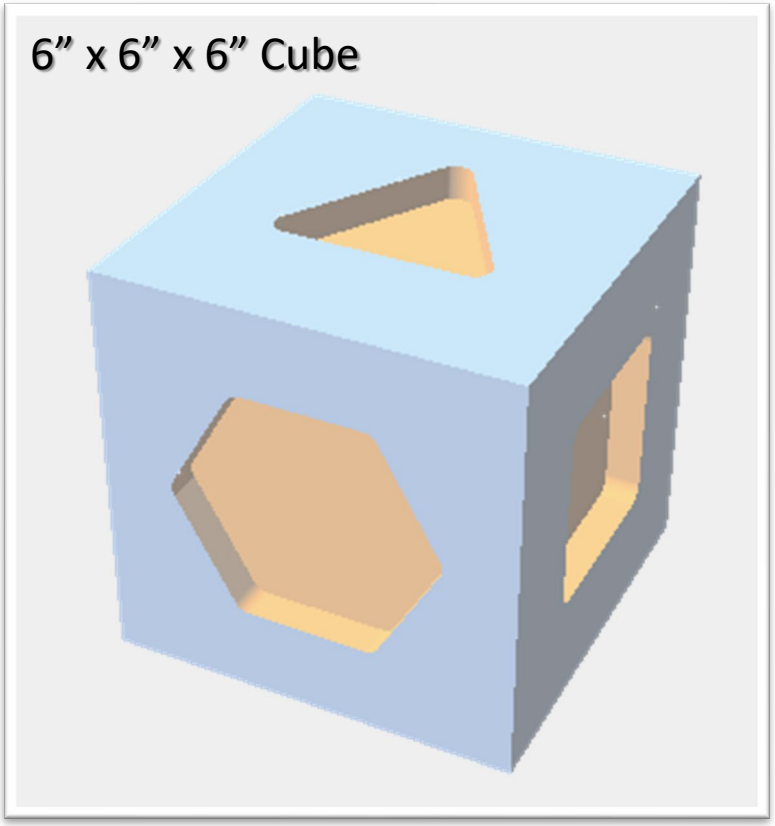
Programming *5-sided*

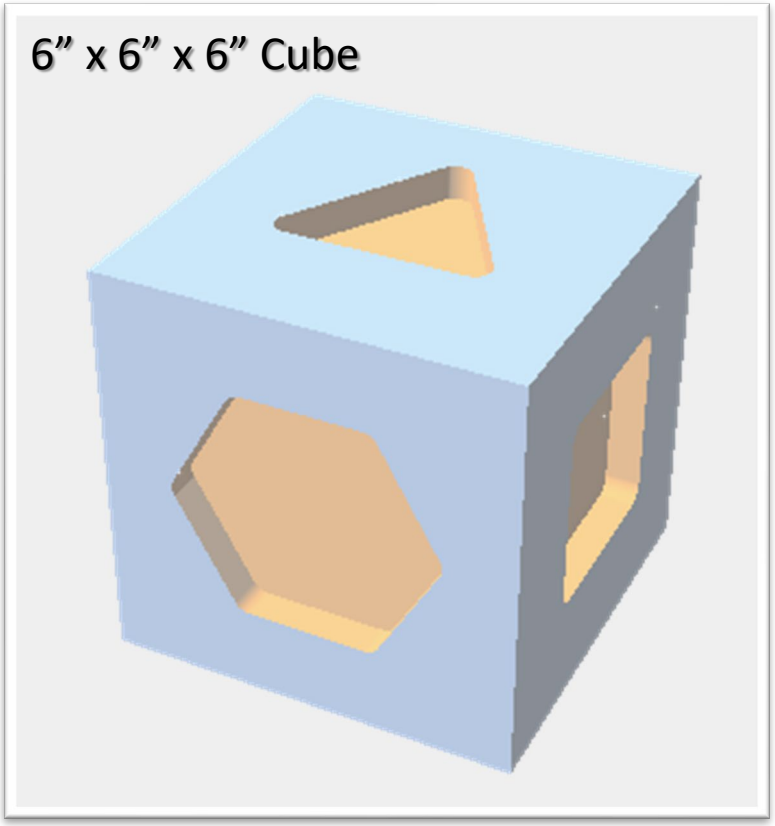
…how easy is it? …can I do it?

