

Austintown Fitch High School

STEM Newsletter



September 2017

Calendar

Friday, Oct. 6th- YSU

Manufacturing Day Field Trip all
STEM students

Wednesday, Oct. 11th- 2hr.

Early Dismissal

Friday, Oct. 13th- NEOEA Day,

No school for students

Saturday, Oct. 14th VEX

Competition at Perry High
School

Friday, Oct. 20th- STEM

Ambassadors (11th & 12th
grade to AIS)

Friday, Oct. 27th- End of 1st
nine weeks



Students volunteered as mentors during the STEM summer program, Camp Invention for students in Grades 1-5. Pictured (from top left) are Ethan, Marcellena, Tyler and (from bottom left) Sam, Payton, and Jared.



Many students are submitting their unique 3D designs for judging and competition at the First Annual YSU National Manufacturing Day event taking place on October 6th.

Greetings STEM Families,

It has been an exciting and engaging first month of the STEM Program at Austintown Fitch High School. Students are hard at work in their Introduction to Engineering (9th grade), Principles of Engineering (10 grade), Computer Integrated Manufacturing (11th grade) and Engineering Design & Development (12th grade) courses. In addition, this is the first year for the Computer Science Department at Fitch High School. All of these courses are showcased in this monthly newsletter. Read and learn what STEM is all about in Austintown!



Chad specially designed the Fitch STEM logo encompassing all areas of STEM.

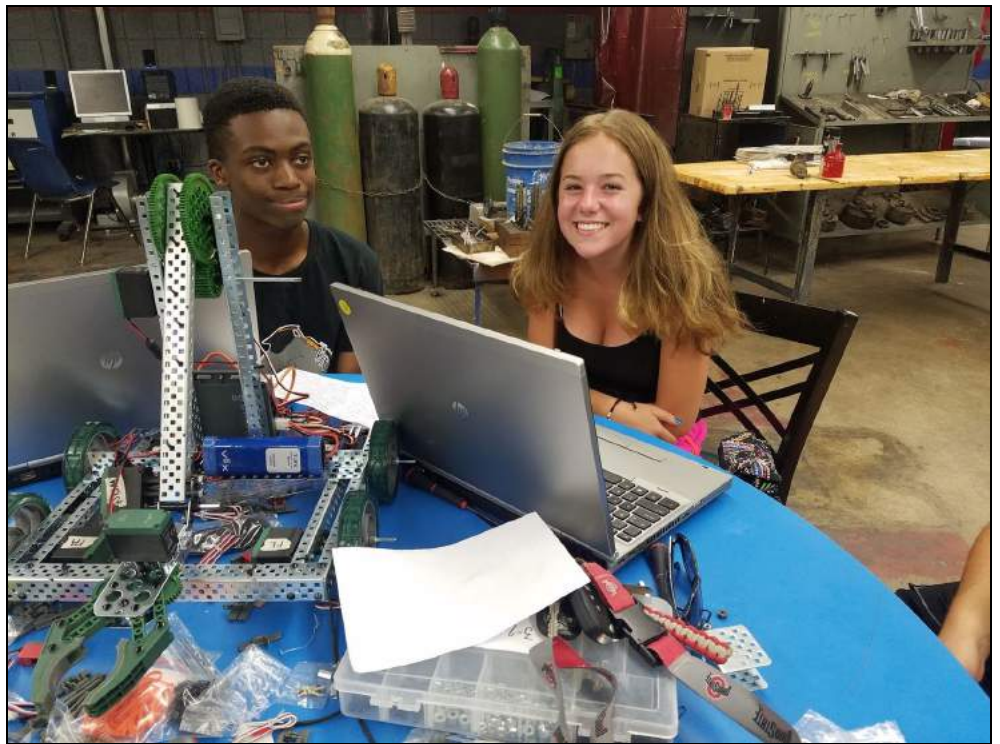


Jared and Sam mentored students during the STEM summer program, Camp Invention.



[Click here](#) to see a video summarizing this year's VEX Robotics Competition, In the Zone. The mission is to strategically stack cones while acting as defense for your opponent. For information on how to sponsor the team click the link below.

[VEX Sponsorship Form](#)



Tre and Sydney preparing for VEX Competition over the summer. The first competition is October 14th at Perry High School.



Junior STEM student, Erica, concentrates while putting on a motor while beginning their VEX build for competition.



Jared, Marcellena, and Sam helped Camp Invention students launch bottle rockets during this summer program.



Chad assisted students with bridge-building during the STEM Ambassadors program on September 22.



Select students will be competing in the VEX Robotics Competition at Perry High School on October 14th. For information on this year's challenge [click here](#). To access a sponsorship form [click here](#).



Hannah and Dylan helped AIS students build simple gear trains using various screwdrivers and wrenches.

