Adviser	
Name:	
Title:	Organization:
Email:	
Team Members	

1.	Name:	Email:	Mobile phone:
2.	Name:	Email:	Mobile phone:
3.	Name:	Email:	Mobile phone:









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Project Final Paper Submission

- 1. Abstract
- 2. Project Introduction
- 3. Design Methodology
- 4. Design Architecture <Explain the different system functions with diagrams, interface images, and so on.>
- 5. Functional Description (Final Project Paper)

<Include a more technical explanation that describes the functions of the system in your project and the interactions that can occur between the system and its actors (through the interfaces).>

6. Results and Discussion (Final Project Paper) <This may include the challenges you faced, the solutions to your challenges, the benefits of using LabVIEW and NI tools, your plans to commercialize your product, and your project's impact on social and environmental factors (for example, testing energy-saving light bulbs helps decrease costs and save energy).>

<Please insert image(s) of the project with captions. Insert video links (if any) here.>

7. Conclusion (Final Project Paper) <Summary of Introduction and Overall Findings>

Final Paper Judging Criteria

A panel of judges will evaluate all final paper entries and select two winners according to criteria that include the following:

- 1. What are the benefits of the solution to the community, and are those benefits clearly articulated?
- 2. Innovativeness, cost-effectiveness, and efficiency of the solution
- 3. Impact and relevance of the solution
- 4. How technically challenging is the application?
- How well did the project submission follow the directions outlined in the National Instruments Young Entrepreneurs Innovation Design Competition 2016 Submission Template

Points Awarded	Selection Criteria
20 Maximum	Innovation
10 Maximum	Benefit of the Solution to the Community
20 Maximum	Future Commercialization and Validation Plans
20 Maximum	Practicality (Impact, Cost, and Efficiency)
10 Maximum	How Technically Challenging is the Project
20 Maximum	Work Design











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•	Publication as a	stand-alone case study	/	
•		ational Instruments ma ogs, or direct mail item	rketing materials, including	but not limited to
	Publication	of entire text or excerpt	s, including all charts, graph	is, and visual aids, in a
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trade or industry journal publication I understand that each usage of the work(s) will credit the author named above and will include the following copyright notice:

Authorized signature of author or author's representative	Date
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NI Week 2017 Event Presenter's Biography Request Form

Full Name:
University Name/Affiliation:
University Postal Address:
State/Country:
Mobile phone:
Email:
Name of the Project:

Project Description:

 <brief description of project, its function, the design, how it benefits society/the environment, tools used for it, and so on>

Short Biography (50 words or less):

<short descriptions of each of the team members>

If your team wins, is one member of the team available and willing to travel to Austin, Texas, for NI Week in May 2017?







Yes

















General Rules and Disclaimers

Official Rules, Terms, and Conditions

National Instruments Corporation ("National Instruments") and its competition partners sponsor the Young Entrepreneurs Innovation Design Competition - in order to recognize and reward excellence and innovation of applications using National Instruments' LabVIEW®.

Entry

Note that by entering this competition, teams agree that entries will not be maintained in confidence and that all entries (including abstracts and papers) become the property of National Instruments and will not be returned. National Instruments is not responsible for late, damaged, incomplete, illegible, lost, delayed or misdirected entries.

Winners and Finalists

Every member of a winning or finalist team must sign a declaration of eligibility, prize claim form and liability and publicity releases in order for the team to redeem its prize. Every team that does not return the declaration, claim form and release to National Instruments within 30 days automatically forfeits its prize.

Prizes

All prizes are non-transferrable and National Instruments will not substitute prizes or offer cash redemptions for prizes. Teams are responsible for all taxes and duties payable on any prize and National Instruments will neither pay nor reimburse any taxes or duties payable on any prize.

Odds of winning a prize cannot be determined objectively because they depend on the quality of eligible entries received and the subjective opinion of the judges.

