

AUTOMATION & ROBOTICS

Make the robots do the hard work!

Control what you may never have dreamed of...



Students explore the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students will use the VEX Robotics platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms. Students

will explore the many facets of robotics and understand how robots impact they have on our everyday lives. Students will experiment with the mechanical system with hands on projects changing force, torque, speed, and direction of movement to make the robot perform its desired function more efficiently to the students' needs.

Your Keys to the Course

TEACHER

Mr. Murphy



WHERE & WHEN

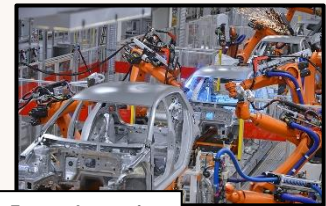
Period
 Room **309**

Technology Education Department

www.mrrteched.com

tmurphy@smithtown.k12.ny.us

Please schedule extra help with Mr. Murphy during the following periods.



Factory Automation

Lesson Summary

Lesson 1: What is Automation and Robotics
 Lesson 2: Mechanical Systems
 Lesson 3: Automated Systems

WEBSITE: <http://mrteched.com>

Project Lead The Way(PLTW): <https://www.pltw.org/>

PLTW Personal Password: _____

PLTW Username: _____

Google Classroom Code: _____



Cut along dotted line and return bottom to Mr. Murphy



I have a complete understanding of the classroom and lab safety rules and procedures and will make every effort in making sure I abide by them while present in these rooms. I am responsible and will be held accountable for my actions.

Students Name: _____ Class Name: _____ Period #: _____

Students Signature: _____ Grade Level: _____

Parent/Guardians Signature: _____ Phone #: _____

Parent/Guardians Email: _____ Date: _____

All schoolwide rules apply!

CLASSROOM RULES

- Students are responsible for cleaning up after themselves.
- Students are required to participate in lab cleanup and will be counted towards your grade.
- Please be environmentally conscious and don't be wasteful with materials.
- No students are allowed to enter the classroom or lab without a Technology teacher present.
- The teacher and school district will not be held liable for any personal belongings left behind.

TECHNOLOGY LAB RULES

Students must understand and follow all classroom rules as well as lab safety rules, receive a 100 % on a lab safety quiz, and bring in the "Lab Safety Parent/Guardian Safety Signature Form" signed by both the student and the parent and/or guardian.

Supplies Required

- 5 - #2 Pencils
- 2 - Pens
- 1 - 2 Pocket Folder
- 1 - Gallon size Ziploc baggie

Optional Supplies:

- Earbuds
- Cordless mouse

Preparedness:

Come to class prepared daily with the required supplies. Be prepared; body, mind, and supplies and ready to interact and learn.

- ❖ All engineering notebooks must remain in class at all times.

Teamwork:

Teamwork is an essential skill to succeed, please take the opportunity in helping yourself to learn from your teammates and share your successes with them.

Final Portfolio:

The Engineering Notebook, also known as the final portfolio, is the compilation of notes, design briefs, sketches, charts, and final drawings and will be counted as 11% of the final grade in Powerschool.

Grades will be based on the following percentages:

Classwork & Activities	40%
Homework & Participation	10%
Projects	40%
Tests & Quizzes	10%

Please print in black and white to save money

Safety First!