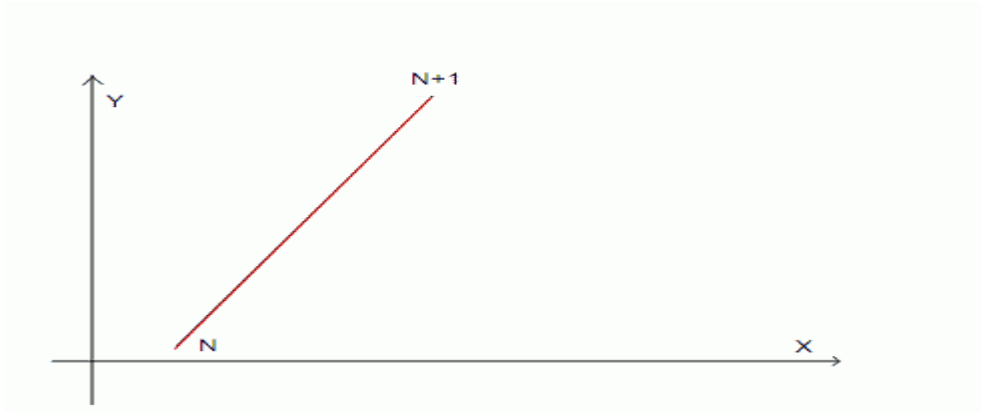


## G Code:

### G00:

Format : G0 X..Y..Z..A..

Description: Rapid motion



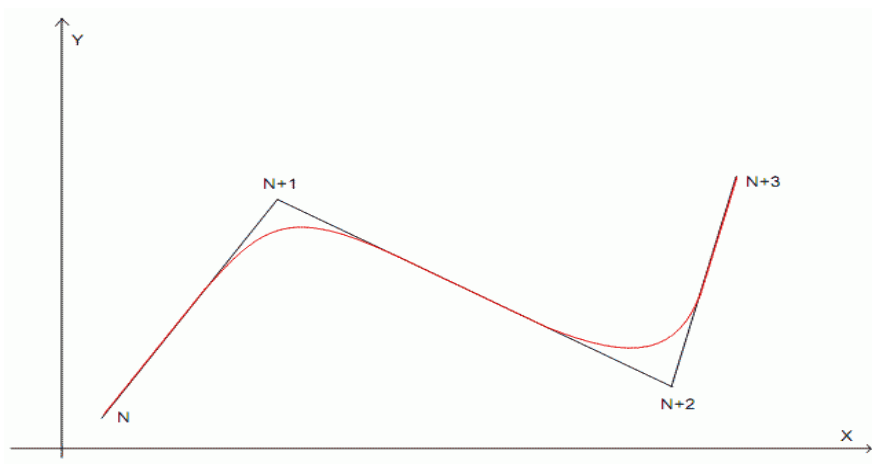
### G01:

Format : G1X..Y..Z..A..F..

Description: 1:Coordinated motion ("Straight feed")

2:LookAhaed;