By entering this competition, each and every member of a team (1) consents to the use of their names, pictures, voices, evaluation data, biographical data, and likenesses in National Instruments' advertising and promotional materials without additional compensation; (2) agrees that National Instruments and its subsidiaries, affiliates, advertising agencies and promotional partners are not liable for injury, loss, or damage of any kind resulting from participating in this contest or from the acceptance or use of any prize awarded; and (3) warrants that their entry is original, that no false information is given, and that no other person owns or has any rights to any element of the entry, including any copyrights in it. National Instruments will verify all declarations of eligibility, prize claim forms, and liability and publicity. National Instruments' will exercise its own discretion to interpret all contest rules and to award of the prizes and its decisions are final.

By entering and participating in the contest, every member of a team: warrants and represents that he or she has read these rules and terms and conditions and agrees to comply with them; warrants and represents that he or she has read National Instruments' Terms of Use (available at

ni.com/pdf/legal/en/terms_and_conditions_Singapore.pdf) and agrees: to comply with them; and that his or her team's submission is a "Communication" under those Terms of Use; warrants and represents that the team's submission is not and will not be subject to



















any restrictions or requirements on use, copying, modification, disclosure or distribution by National Instruments and its subsidiaries, affiliates, advertising agencies and promotional partners including without limitation: requirements that any code incorporated into, commingled with, or otherwise associated with the submission ("Associated Works") be disclosed in source code form to others, requirements that creation of derivative works of any Associated Work be permitted, any other "open source code" terms, and agrees that any terms, conditions, agreements or legends contained in the submission that conflict with or limit the provisions of clause (2) or (3) of this paragraph shall be of no effect.

BY PARTICIPATING IN THE CONTEST AND, IN THE CASE OF A WINNER, ACCEPTING THE PRIZE, EACH CONTESTANT AGREES AND ACKNOWLEDGES (A) THAT NATIONAL INSTRUMENTS, COMPETITION PARTNERS AND THEIR PARENTS, DIVISIONS, SUBSIDIARIES, AFFILIATES, ADVERTISING, PROMOTION, AND PUBLIC RELATIONS AGENCIES, AND THE RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, REPRESENTATIVES, ATTORNEYS, AND AGENCIES OF EACH (COLLECTIVELY HEREIN REFERRED TO AS THE "SPONSOR PARTIES") SHALL HAVE NO LIABILITY WHATSOEVER, FOR ANY INJURIES OR DAMAGE INCURRED IN WHOLE OR IN PART FROM SUCH CONTESTANT'S PARTICIPATION IN THIS PROMOTION, ACCEPTANCE, POSSESSION, USE OR MISUSE OF THE PRIZE, OR PRODUCT OR SERVICE OBTAINED THROUGH USE OF THE PRIZE, OR ANY MALFUNCTION OF ANY PRIZE AWARDED OR ANY SUCH PRODUCT OR SERVICE, AND (B) TO RELEASE, INDEMNIFY AND HOLD HARMLESS EACH OF THE SPONSOR PARTIES FROM ANY AND ALL DAMAGES, INJURIES, DEATH, LOSSES, CLAIMS, ACTIONS, DEMANDS, OR LIABILITIES THAT MAY ARISE OUT OF OR IN CONNECTION WITH SUCH CONTESTANT'S PARTICIPATION IN THIS CONTEST, ACCEPTANCE AND/OR USE OF ANY PRIZE OR PRODUCT OR SERVICE OBTAINED THROUGH USE OF THE PRIZE, OR ANY MISUSE OR MALFUNCTION OF ANY PRIZE AWARDED OR ANY SUCH PRODUCT OR SERVICE; REGARDLESS OF WHETHER CAUSED OR CONTRIBUTED TO BY ANY NEGLIGENCE ON THE PART OF ANY SPOSOR PARTY (INCLUDING WITHOUT LIMITATION NATIONAL INSTRUMENTS) OR OTHERS.

National Instruments nor the competition partners make no warranty, representation, or guarantee, express or implied, in fact or in law, relative to any prize, including, but not limited to, its validity, quality, merchantability, fitness for a particular purpose.

