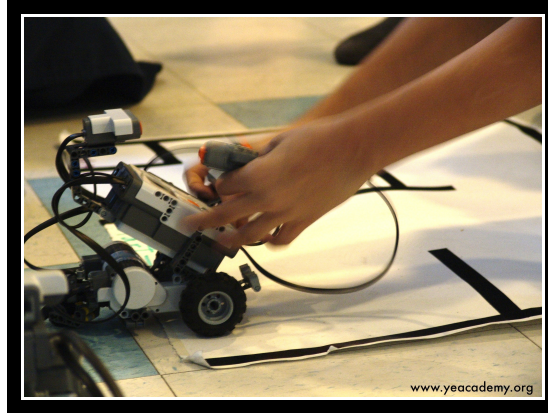


Young Engineers Academy Summer Camp

www.yeacademy.org



As-salaamu-alekum Dear Parents and Students,

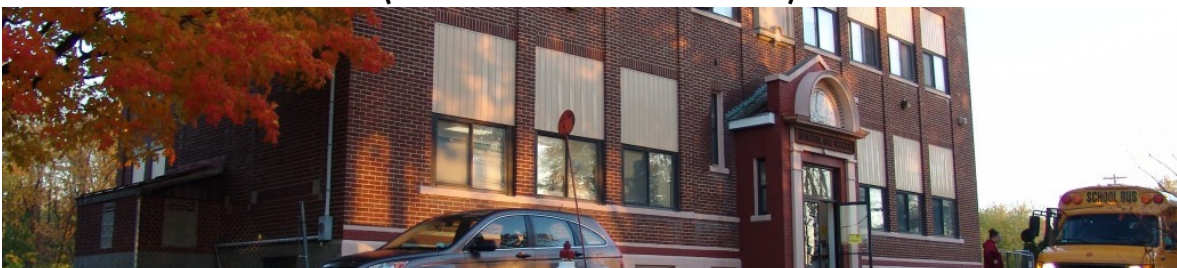
The following is a description of the Young Engineers Academy Summer Camp.

Academic Objectives of this 2 week Course :

- Strengthen problem solving and design skills.
- Work on classifying inputs and outputs and how to use them to build robots.
- Develop an ability to move between verbal and symbolic languages and representations.
- Expose students to other relevant technologies (CAD, research robotics, commercial robotics, computer programming, animation, etc.) to raise awareness and excitement levels.
- Build teams in which every member has both a specialty and a full range of experiences.

Location of Classes: AnNur Islamic School Building

2195 Central Avenue, Schenectady NY, 12304
(across the street from ICCD)



Dates & Times of Instruction:

Classes will be two week's long. There are two sessions being offered this summer. Please see the following chart for more details.

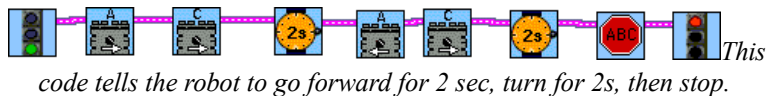
Break/Snack times: During the class students are given one 5 minute break along with one 30 minute break for physical activities and snack time.

	Class Type	Dates & Times	Hours of Instruction
Session 1a	Robotics	July 5 th - 8 th & 11 th - 15 th 9am - 12pm	27
Session 1b	Animation	July 5 th - 8 th & 11 th - 15 th 12pm - 3:30pm	27 (plus 30 min. for Prayer)*
Session 2a	Animation	July 19 th - 22 nd & 25 th - 29 th 9am - 12pm	27
Session 2b	Robotics	July 19 th - 22 nd & 25 th - 29 th 12pm - 3:30pm	27 (plus 30 min. for Prayer)*

*Muslim prayer will be observed from 1pm - 1:30pm everyday for Muslim students. Students who are not Muslim will have a supervised break time by Y.E.A. Staff while prayer is being conducted.

Robotics: What exactly will students learn?