Red: Actual path in continuous mode

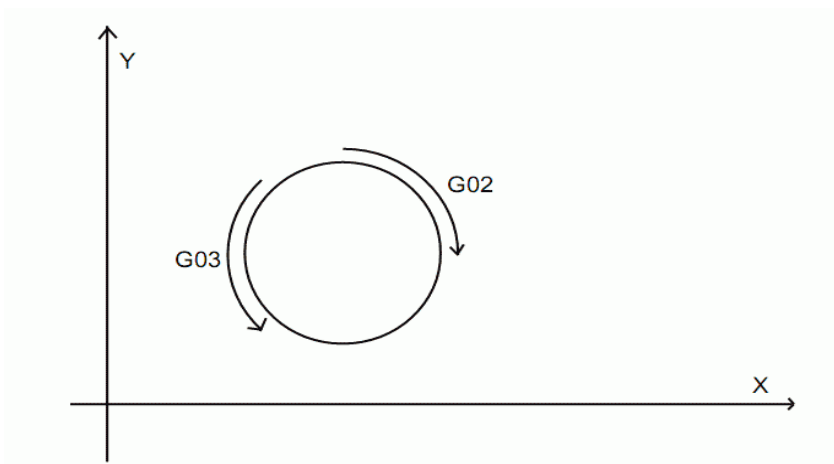


## G02 G03:

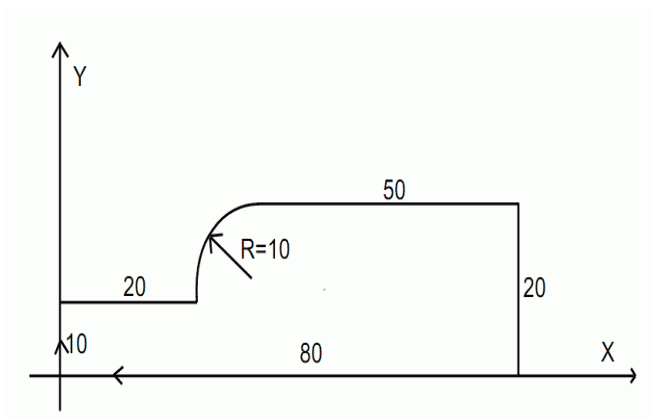
- Format: (1) G02X..Y..Z..R..F.. (Radius)  
(2) G02X..Y..Z..I..J..K..F (The centre of a circle)
- Format: (1) G03X..Y..Z..R..F.. (Radius)  
(2) G03X..Y..Z..I..J..K..F (The centre of a circle)

Description: Coordinated helical motion ("Arc feed") CW or CCW

G02 CW G03 CCW

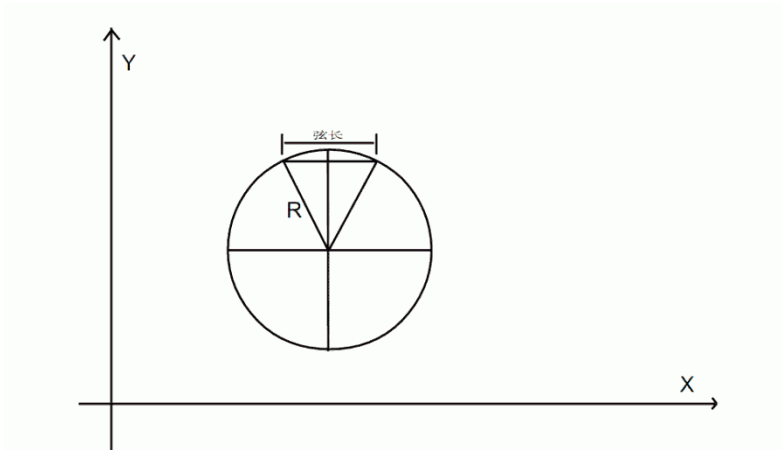


## Example:



```
GOX0Y0Z0  
G1Z-1F1200  
Y10  
X20  
G02X30Y20I10J0  
G1X80  
Y0  
X0  
GOX0Y0Z5
```

## ChordLength:



G02G03 ChordLength

**G17**(X,Y)Plane

**G18**(X,Z) Plane

**G19**(Y,Z) Plane

## G04 Dwell

Format: G04P..

delayTimer : 500ms+ P\*;

Example: (Delay 1S)

```
G0X0Y0  
G1Z-1F1200  
G1X20Y20  
G04P1000  
G1X40Y40  
G0Z5  
G0X0Y0
```