…It’s as easy as 1-2-3



Right Side

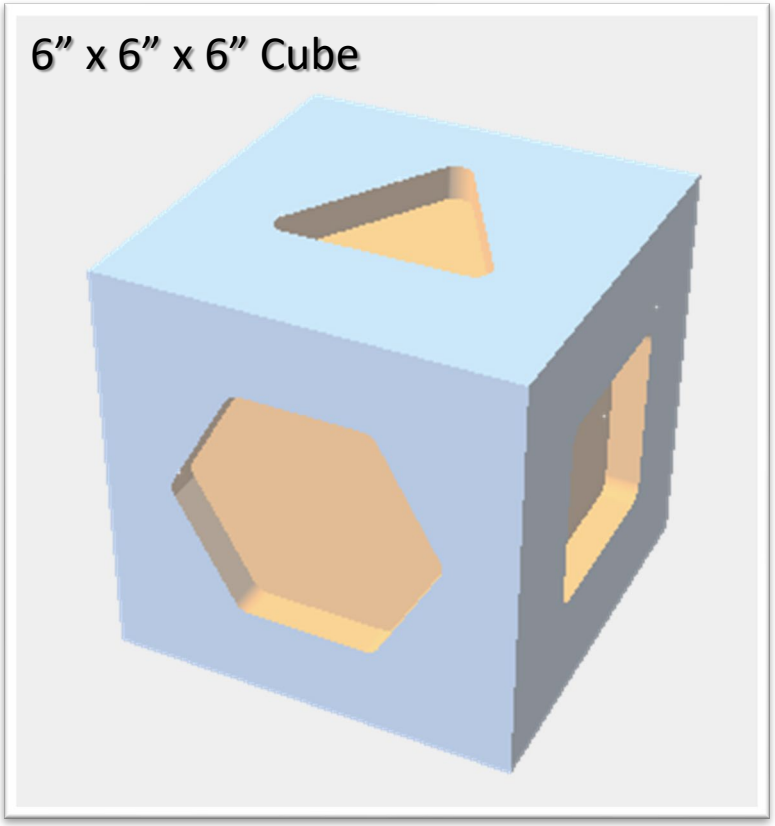
…It’s as easy as 1-2-3



Right Side

1. Move the origin point

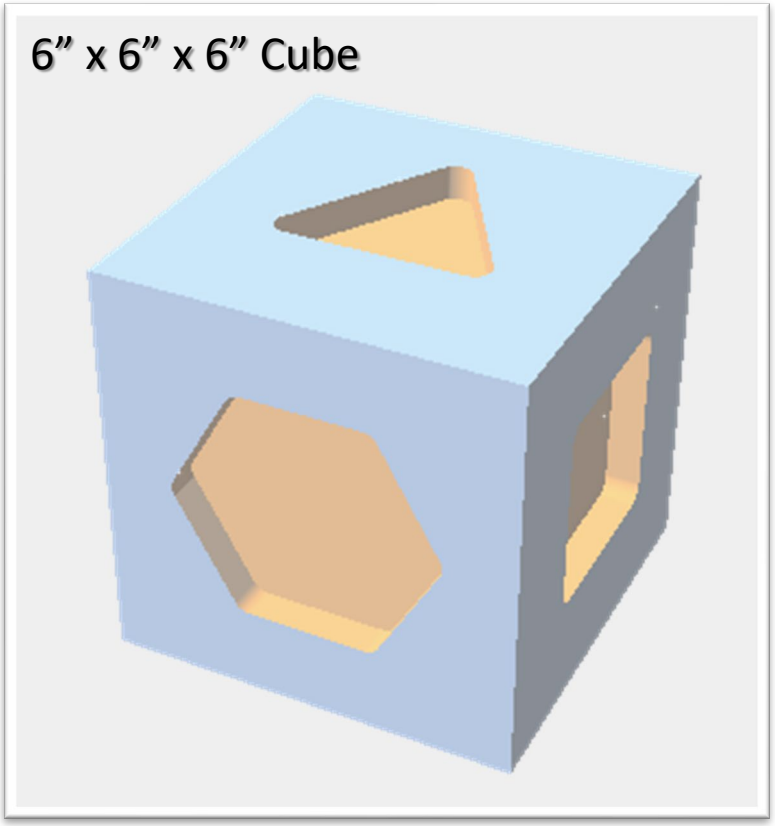
…It's as easy as 1-2-3



Right Side

1. Move the origin point
2. Rotate the workplane

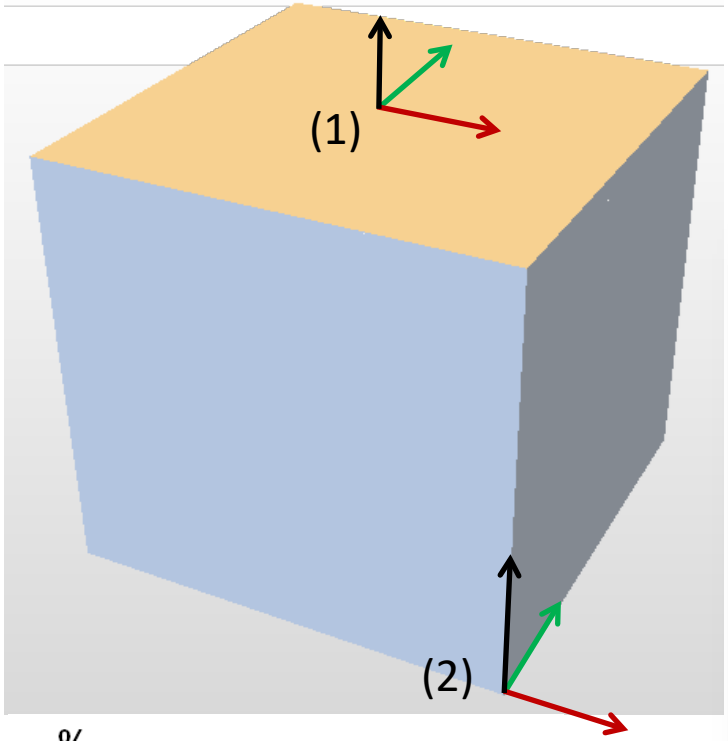
…It's as easy as 1-2-3



Right Side

1. Move the origin point
2. Rotate the workplane
