

## COLLEGE TECH PREP

# Electronics, Robotics and Programming

Career opportunities are abundant and increasing in the fields of electronics, robotics and programming. This program will provide students with great preparation in theory and hands on experience. Transistor circuits, amplifiers, LED lighting and soldering projects are included. Vex robots are built and programmed with C language. BASIC language is used for parallax robots and LED displays. Video game programming is offered, computers are assembled and software installed. Students who complete the Electronics, Robotics and Programming College Tech Prep Initiative will have the opportunity to continue their studies in post-secondary education, enhance their skills in the military or directly enter the work force.

### Skills necessary for success

- Ability to work independently and as part of a team
- Ability to follow directions and assume responsibility
- Written and verbal communication skills
- Disciplined self-starter
- Creative problem-solver
- Logical thinker who pays attention to detail
- Aptitude for precision work
- Manual dexterity
- Patience to follow through on tasks

### Professional pathway

- Computer laboratory technician
- Development instrumentation technician
- Electronic communication technician
- Nuclear reactor electronics technician
- Systems testing laboratory technician
- Electronics manufacturing and production technician
- Electronic equipment installer
- Cable television installer
- Computer installer/technician

### Recommendations

- Excellent attendance record
- Minimum 2.5 GPA

### Career interests/helpful background

- Using specialized tools and equipment
- Hands on applications of scientific principles
- Computer technology
- Electricity and circuitry

### Higher education opportunities

- College credits available. See page 32.
- Associate's degree
- Bachelor's degree



**GRADE LEVEL:** 10, 11, 12  
**LENGTH:** One or two years; three periods per day  
**SCHOOL:** Roosevelt

**CREDIT:**  
**Level I:** Electronics, Robotics and Programming IA 1, Electronics, Robotics and Programming IB.  
**Level II:** Electronics, Robotics and Programming IIA 1, Electronics, Robotics and Programming IIB.