## Robotics & Automation Systems Technology Associate of Applied Science

This degree focuses on designing, programming, maintaining, and operating robotic systems and automated machinery used in modern industry.

The robotics and automation industry has revolutionized the world, creating a high demand for skilled professionals.

Robotics and Automation Systems Technology program combines principles from:

- Mechanical Engineering (robot design and movement)
- Electrical Engineering (sensors, wiring, power)
- Computer Science/Programming (automation logic, Al, machine learning)
- Industrial Control Systems (PLCs, HMIs, SCADA)
- Semester 1: Basic Workplace Skills, Technical Mathematics or above, Electrical Print Reading, Fundamentals of DC/AC, English Composition I or Technical Writing I
- Semester 2: Motors & Controls, SolidWorks/Mechanical, Industrial Wiring, Fluid Power, Programmable Logic Controllers
- Semester 3: Advanced Programmable Logic Control, Introduction to Robotics, Robotics Technologies, OSHA Voluntary Compliance, Logic: GT-AH3, Conceptual Physics, Physics: Algebra-Based I or Physics: Calculus-Based I
- Semester 4: Industrial Rotating Equipment,
  Automation Control Circuits,
  Lean Manufacuring,
  Quality in Process Tech.
  3D Printing

TRINIDAD STATE COLLEGE employs state-of-the-art materials, facilities and Faculty.

**Robotics Design & Assembly** 



## **Industrial Automation**



## **Machine Vision & Al**





trinidadstate.edu/robotics-automation