**G90**: Absolute distance mode

**G91**: Incremental distance mode

**G54:**Workpiece Coordinate System1

**G55:**Workpiece Coordinate System 2

**G56:** Workpiece Coordinate System 3

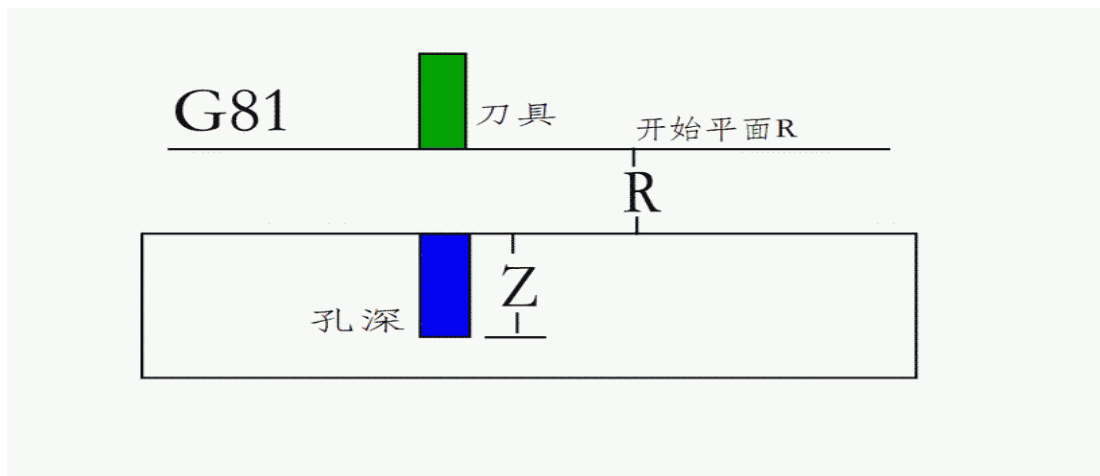
**G57:**Workpiece Coordinate System 4

**G58:**Workpiece Coordinate System 5

**G59:**Workpiece Coordinate System 6

**G81:** ( Drilling Cycle )

Format: G81X..Y..Z..R..F..



**Example:**

**G0X0Y0Z5**

**G81X20Y0R2Z-5F200**

**X20Y20**

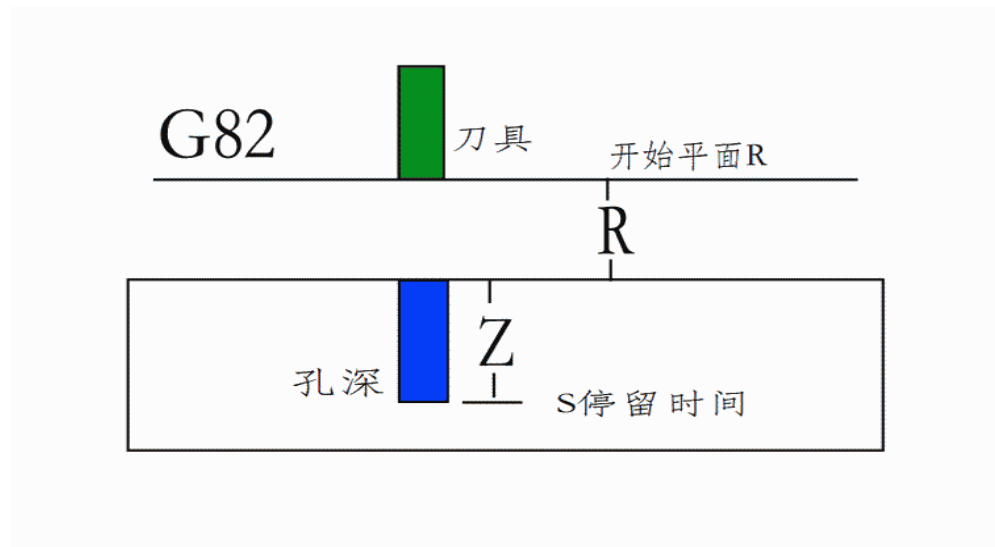
**X0Y20**

**G80**

**G0X0Y0Z5**

**G82:** (Counter Boring Cycle)

Format: G82X..Y..Z..R..P..F..



