

LIU K'Nex STEM Design Challenge 3-Day Camp at Gettysburg Middle School

Students choose a theme to focus on for the 3-Day camp. Certified teachers with up-to-date clearances facilitate small groups of students working through a multitude of challenges within a particular theme.

Cost: \$150

Camp Dates: June 24-26, 2019

Time: 9:00 AM - 3:00 PM

Ages: 10-14 as of the 1st day of camp

Bring a packed lunch, drink and snack

Online Registration: <http://goo.gl/forms/hs03P5sBQJ>

Online Payment: "submit payment to"
designchallenge@iu12.org



Choices for the LIU STEM Design Challenge Camp

Breakout Challenge: Teams will be creating puzzles and riddles to unlock the next clues in a breakout game as one part of this challenge. Selecting an adventurous and engaging theme, creating keys, hint cards, decoder devices and rules and making sure the game works before the Parent Showcase will test collaboration, creativity, critical thinking and communication skills of the teams.

Out of a Box Challenge: What can you engineer from a cardboard box? That is the challenge that teams of 4 will work through as they select their team theme & construct 3-D designs (i.e. restaurant, city, castle, aquarium, fleet of planes, ships or vehicles). Team members will bring deconstructed cardboard from home to enhance their designs.

Lego Robotics Challenge: Partners will work together to create a machine that will move 3 objects at least 6 inches across a table and "crane" that will pick up the object, move it at least 6 inches and set it back down. Your team can choose the objects that need to be moved. While learning how to build a lego robotics there will be daily opportunity for testing designs in battle bot competitions.

Theater Costume and Set Design Challenge: Design & create furniture and clothing from recycled materials to complement a theatrical production. Mobiles, kinetic sculpture, and battery-powered accent pieces can be used to accessorize. By designing, building, testing and re-designing, improved original fashions, accessories, and furniture will be created.

Theatrical Production Challenge: Do you have a story to tell and want to see it come alive on a stage? Draft and revise a short skit or play that will share the story with a larger audience. Work with the Theater Costume & Set Design Challenge team to create the set and costumes needed to fully tell the story.

Product Innovation Challenge: Teams are challenged to develop a new product for the home. This product can be anything that you can use in your home and it must be environmentally friendly. This product could be (but not limited to) a new way to power your home, a new type of appliance, or a new gadget for home entertainment and makes the world healthier, cleaner and safer. As an added bonus teams can design the home with multiple innovative products. Team members will bring deconstructed, recycled materials (cardboard & plastic) from home to enhance their designs.

Research Outpost K'Nex Challenge: Teams will design and build a research outpost that includes a rocket to transport researchers, a way to generate energy and purify water to support the work site, and living quarters w/areas for sleeping, food prep, entertainment, and bathroom facilities. As an added challenge, design and construct a a rover with a robot that performs a task that makes the world healthier, cleaner, or safer.

Mini-Golf Course K'Nex Challenge: As a team, design & construct a 9-hole mini golf course around a selected theme. In the design, include a bridge that spans twelve inches, symbolic landmarks, amusement park like rides and a tower with a revolving restaurant. As an added challenge, program Sphero to successfully navigate the golf course.



LIU K'Nex STEM Design Challenge 3-Day Camp

Option 1 - ONLINE REGISTRATION <http://goo.gl/forms/hs03P5sBOJ>

& Online Payment via PayPal at designchallenge@iu12.org

Option 2 - PAPER REGISTRATION

Camp Location: _____

Camp Time: 9 AM - 3 PM Ages 10 – 14

Student Name _____ Student Age ____ / ____

Birthdate

Address _____

Street

City

State

Zip

Phone _____ Email _____

Please indicate (ONE) STEM Design Challenge your child would like to participate in for the week.

Return completed registration form with \$150.00 payment, per student to:

LIU #12

Attn: Barb Morgan
65 Billerbeck Street, PO Box 70
New Oxford, PA 17350

Questions?

Phone: 717.624.6447

Fax: 717.624.6589

Email: bamorgan@iu12.org



Registration Guidelines

- > **Registrations will be accepted up to 2 weeks before camp begins**
- > Registrations will be processed in the order received
- > A registration is complete **when the registration form and payment-in-full are received**
- > **Payment may be made via Pay Pal, check, or money order**
- > Registration forms may be returned via on-line form or U.S. mail
- > Participation will be confirmed through e-mail or U.S. mail. E-mail, if available, will be the primary method of communication
- > Following confirmation, **medical forms must be completed and returned**

Refunds will be granted in the following increment

A full refund will be granted until May 31, 2019