3. Program 3-axis features

Right Side



%
T1M6
G68.2 X3.0 Y-3.0 Z-6.0 B90
G0 X2.566 Y1.3582

1. Move the origin point

BLOCK 3 TRANSFORM PLANE

ORIENT METHOD ANGLES

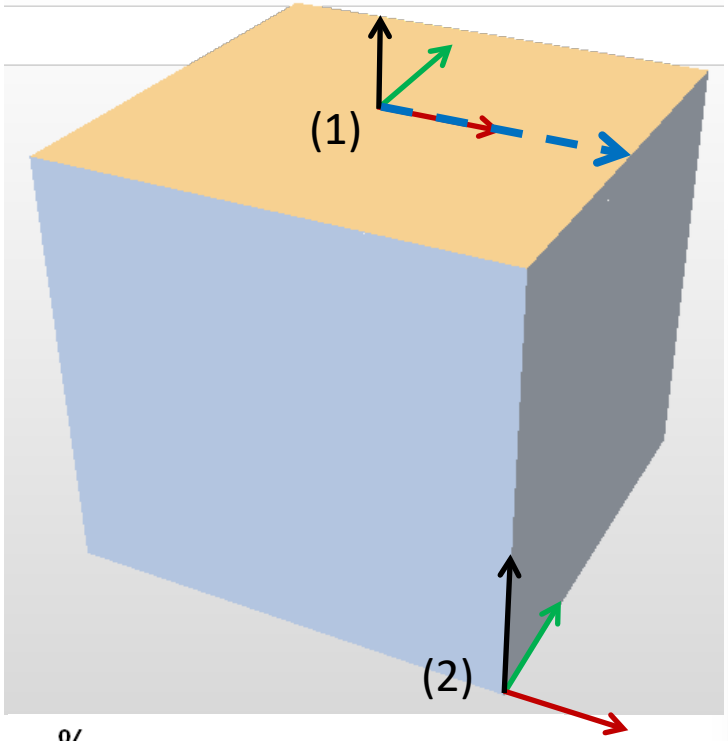
ORIGIN POINT

X	3.0000
Y	-3.0000
Z	-6.0000

ROTATION ANGLES

R(X)	0.000
R(Y)	90.000
R(Z)	0.000

Right Side




```
%
T1M6
G68.2 X3.0 Y-3.0 Z-6.0 B90
G0 X2.566 Y1.3582
```

1. Move the origin point

BLOCK 3 TRANSFORM PLANE

ORIENT METHOD ANGLES

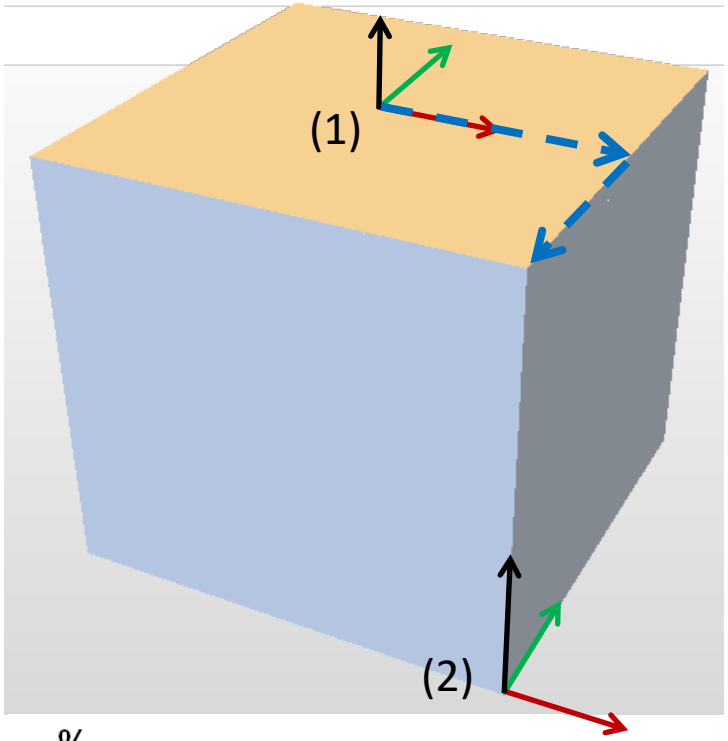
ORIGIN POINT

X	3.0000
Y	-3.0000
Z	-6.0000

ROTATION ANGLES

R(X)	0.000
R(Y)	90.000
R(Z)	0.000

Right Side



1. Move the origin point

BLOCK 3 TRANSFORM PLANE

ORIENT METHOD ANGLES

ORIGIN POINT

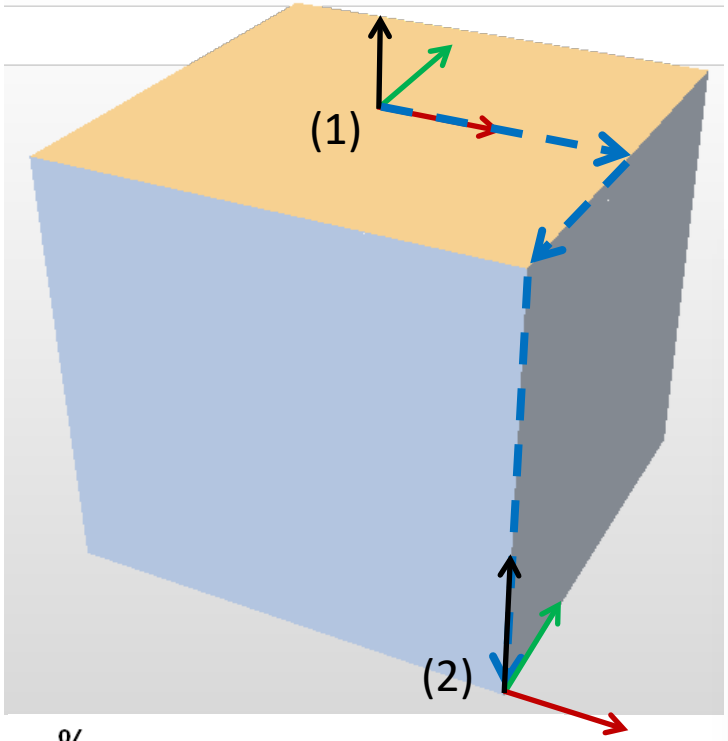
X	3.0000
Y	-3.0000
Z	-6.0000

