



PROJECT LEAD THE WAY

PLTW

At Willowbrook we currently offer:

### **Introduction to Engineering Design (IED)**

Students dig deep into the **engineering design process**, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software (Autodesk Inventor), and use an engineering notebook to document their work.

*\*Honors Option to earn Honors Credit      \*University Credit Available*

–Mr. Quinn

### **Principles of Engineering (POE)**

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation (the building and programming of robots). Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. **\*2020 Samsung \$15,000 Grant Champions!** OakBrook Chamber of Commerce & Inventor Partnerships

*\*Honors Option to earn Honors Credit      \*University Credit Available*

–Mr. Zwart

### **Digital Electronics (DE)**

Students explore the foundations of computing by engaging in circuit design processes to create combinational logic and sequential logic (memory) as electrical engineers do in industry. Community Partnerships in progress for 2021

*\*Honors Option to earn Honors Credit      \*University Credit Available*

–Mr. Quinn

Contact Mr. Zwart at [jjzwart@dupage88.net](mailto:jjzwart@dupage88.net) or Mr. Quinn at [kquinn@dupage88.net](mailto:kquinn@dupage88.net) if you have questions or visit us in A123 during Warrior Time.