

**Deere & Company  
Future Skills Needed**

**Advanced Manufacturing Skills**

- **Skills Needed - Salaried Employees**
  - ***Product Development***
    - Electronics & Embedded Software Engineers
    - Composite Materials
    - Global positioning systems & satellite communications
  - ***Technologies for Manufacturing Processes***
    - Robotics
    - Weld Systems
    - Advanced Machining Systems
    - Automation-Mistake proofing systems
    - RFID systems (radio frequency ID's)
  - ***Computer Controlled Machines***
    - Logic systems, sensors, etc.
  - ***Manufacturing Support of Operations***
    - Welding Technology
    - Laser Cutting
  - ***Engineers in general***
    - Multi-lingual (Spanish, Portuguese, Mandarin, Russian)
  
- **Skills Needed - Production Employees & Maintenance Employees**
  - ***Manufacturing Processes***
    - Robotics-operation
    - Welding processes - operation
    - CNC Machines - operation
    - Fundamental control systems-operation
    - Assembly
      - Interpret instructions in electronic format
  - ***Maintenance Systems***
    - Programmable logic controllers
    - Electronics – in general
    - Presence Sensing Devices
  
- **Iowa Community Colleges & Regent Universities**
  - ***Complex Issue***
    - Enhance existing programs and create new programs: Machining, Production & Maintenance Welding, Assembly
    - Community Colleges need instructors, equipment and programs
    - Community Colleges need stability and continued support for job training programs offered to employers throughout the State
    - Need shorter cycle time for student completion of community college skilled trade programs
    - Need an “Iowa” source for welding engineering