Any team or team member that provides false information obtains entries by fraudulent means, or that National Instruments determines is otherwise in violation of these official rules and terms and conditions in an attempt to obtain any prize may, in National Instruments' discretion, be immediately disqualified from the contest and/or prosecuted to the fullest extent of the law. Contest rules may change from time to time. NI will provide notice of any changes at www.builditvietnam.org, and we will contact you with further information when necessary. Each team is responsible for all (if any) applicable fees, insurance, federal, state and local taxes, incidentals, and any other unspecified expenses associated with acceptance or use of any prize it might win.

National Instruments reserves the right, at its sole discretion, to cancel, terminate, modify or suspend the contest in the event the contest is not capable of completion as planned or the administration, security, fairness, integrity or intended conduct of the contest is otherwise compromised (including without limitation infection by computer virus, bugs, tampering or technical failures of any kind). In the event National Instruments takes any of the actions discussed in the immediately preceding sentence, National Instruments will provide notice thereof at www.builditvietnam.org, and we will contact you with further information when necessary. Any and all disputes and causes of action arising out of or connected with this contest or the prize shall be resolved exclusively before the courts located in Singapore (to which each team and team





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member, by making a full or partial submission, and, in the case of the winner, accepting the prize, consent to personal jurisdiction). Additional restrictions may apply.

How will my entry be potentially used?

Other than what is set forth below, we are not claiming any ownership rights to your entry. However, by submitting your entry, you:

Are granting us an irrevocable, worldwide right and license, for which you have received a sufficient remuneration, for the duration of the protection of the copyrights to: (i) reproduce, copy, modify or alter your entry with all known all later developed means; (ii) use, review, assess, test and otherwise analyze your entry and all its content in connection with this and any future contests sponsored by National Instruments; and (ii) feature your entry and all its content in connection with the promotion of this Contest in all media (now known or later developed);

Except where prohibited, hereby waive any and all so-called "moral rights" or any similar right that you may have or hereinafter acquire in the entry and all its content, and to the extent that you cannot, you hereby consent to us doing or omitting to do any act that would otherwise infringe such "moral rights" or any such similar rights;

Agree to sign any necessary documentation that may be required for us and our designees to make use of the rights you granted above;

Understand and acknowledge that National Instruments and other entrants may have developed or commissioned materials similar or identical to your submission and you waive any claims you may have resulting from any similarities to your entry;

Understand that we cannot control the incoming information you will disclose to our representatives in the course of entering, or what our representatives will remember about your entry. You also understand that we will not restrict work assignments of representatives who have had access to your entry. By entering this Contest, you agree that use of information in our representatives' unaided memories in the development or deployment of our products or services does not create liability for us under this agreement or copyright or trade secret law;

Understand that you will not receive any compensation or credit for use of your entry, other than what is described in these Official Rules.

Please note that following the end of this Contest your entry may be posted on a website selected by us for viewing by visitors to that website. We are not responsible for any unauthorized use of your entry by visitors to this website. While we reserve these rights, we are not obligated to use your entry for any purpose, even if it has been selected as a winning entry.

What other conditions am I agreeing to by entering this contest?

By entering the contest you agree:

To abide by these Official Rules.

That National Instruments' decisions will be final and binding on all matters related to this Contest.

That by accepting a prize, National Instruments may use your name and place of residence online and in print, or in any other media, in connection with this Contest, without payment or compensation to you.



















The laws of Singapore will govern this Contest, and you consent to the exclusive jurisdiction and venue of the courts of Singapore for any disputes arising out of this Contest.

Privacy

National Instruments' Privacy Policy will apply to this Contest and to all information that we receive from your entry. Please read the Privacy Policy on the website (ni.com/legal/privacy/unitedstates/us/) before accepting the Official Rules and submitting your entry. Please note that by accepting the Official Rules you are also accepting the terms of the Privacy Policy.

