**Example:**

G0X0Y0Z5

G82X20Y0R2Z-5P1000F200

X20Y20R2Z-5 P1000F200

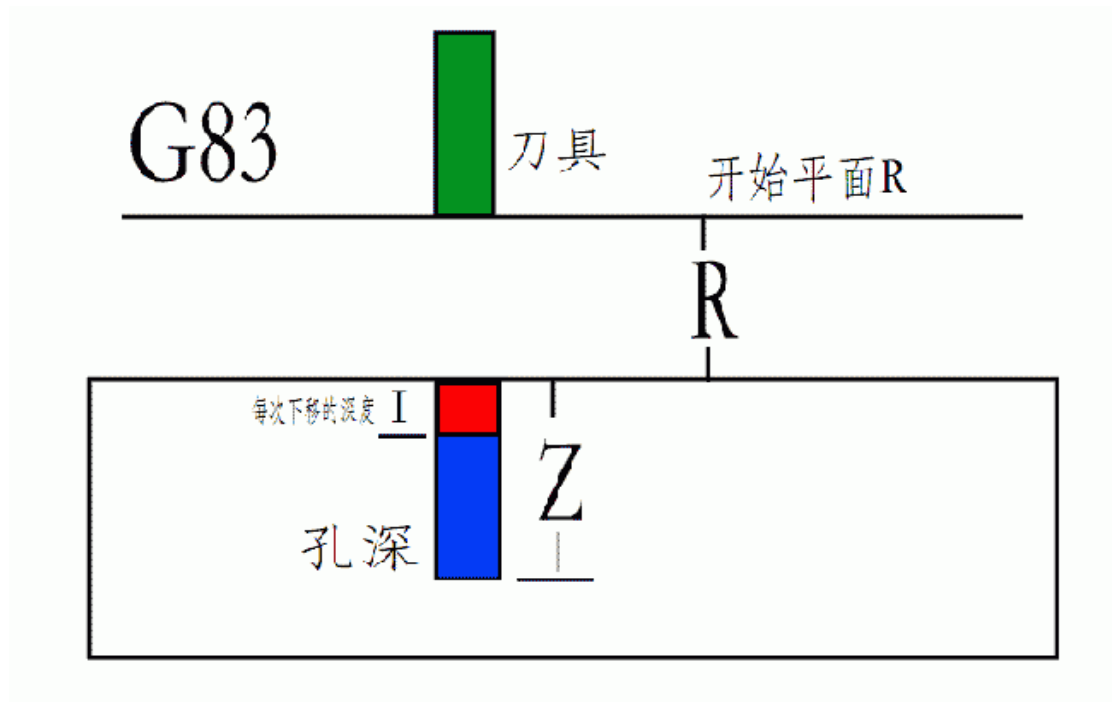
X0Y20R2Z-5 P1000F200

G80

G0X0Y0Z5

**G83:** (Deep Hole Drilling Cycle)

Format: G83X..Y..Z..R..I..F..



**Example:**

G0X0Y0Z5

G83X20Y0R2Z-5I1F200

X20Y20R2Z-5 I1F200

X0Y20R2Z-5 I1F200

G80

G0X0Y0Z5

**G80:** Cancel Canned Cycles

## M Code:

### M47: Back Run From First;

#### OUT M Code (M1\*\*,M2\*\*)

M101     OUT\_1 = 1(Float);  
M102     OUT\_2 = 1(Float);  
M103     OUT\_3 = 1(Float);  
M104     OUT\_4 = 1(Float);  
M105     OUT\_5 = 1(Float);  
M106     OUT\_6 = 1(Float);  
M107     OUT\_7 = 1(Float);  
M108     OUT\_8 = 1(Float);  
M109     OUT\_9 = 1(Float);  
M110     OUT\_10 = 1(Float);  
M111     OUT\_11 = 1(Float);  
M112     OUT\_12 = 1(Float);  
M113     OUT\_13 = 1(Float);  
M114     OUT\_14 = 1(Float);  
M115     OUT\_15 = 1(Float);

M201     OUT\_1 = 0,(Max 500ma To GND )  
M202     OUT\_2 = 0, (Max 500ma To GND);  
M203     OUT\_3 = 0, (Max 500ma To GND);  
M204     OUT\_4 = 0, (Max 500ma To GND);  
M205     OUT\_5 = 0, (Max 500ma To GND);  
M206     OUT\_6 = 0, (Max 500ma To GND);  
M207     OUT\_7 = 0, (Max 500ma To GND);  
M208     OUT\_8 = 0, (Max 500ma To GND);  
M209     OUT\_9 = 0, (Max 500ma To GND);  
M210     OUT\_10 = 0, (Max 500ma To GND);  
M211     OUT\_11 = 0, (Max 500ma To GND);  
M212     OUT\_12 = 0, (Max 500ma To GND);  
M213     OUT\_13 = 0, (Max 500ma To GND);  
M214     OUT\_14 = 0, (Max 500ma To GND);  
M215     OUT\_15 = 0, (Max 500ma To GND);