Introduction to Engineering

- ★ In Introduction to Engineering Design (IED) students began learning about the engineering process and developed skills working through the design process, technical sketching, and product development. They learned how to sketch isometric, oblique, perspective and multi-view sketches of various object in preparation for using 3D modeling software and making their own creations.

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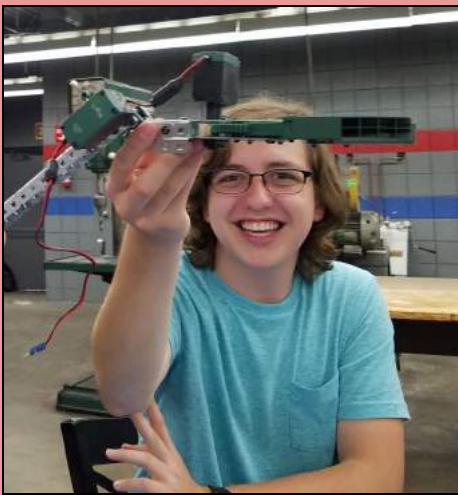


Chris assists a student during the STEM Ambassadors Program on how to make a circuit to light bulbs, turn fan blades, and signal an alarm.

- ★ Students started and organized the *STEM Ambassadors Program*, which focuses on introducing STEM skills and equipment to students at lower grade levels. Currently, students are going weekly to AIS and teaching 5th graders hands-on lessons. Some lessons include making circuits to light bulbs and turn fan blades using snap circuit kits, and investigating simple machines and how they contribute to compound machines.



Jared and Sam eating lunch with their younger peers during *Camp Invention*.



Chad displaying his claw, designed to grasp cones for VEX competition.

Principles of Engineering

- ★ In Principles of Engineering (POE) students had built simple machines and subsequently compound machines and manipulated speed, distance, force and function to complete tasks. They gained a better understanding of these mechanisms through the application of theory-based calculations accompanied by lab experimentation and inquiry-based learning.
- ★ Students established roles in the classroom and have created a logo, website, and jobs in the *STEM Ambassador Program*, which is responsible for STEM outreach and teaching lessons to students at AES and AIS.
- ★ Students are researching the VEX Robotics Competition and creating a team and main design of the robot. They are also building, programming, and troubleshooting their robot in preparation for competition at Perry High School on October 14th. For more information about this year's competition [click here](#).

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ProgressBook®
ParentAccess

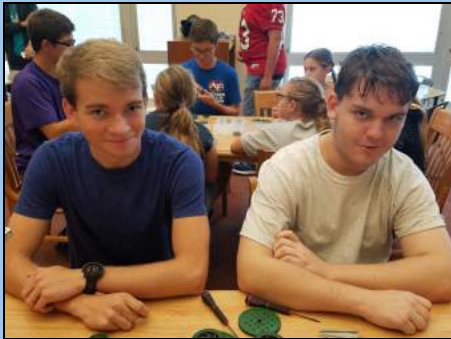
Parents can access student's grades by logging into Progress Book. Log in information is the same as last year.



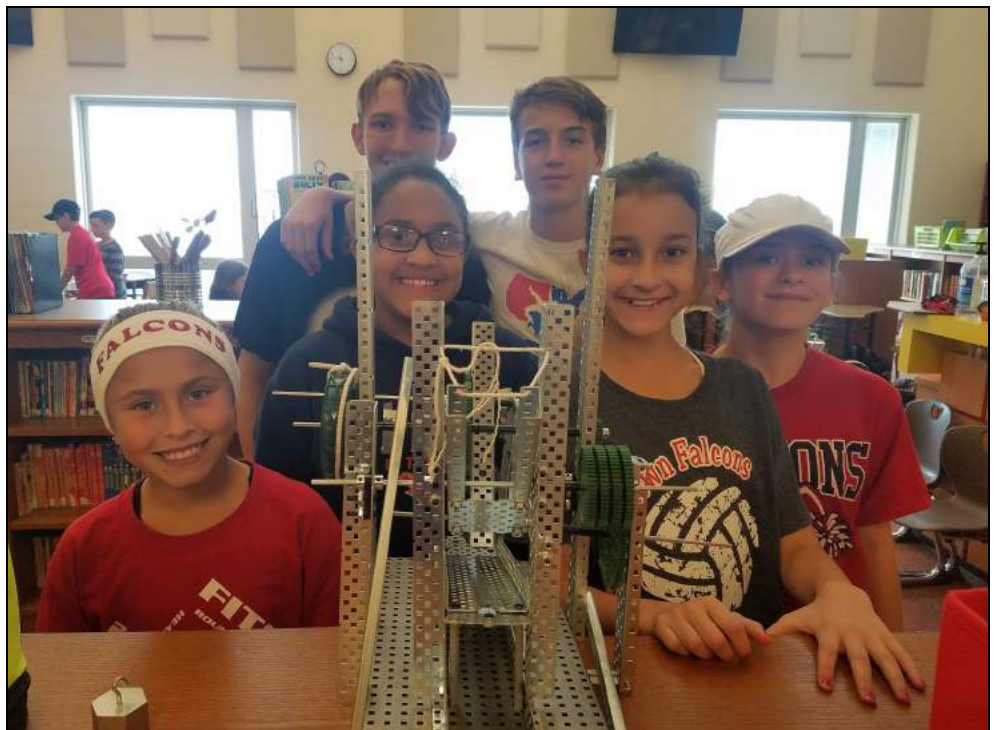
It's a known fact that our very own Ms. Smith is a farm girl at heart. She brings her own farm fresh eggs to school.



