

**Introduction to CNC Machining, perform straight by using Micro Turn CNC Machine.**

**Apparatus:**

vernier caliper, Aluminum Rod,CNC Microturn.

**Apparatus:**



**Final Work piece Geometry**



### **G and M codes file**

(Quick TURN 2D Design - 12.LCM)

(10/23/2017)

(Material Type: Aluminum 2011T3)

(Tools in order of use :)

(Tool 1: Right Hand Turning Tool Tip Angle 80°)

(METRIC OUTPUT)

G21

[BILLET X20 Z100

G98

(Face Off Cut)

G28U0W0

M06T0101

G97M03S2800

G98F100

G00X20.483Z1.965

G01X20Z0

G01X-0.800

G00X0.483Z1.965

G00X20.483

G97M03S2800

(Forward Roughing Cut)

G00Z2.165

G00X19.563

G01X19.080Z0.200

G01Z-18.800

G00X21.880Z-17.400

G00Z0.200

G01X19.080

G01X17.680

G01Z-18.800

G00X20.480Z-17.400

G00Z0.200

G01X17.680

G01X16.280

G01Z-18.800

G00X19.080Z-17.400

G00Z0.200

G01X16.280

G01X14.880

G01Z-18.800

G00X17.680Z-17.400

G00Z0.200

G01X14.880  
G01X13.480  
G01Z-18.800  
G00X16.280Z-17.400  
G00X22.800  
(Forward Roughing Profile Cut)  
G00X20.483Z2.165  
G00X-0.304  
G01X-0.787Z0.200  
G01X12.200  
G01X13  
G01X13.400  
G01Z0  
G01Z-0.400  
G01Z-18.800  
G01X19.200  
G01X19.280  
G01X20.080  
G01X20.480  
G01Z-19  
G01Z-19.400  
G00X20.963Z-17.435  
G00X20.483  
(Forward Finish Profile Cut)  
G97M03S2800  
G00Z1.965  
G00X-0.307  
G01X-0.789Z0.000  
G01X12.200  
G01X13.000  
G01Z-0.400  
G01Z-19.000  
G01X19.200  
G01X20.000  
G01Z-19.400  
G01X20.080  
G00X20.483  
M05  
G28U0W0  
M30

Differentiate between CNC and NC Machining?

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Differentiate between open and close loop system?

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Write advantages and disadvantages of CNC machining?

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