

Automation & Robotics

Rev.1

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What is the difference between NC and CNC ?

- Some of the enhancements that came along with CNC include: Canned Cycles, Sub Programming, Cutter Compensation, Work coordinates, Coordinate system rotation, automatic corner rounding, chamfering, and B-spline interpolation.

Do all machines speak the same CNC language

- No, while there is fairly standard set of G and M codes, there is some variation in their application. For example a G0 or G00 command is universally regarded as the command for rapid travel. Some older machines do not have a G00 command. On these machines, rapid travel is commanded by using the F (feed) word address.

What is NC/CNC?

- NC is an acronym for Numerical Control and CNC is an acronym for Computer Numerical Control.

Where did CNC get started?

- 1940 Jhon Parson developed first machine able to drill holes at specific coordinates programmed on punch cards.
 - 1951 MIT developed servo-mechanism
 - 1952 MIT developed first NC machines for milling.
 - 1970 First CNC machines came into picture
- Now-a-day's modified 1970's machines are used.

What is a "Conversational Control"

- CNC machine tool builders offer an option what is known as the conversational control. This control lets the operator/programmer use simple descriptive language to program the part. The control then displayed a graphical representation of the instructions so the operator/programmer can verify the tool path.

What is the difference between NC and CNC ?

- The difference between NC and CNC is one of age and capability.
- The earliest NC machines performed limited functions and movements controlled by punched tape or punch cards.
- As the technology evolved, the machines were equipped with increasingly powerful microprocessors (computers) with the addition of these computers, NC machines become CNC machines.
- CNC machines have far more capability than their predecessor.....

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Assertion (A): The temperature control of an electric iron is an example of servomechanism.

Reason (R): It is an automatic control system.

- (a) Both A and R are individually true and R is the correct explanation of A
- (b) Both A and R are individually true but R is not the correct explanation of A
- (c) A is true but R is false
- (d) A is false but R is true

Are CNC machines faster than conventional machines?

- Yes, No, Sometimes. When it comes to making a single, simple part it is hard to beat a conventional mill or lathe. CNC machines move faster in rapid travel than conventional machines.