

Macro CNC Simulator



Macro Simulator Console Based



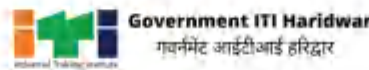
Macro Simulator PC Based



4K Smart Touch Panel WhiteBoard



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CNC Controllers

Sinumerik Operate 828D or latest version
FANUC Series 31i or latest version
HEIDENHAIN TNC 640 M latest version

Features of CNC Simulator:

*The offline CNC simulator module shall be a complete setup of hardware and software based training solution for CNC machining.

*The simulator shall be capable of simulating operation of the CNC controller in real life environment.

*Operation and handling similar to the real life machine controller shall ensure that a CNC program generated with the setup (hardware and software) shall be able to run on the CNC machine.

*The simulator shall feature a multimedia training program consisting of teaching modules on modern CNC technology.

*The training program shall have interactive dialog feature that allows trainees to progress at their own pace.

*Screen Views shall be displayed using attractive 2-D graphics and 3-D graphics for tools, work piece and clamping device/s, animations. The design of training module shall be such that the training can be imparted either on a PC or via internet. The training module shall be further supported with live examples/projects.

* Suitable for conducting training on CNC milling and turning machines with Fanuc 31i T M, Sinumerik Operate with Shop turn & Shop mill, HEIDENHAIN TNC 640-M controller families/ types and up-gradable to latest versions. The software must be able to run independently, especially on PCs without machines.

*The software shall be capable of Broadcasting and sharing of the screen with the classroom,Controlling access,Evaluation of work carried out by the students,Perform in an interactive whiteboard environment

*The training console should be designed for milling and turning machines, including machine controller base unit with USB interface.

*Smart touch technology, write,save and e-mail,Interactive white board and Pen,- Mobile connectivity and 4K UHD Resolution or better.

*We Provide various type of Touch screen Panel 21.5 / 24 / 15.6 / 55/ 65 inch "

FANUC 31i Turning Controller

Finishing cycle
 Turning cycle
 Facing cycle
 Pattern repeating
 Boring Cycle
 Grooving cycle
 Threading cycle
 Cancel drilling cycle
 Drilling cycle
 Tapping cycle
 Reaming cycle
 Call Sub programming
 End Sub programa

SINUMERIK 828D Turning Controller

Drilling, centering
 Drilling, counter boring
 Deep-hole drilling
 cycle (deep-hole drilling)
 cycle (rigid tapping without using a
 floating tap holder)
 Rigid tapping without using a float-
 ing tap holder
 Tapping with floating tap holder
 Recessing cycle
 Undercutting cycle
 Stock removal cycle
 Thread undercut cycle
 Thread cutting cycle
 Chaining of threads

FANUC 31i Milling Controller

Chip Break drilling cycle
 Cancel drilling cycle
 Drilling cycle
 Drilling cycle with dwell time
 Deep hole drilling cycle
 Taping cycle
 Reaming cycle
 Drilling cycle with spindle stop
 pack drilling cycle
 Drilling cycle with program stop
 Reaming cycle with dwell time
 Scale / Mirror factor
 Coordinate system ON
 Coordinate system OFF
 Call Sub programming
 End Sub program
 Macro Programming

SINUMERIK 828D Milling Controller

Contour milling
 Surface milling
 Drilling, centering
 Drilling, counter boring
 Deep-hole drilling
 Rigid tapping without using a float-
 ing tap holder
 Tapping with floating tap holder
 Hole circle
 Thread milling
 Slots on a circle
 Rectangular pocket milling cycle
 Circular pocket milling cycle
 Special rectangular pocket milling
 cycle
 Special circular pocket milling cycle

HEIDENHAIN TNC 640 - Milling Controller

Drilling / Thread Cycle for Drilling, Tapping and Thread Milling
 Pocket /Studs/Slots cycle for Milling pockets, Studs and Slots
 Pattern cycle for Machining Holes patterns
 SL-Cycle Cycle for complex contours
 Multipage Cycle for Multipass milling
 Coordinate transformation cycle for Coordinate transformation
 Special Cycle for well type, program calls, oriented spindle stop.

Line :L, Chamfer : CHF Circle Center :CC . Circle : C

Circle by Radius : CR Corner rounding : RND

Free Contour Programming : FK

Window Oriented, Modern User interface

Drilling / Thread Cycle for Drilling, Tapping and Thread Milling

Pocket /Studs/Slots cycle for Milling pockets, Studs and Slots

Pattern cycle for Machining Holes patterns

SL-Cycle Cycle for complex contours

Multipage Cycle for Multipass milling

Coordinate transformation cycle for Coordinate transformation

Contour Milling Cycles

Contour Finishing Depth Cycles

Contour Finishing Side Cycles

Mirroring

Rotation

Helix

Datum Setting

SL Cycles

Horizontal and vertical control via soft keys like the industry control

Heidenhain controller.

Details Specification of CNC Offline programming Software

Offline programming station shall provided with on screen inter-changeable key-modules for the respective Controller family / Type.

Graphic simulation in 2D/3D graphics with zooming facility.

Detailed error message about programming faults / errors.

Language : English

Program generate : Main programs, subroutines, tool data register and work piece management

shall be auto stored

Control system : PC based control for Turning and Milling

Operations : Linear, circular, helical and thread interpolation, Pocket, etc.

Operating System Should support on Latest MS windows operating system.

General Informations :

CNC Simulator, Educational software for machining parts based on PC environment. The trainer can achieve high efficiency in CNC education with a low budget using our CNC Simulator. A powerful virtual solution specifically designed to train the students, operators, and CNC Learners, Faculty, and Professors. Institutions like Polytechnics, Eng. Colleges' real-time operations can train in Virtual CNC Milling and Turning centers with different controllers like FANUC, SIEMENS, FAGOR, Haas and MITSUBISHI.

CNC Simulator is mostly preferred and widely used by institutions to train the students and evaluate their scores with online exams and share the screens to learn and doubt clearing about the operations of the machine and program.

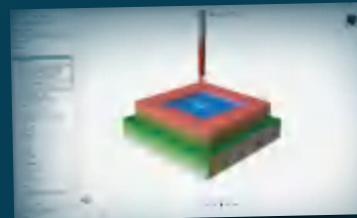
NC Editor is an add-on tool for student writing platforms to do program guide the error on its syntax through IntelliSense and will check its simulation using our CNC Simulator.

CNC Simulator's Funtions

- Realistic control panels and operator panels.
- Cutter trace simulation.
- Machining process simulation based on Job Setting, Toolset, Job measuring tools, and Machine alarms and messages.
- Machining has the coolant, sound, and chips removals.
- Job clamping can use different types like Vice, Hold Clamps, and Side Clamps.
- Machined jobs can be measured by Vernier Caliper, Auto dimensioning.
- Tools Library for the management tools and tools customization.
- Mounted with 10 stations in the Rear. ATC used to change from a magazine for the machining center
- Programs are easily created in ASCII format using any text editor.
- Help on screen for G/M codes.
- Program verification of canned cycles and language syntax according to the command code for the specific model.
- G Code parser. Support ISO-1056 preparatory function codes (G codes), and assistant function codes (M codes).
- G-code debugging tool.
- Capability to simulate canned cycles, macros, and the inclusion of parameters.
- FANUC, SIEMENS polar coordinate programming, G02, G03 spiral interpolation.
- Preset zero point G54, G55, G56, G57, etc.
- Electronic hand wheel available.
- Modes JOG, MDI, EDIT, SINGLE BLOCK, AUTOMATIC, DRY RUN, STOP CYCLE, CYCLE START, EMERGENCY, etc. ...



CNC Turning



CNC Milling

Specifications:

Macro Simulator Console Based :

- Metal Fabricated 21.5" Touch screen panel or above
- Display 1920x1080 pixels (Optimum)
- On Screen Interchange control panels (Fanuc, Siemens, Heidenhein)
- Machine Operation panel (MOP) like Emergency button, lock, MPG, Axis selector, cycle start and stop, feed control, spindle speed, etc..
- On screen MOP (for touch screen)
- On Screen file edit / Open
- Key Board / Mouse
- Processor I5 Porcessor, 8 GB Ram, Ports HDMI, USB, Intel HD Graphics
- Online Internet connectivity

Macro Simulator PC Based :

- Hardware Requirements
- 24" inches LCD or LED monitor with Display 1920x1080 pixels (Optimum)
- i5 Intel Processor, 16GB RAM
- Mouse, Keyboard
- USB, HDMI or VGA Port
- 1TB HDD
- On Screen interchange memorine control
- On Screen Swaping Machine control
- More details Rfr. CNC Virtual Machine & CNC Control