

**FRANKLIN COUNTY CAREER AND TECHNOLOGY CENTER
TRAINING PLAN FOR COOPERATIVE EDUCATION**

Vocational Program: **Mechatronics**

Student _____ Telephone _____

Parent/Guardian _____ Telephone _____

Training Agent _____ Telephone _____
(Employer)

E-Mail _____

Training Supervisor _____ Telephone _____
(Please Print)

Training Supervisor Signature _____ Date _____

Co-Op Coordinator Signature _____ Date _____

COMPETENCIES TO BE DEVELOPED
(TRAINING AGENT/EMPLOYER PLEASE MARK ALL APPROPRIATE BOXES)

STEM/Manufacturing Academy-Mechatronics

Safety in the work place/Equipment/OSHA
Blueprints, symbols, and Diagrams
Measurements using multi-meters
Referencing the NEC
Operate/Test DC motors
Variable speed control for DC motors
Operate/Test AC 3 phase motors
Operate/Test AC single phase motors
Wire motor starters & reversing starters
Wire motor control circuits
Wire pushbuttons & limit switches
Wire sensors, relays, & power supply's
Wire limit switches
Troubleshoot motor control circuits
Connect and operate transformers
Soldering terminals/conductors/boards
Edit PLC programs
Troubleshoot PLC systems
Connect/Terminate PLC systems

Connect/operate AC variable speed drives
Install/troubleshoot mechanical systems
Install/maintain v-belts, pulleys, & bearings
Install/maintain gear trains & chain drives
Install/maintain clutches and brakes
Install/maintain fluid power systems
Troubleshoot fluid power systems
Install/maintain hydraulic or air lines
Install/maintain cylinders and actuators
Install/maintain electric control of fluid power
Install/maintain fluid power relays and pressure switches
Troubleshoot electric control of fluid power
Programming of robotics
Install/maintain robotic systems
Troubleshoot robotics and robotic systems
Install/maintain work cells in a manufacturing system