Mr. Penk treated all of the hard-working STEM students who came over the summer to prepare for VEX Competition to a pizza party!



Jackson and Nick were all smiles while instructing AIS students during the STEM Ambassadors visit to AIS on September 22.



Sam and Zack explained and demonstrated the use of compound machines on September 29th during the STEM Ambassadors Program at AIS.



Anthony and Elijah assisted students with the creation of circuits during the STEM Ambassadors Program at AIS.

Computer Integrated Manufacturing

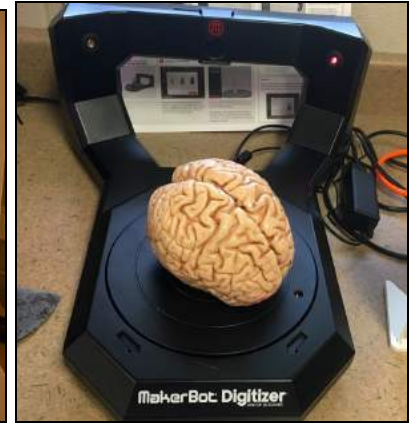
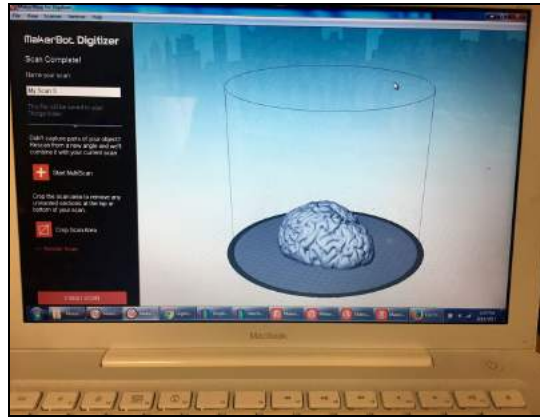
- ★ Students are reviewing basics of programming and automation as it pertains to manufacturing and VEX robotics systems. As a prelude, they created flowcharts for modeling computer systems.
- ★ Students are researching the VEX Robotics Competition and creating a team and main design of the robot. They are building, programming, and troubleshooting their robot in preparation for competition at Perry High School on October 14th. For more information about this year's competition [click](#)

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[here.](#)



5th grade students were all smiles during the STEM Ambassadors Program at AIS. Fitch STEM students taught lessons during that time in the library. Fun was had by all!



Our new 3D scanner allows students to scan real-life objects, create a 3D image, and print using one of our 3D printers.

Engineering Design & Development

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- ★ Students are researching the VEX Robotics Competition and creating a team and main design of the robot. They are also building, programming, and troubleshooting their robot in preparation for competition at Perry High School on October 14th. For more information about this year's competition [click here.](#)
- ★ In Engineering Design & Development (EDD) students are creating "Element A", which focuses on finding and establishing validity of a problem. This is critical for future research and development of their problem statement for the senior research project.



Students used teamwork to create their circuit connected in parallel to turn on a light bulb during the STEM Ambassadors Program at AIS.

```
@rwyant95/Strings
No description

share stop fork

1 #10 Printing Strings
2
3 #Print 'Monty Python' to the console
4
5 print('Monty Python')
6 print('-----')
7
8 #11 Variables
9
10 #Declare a variable called the_machine_goes and set to the string value of Ping! and then
    print the statement
11
12 the_machine_goes = 'Ping!'
13
14 print(the_machine_goes)
15 print('-----')
16 #12 String Concatenation
17
18 #Life 'of' Brian
19 #wrong way
20 connect = 'Life' + 'of' + 'Brian'
21 print(connect)
22 #right way
23 join = 'Life' + 'of ' + 'Brian' #need a space after your string in order to get the spacing
    on the interface.
24 print(join)
25
26 together = 'Spam ' + 'and ' + 'eggs'#This is what codecademy wants you to type out.
27 print(together)
28 print('-----')
```

Computer Science

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SCIENCE

- ★ Students are learning the beginning stages of code and different type of string methods using Python. Students will be using these learned skills to create Apps and games as the semester continues.



The Austintown Local Schools Canfield Fair display is shown above. The theme for this year was “STEM” and it showcased many of the innovative projects and happenings in the STEM Program district-wide!

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[Austintown STEM Website](#)
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[Fitch STEM Student Website](#)