ROTATION ANGLES

R(X)	0.000
R(Y)	90.000
R(Z)	0.000

```
%
T1M6
G68.2 X3.0 Y-3.0 Z-6.0 B90
G0 X2.566 Y1.3582
```

Right Side



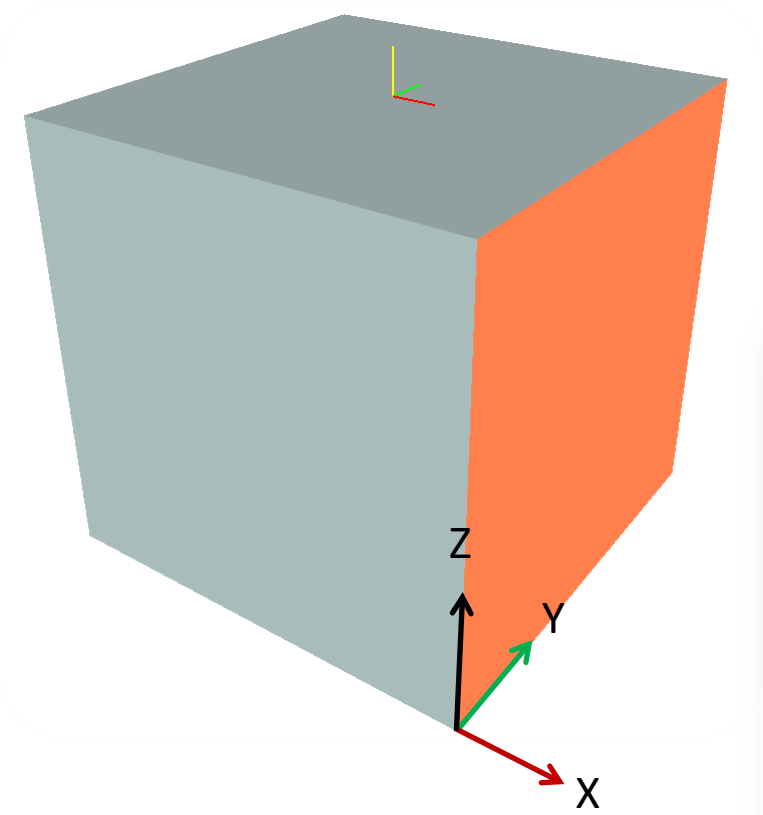
1. Move the origin point

BLOCK 3 TRANSFORM PLANE

ORIENT METHOD ANGLES

ORIGIN POINT		ROTATION ANGLES	
X	3.0000	R(X)	0.000
Y	-3.0000	R(Y)	90.000
Z	-6.0000	R(Z)	0.000

```
%
T1M6
G68.2 X3.0 Y-3.0 Z-6.0 B90
G0 X2.566 Y1.3582
```



Right Side

2. Rotate the workplane

BLOCK 3 TRANSFORM PLANE

ORIENT METHOD ANGLES

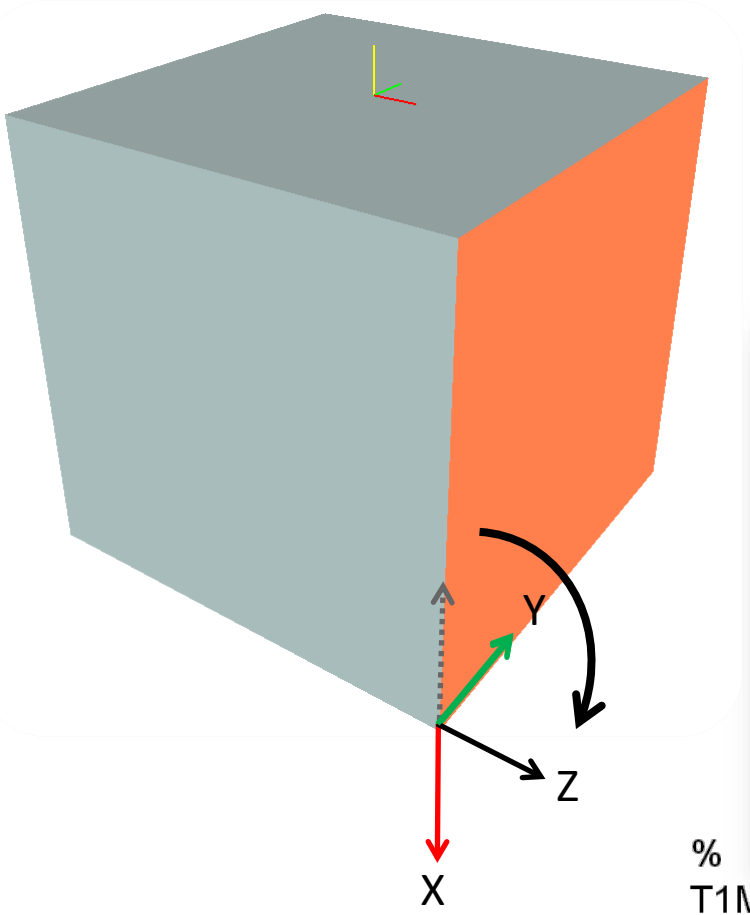
ORIGIN POINT

X	3.0000
Y	-3.0000
Z	-6.0000

ROTATION ANGLES

R(X)	0.000
R(Y)	90.000
R(Z)	0.000

```
%
T1M6
G68.2 X3.0 Y-3.0 Z-6.0 B90
G0 X2.566 Y1.3582
```



Right Side

2. Rotate the workplane

BLOCK 3 TRANSFORM PLANE

ORIENT METHOD ANGLES

ORIGIN POINT

X	3.0000
Y	-3.0000
Z	-6.0000

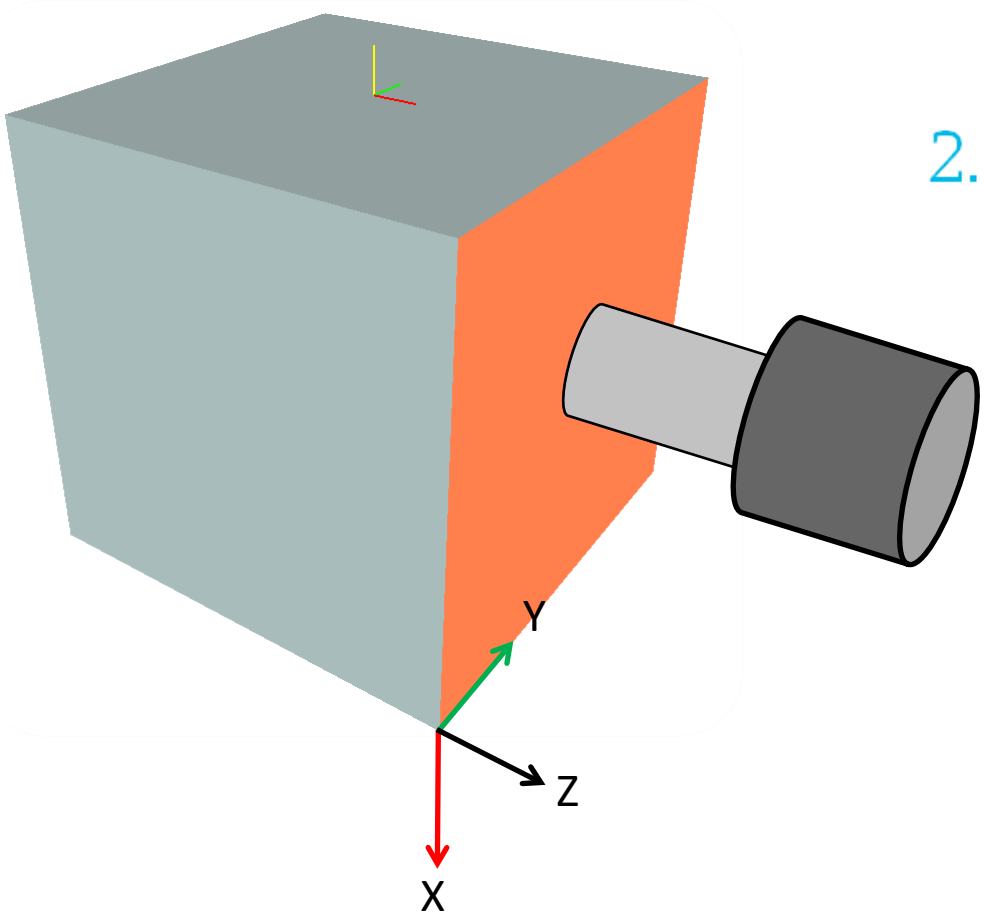
ROTATION ANGLES

R(X)	0.000
R(Y)	90.000
R(Z)	0.000

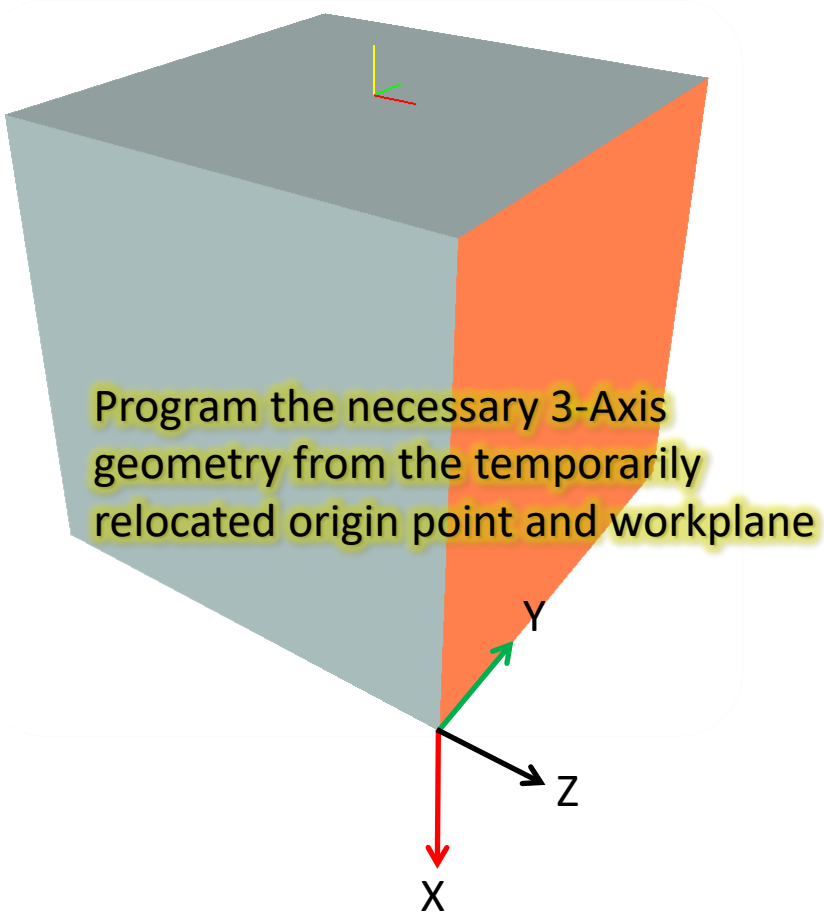
```
%
T1M6
G68.2 X3.0 Y-3.0 Z-6.0 B90
G0 X2.566 Y1.3582
```

Right Side

2. Rotate the workplane



The tool axis is now perpendicular to the newly created workplane



Program the necessary 3-Axis geometry from the temporarily relocated origin point and workplane

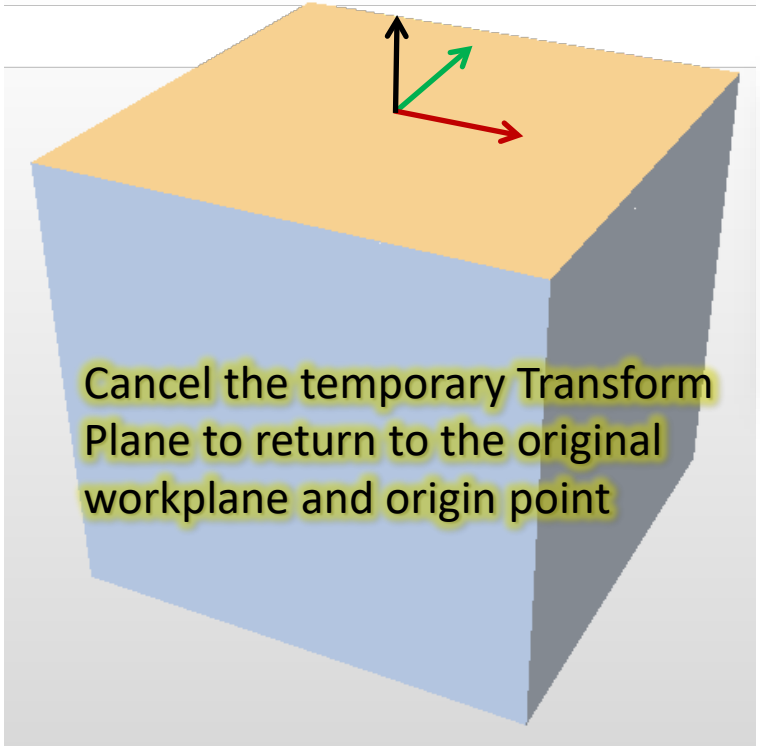
Right Side

3. Program 3-axis features

BLOCK	5	MILL CIRCLE	
X CENTER	-3.0000	Z START	0.1000
Y CENTER	3.0000	Z BOTTOM	-0.5000
RADIUS	2.5000		

Conversational - OR – G Code

```
%
O2012(HURCO ENGRAVE)
(MATERIAL - ALUMINUM INCH - 2024)
( T1000 |  1/8 BALL ENDMILL )
N100 G20
N102 G0 G17 G40 G49 G80 G90
N104 T1000 M6
```



Right Side

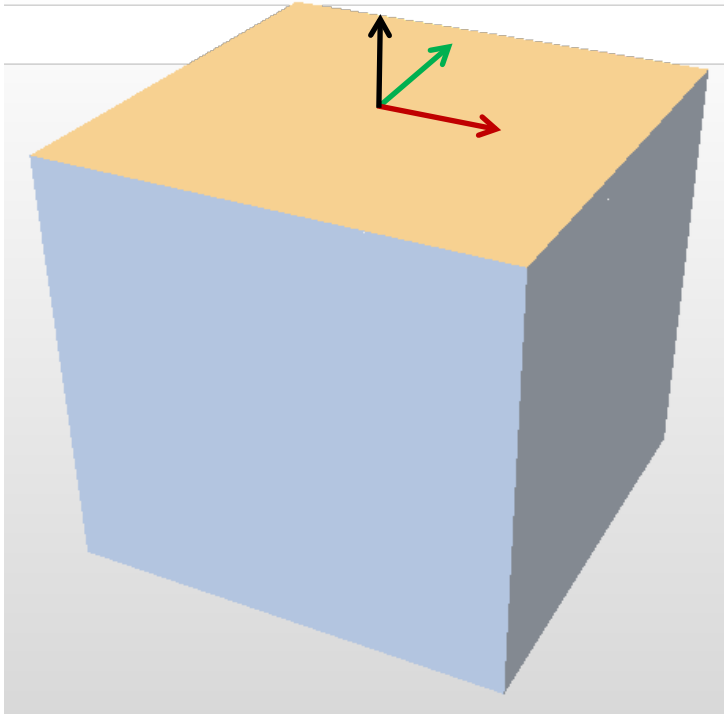
PROGRAM REVIEW SCREEN

DATA BLOCKS	SUB BLOCKS
1. TRANSFORM PLANE	
2. MILL CIRCLE (POCKET BOUNDARY)	
3. TRANSFORM PLANE END	
END OF PROGRAM	

Conversational - OR – G Code

```
X1.56 Y2.1224
G53 Z0
G69
G0 A0 B0
M30
```

…It's as easy as 1-2-3



Repeat…

Repeat…

Repeat…