- Programming Language:

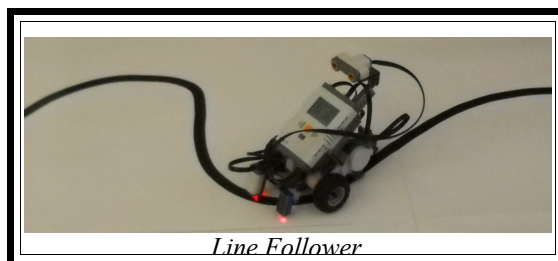


This is an example of the style of language we will program in RoboLab. It is called "linear" programming because all the commands are in a "line" and are executed (run) from the leftmost icon (green light) to the right most icon (red light). This removes any sort of fear from the student about programming. Its friendly and easy to learn. This also gives the student the advantage of learning complex programming methods before even having to deal with any real "coding" such as *forever loops, if-else statements, functions, and subroutines.*

- Robot Construction and Sensor Implementation:

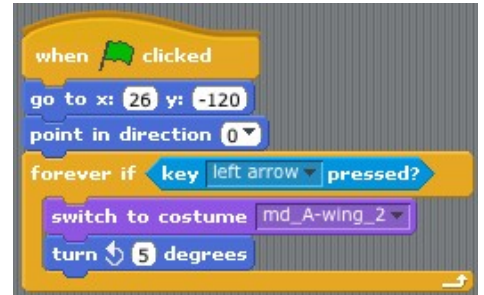
We utilize various sensors which enable the robots to experience the environment such as: Touch, Light, Sound, Ultrasound, and Motor Rotational.

- Leadership skills
- Problem solving
- Advanced math & science skills



Animation: What exactly will students learn?

- **Programming Language:** The software we use is one developed by MIT called "Scratch". It allows students who have never programmed animation before to program in an easy and fun way. It is a block programming language which allows students to use preprogrammed block commands to make animations or interactive games.
- **Animated Greeting Cards:** One project students will complete will be to create a greeting card for a holiday of their choice. Student's creativity and artistic ability are showcased through here. This allows them to have a good feel of the program before they begin game creation.
- **Basics of Game Creation:** Students will be given the tools to create their own games. As all learning starts from the basics, the games will be similar to pacman, pong, and other classics.
- **Leadership and Teamworking skills** – Students will work in groups of two and will have to learn how to cooperate and complete a project together.
- **Problem solving** – There will be many challenges along the way and students will have to learn how to troubleshoot a problem with assistance from the instructor.



Class Size

Only 12 students can participate per class because this allows for more individual attention to students. Two instructors are present during every class to help students solve problems and answer questions giving our class a 1:6 instructor-to-student ratio. Once seats are filled for a class, no more applications will be accepted for that class. Applications are only accepted once full payment is received.

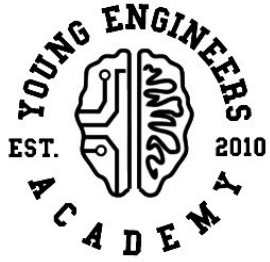
Tuition:

- **Comparison with Other Robotics & Animation program:**

Institute	Per Class Per Student
Young Engineers Academy	\$350.00*
Other Summer Robotics Program	\$500.00
Amount students Save	\$150.00

* Discounted price of \$650 if student takes both classes in one session

About the Instructor



Owais Memon is currently an Instructor at AnNur Islamic Middle School and is working towards a M.A. in Technology Education from Western Governors University Online. He has graduated from Rensselaer Polytechnic Institute with a B.S. in Electrical Engineering and has worked as a Software Engineer. He has worked at RPI's Summer LEGO Robotics Engineering Academy in 2010. With his passion for teaching mathematics and science he founded Young Engineers Academy in 2010 and has been teaching afterschool robotics programs ever since. You can contact him at owais@yeacademy.org

Please visit his blog for updates on his projects and interests: www.omemon.wordpress.com

Due Dates

June 15th

Registration with payment is due.
After this date placement may not be guaranteed.
*Registration is only complete when payment is received

Payment Methods:

1. Check: Payable to "Young Engineers Academy". Please mail to Young Engineers Academy, 2325 16th st apt 1. Troy NY 12180.
2. Cash

Students **MUST** pay tuition and attend all sessions in order to receive a certificate of completion. On the last day of the class students will display their accomplishments in front of parents and friends.



Refund and Cancellation Policy

- We appologize but once payment is made and student(s) are registered, refunds are not possible after June 15th . Only under circumstances which are proven through medical documentation or other official written documentation stating a case of emergency will a refund be considered and made only by the approval of Young Engineers Academy staff.