**INPUT\_\* IF M Code(M3\*\*,M4\*\*)**

M301 if INPUT\_1 = 0 INTPU\_1 THEN RUN NEXT , ELSE WHILE  
M302 if INPUT\_2 = 0 INTPU\_2 THEN RUN NEXT , ELSE WHILE  
M303 if INPUT\_3 = 0 INTPU\_3 THEN RUN NEXT , ELSE WHILE  
M304 if INPUT\_4 = 0 INTPU\_4 THEN RUN NEXT , ELSE WHILE  
M305 if INPUT\_5 = 0 INTPU\_5 THEN RUN NEXT , ELSE WHILE  
M306 if INPUT\_6 = 0 INTPU\_6 THEN RUN NEXT , ELSE WHILE  
M307 if INPUT\_7 = 0 INTPU\_7 THEN RUN NEXT , ELSE WHILE  
M308 if INPUT\_8 = 0 INTPU\_8 THEN RUN NEXT , ELSE WHILE  
M309 if INPUT\_9 = 0 INTPU\_9 THEN RUN NEXT , ELSE WHILE  
M310 if INPUT\_10 = 0 INTPU\_10 THEN RUN NEXT , ELSE WHILE  
M311 if INPUT\_11 = 0 INTPU\_11 THEN RUN NEXT , ELSE WHILE  
M312 if INPUT\_12 = 0 INTPU\_12 THEN RUN NEXT , ELSE WHILE  
M313 if INPUT\_13 = 0 INTPU\_13 THEN RUN NEXT , ELSE WHILE  
M314 if INPUT\_14 = 0 INTPU\_14 THEN RUN NEXT , ELSE WHILE  
M315 if INPUT\_15 = 0 INTPU\_15 THEN RUN NEXT , ELSE WHILE  
M316 if INPUT\_16 = 0 INTPU\_16 THEN RUN NEXT , ELSE WHILE

M401 if INPUT\_1 = 1 INTPU\_1 THEN RUN NEXT , ELSE WHILE  
M402 if INPUT\_2 = 1 INTPU\_2 THEN RUN NEXT , ELSE WHILE  
M403 if INPUT\_3 = 1 INTPU\_3 THEN RUN NEXT , ELSE WHILE  
M404 if INPUT\_4 = 1 INTPU\_4 THEN RUN NEXT , ELSE WHILE  
M405 if INPUT\_5 = 1 INTPU\_5 THEN RUN NEXT , ELSE WHILE  
M406 if INPUT\_6 = 1 INTPU\_6 THEN RUN NEXT , ELSE WHILE  
M407 if INPUT\_7 = 1 INTPU\_7 THEN RUN NEXT , ELSE WHILE  
M408 if INPUT\_8 = 1 INTPU\_8 THEN RUN NEXT , ELSE WHILE  
M409 if INPUT\_9 = 1 INTPU\_9 THEN RUN NEXT , ELSE WHILE  
M410 if INPUT\_10 = 1 INTPU\_10 THEN RUN NEXT , ELSE WHILE  
M411 if INPUT\_11 = 1 INTPU\_11 THEN RUN NEXT , ELSE WHILE  
M412 if INPUT\_12 = 1 INTPU\_12 THEN RUN NEXT , ELSE WHILE  
M413 if INPUT\_13 = 1 INTPU\_13 THEN RUN NEXT , ELSE WHILE  
M414 if INPUT\_14 = 1 INTPU\_14 THEN RUN NEXT , ELSE WHILE  
M415 if INPUT\_15 = 1 INTPU\_15 THEN RUN NEXT , ELSE WHILE  
M416 if INPUT\_16 = 1 INTPU\_16 THEN RUN NEXT , ELSE WHILE



Example:













