

```

#include<stdio.h>
#include<conio.h>
#include<math.h>
#include<process.h>
#include<graphics.h>
int x1,x2,y1,y2,mx,my,depth;
void draw();
void rotate();
void main()
{
    int gd=DETECT,gm,c;
    initgraph(&gd,&gm,"..s\\bgi");
    printf("\n3D Transformation Rotating\n\n");
    printf("\nEnter 1st top value(x1,y1):");
    scanf("%d%d",&x1,&y1);
    printf("Enter right bottom value(x2,y2):");
    scanf("%d%d",&x2,&y2);
    depth=(x2-x1)/4;
    mx=(x1+x2)/2;
    my=(y1+y2)/2;
    draw();
    getch();
    cleardevice();
    rotate();
    getch();
}
void draw()
{
    bar3d(x1,y1,x2,y2,depth,1);
}

void rotate()
{
    float t;
    int a1,b1,a2,b2,dep;
    printf("Enter the angle to rotate=");
    scanf("%f",&t);
    t=t*(3.14/180);
    a1=mx+(x1-mx)*cos(t)-(y1-my)*sin(t);
    a2=mx+(x2-mx)*cos(t)-(y2-my)*sin(t);
    b1=my+(x1-mx)*sin(t)-(y1-my)*cos(t);
    b2=my+(x2-mx)*sin(t)-(y2-my)*cos(t);
    if(a2>a1)
        dep=(a2-a1)/4;
    else
        dep=(a1-a2)/4;
    bar3d(a1,b1,a2,b2,dep,1);
}

```

```
    setcolor(5);  
    //draw();  
}
```

Output

3D Transformation Rotating

Enter 1st top value(x1,y1):200 :
Enter right bottom value(x2,y2):

Enter the angle to rotate=135

⋮