

# CECILIANO VEGA ALBERTO

```
#include "glut.h"
float teta;

void init(void)
{
    glClearColor (0.0, 0.0, 0.0, 0.0);
    glShadeModel (GL_FLAT);
}

void cabeza(float x,float y,float teta)
{
    glPushMatrix();
    glClear(GL_COLOR_BUFFER_BIT);
    glColor3f(0.2,0.4,0.6);
    glTranslatef (0.0,2.15,0.0);
    glRotatef (teta, 0.0,1.0,0.0);
    glPushMatrix();
    glTranslatef (0.0,1.0,0.0);
    glScalef (2.0,2.1,0.2);
    glutWireCube (0.5);
    glPopMatrix();
    glPopMatrix();
}

void tronco(float x,float y,float teta)
{
    glPushMatrix();
    glTranslatef (0.0,0.0,0.0);
    glRotatef (teta, 0.0,1.0,0.0);
    glPushMatrix();
    glTranslatef (0.0,1.0,0.0);
    glScalef (3.5,6.5,0.2);
    glBegin(GL_TRIANGLE_STRIP);
    glVertex3f(0.38,-0.3,0.0);
    glVertex3f(-0.38,-0.3,0.0);
    glVertex3f(0.0,0.25,0.0);
    glEnd();
    glFlush();
    glPopMatrix();
    glPopMatrix();
}

void brazo1(float x,float y,float teta)
{
    glPushMatrix();
    glTranslatef (0.62,1.95,0.0);
    glRotatef (teta, 0.0,1.0,0.0);
    glPushMatrix();
    glTranslatef (0.7,-0.5,0.0);
    glScalef (3.0,0.7,0.2);
    glutWireCube (0.5);
    glPopMatrix();
    glPushMatrix();
    glTranslatef (1.5,-0.5,0.0);
    glScalef (1.6,1.3,0.2);
    glutWireCube (0.5);
    glPopMatrix();
    glPushMatrix();
    glTranslatef (2.0,-0.5,0.0);
    glScalef (1.0,0.8,0.2);
    glutWireCube (0.5);
    glPopMatrix();
}
```

```

glPopMatrix();
}
void brazo2(float x,float y,float teta)
{
glPushMatrix();
glTranslatef (-0.62,1.95,0.0);
glRotatef (teta, 0.0,1.0,0.0);

glPushMatrix();
glTranslatef (-0.7,-0.5,0.0);
glScalef (3.0,0.7,0.2);
glutWireCube (0.5);
glPopMatrix();
glPushMatrix();
glTranslatef (-1.5,-0.5,0.0);
glScalef (1.6,1.3,0.2);
glutWireCube (0.5);
glPopMatrix();
glPushMatrix();
glTranslatef (-2.0,-0.5,0.0);
glScalef (1.0,0.8,0.2);
glutWireCube (0.5);
glPopMatrix();
glPopMatrix();
}
void pierna1(float x,float y,float teta)
{
glPushMatrix();
glTranslatef (-0.3,-2.0,0.0);
glRotatef (teta, 0.0,1.0,0.0);
glPushMatrix();

glTranslatef (1.0,0.5,0.0);
glScalef (1.0,3.5,0.2);
glutWireCube (0.5);
glPopMatrix();

glPushMatrix();
glTranslatef (1.0,-1.25,0.0);
glScalef (1.0,3.5,0.0);
glutWireCube (0.5);
glPopMatrix();

glPushMatrix();
glTranslatef (1.0,-1.25,0.0);
glScalef (1.0,3.0,0.2);
glutWireCube (0.5);
glPopMatrix();

glPopMatrix();
}
void pierna2(float x,float y,float teta)
{
glPushMatrix();
glTranslatef (0.3,-2.0,0.0);
glRotatef (teta, 0.0,1.0,0.0);

glPushMatrix();
glTranslatef (-1.0,0.5,0.0);
glScalef (1.0,3.5,0.2);
glutWireCube (0.5);
glPopMatrix();
}

```

```

glPushMatrix();
glTranslatef (-1.0,-1.25,0.0);
glScalef (1.0,3.5,0.0);
glutWireCube (0.5);
glPopMatrix();

glPushMatrix();
glTranslatef (-1.0,-1.25,0.0);
glScalef (1.0,3.0,0.2);
glutWireCube (0.5);
glPopMatrix();

glPopMatrix();
}
void display(void)
{
glClear (GL_COLOR_BUFFER_BIT);
glColor3f (1.0, 1.0, 1.0);
glLoadIdentity ();
gluLookAt (0.0, 0.0, 5.0, 0.0, 0.0, 0.0, 0.0, 1.0, 0.0);

glPushMatrix();
glRotatef(teta,0.0,0.0,1);
cabeza (0,0,0);
tronco(0,0,0);
brazo1(0,0,0);
glPopMatrix();
brazo2(0,0,0);
pierna1(0,0,0);
pierna2(0,0,0);
glFlush ();
}

```

```

void teclado(unsigned char tecla, int x,int y)
{
    switch(tecla){

        case 'k':
            teta=teta+0.1;

            if(teta==6)
            {
                do{
                    teta=teta-0.1;
                }while(teta==0);
            }

            break;

        case 27:
            exit(0);
            break;
    }
    printf("\nteta: %f",teta);

    display();
}

```

```
}  
  
void reshape (int w, int h)  
{  
glViewport (0, 0, (GLsizei) w, (GLsizei) h);  
glMatrixMode (GL_PROJECTION);  
glLoadIdentity ();  
glOrtho (-5,5,-5,5,-10,10);  
glMatrixMode (GL_MODELVIEW);  
}  
int main(int argc, char** argv)  
{  
glutInit(&argc, argv);  
glutInitDisplayMode (GLUT_SINGLE | GLUT_RGB);  
glutInitWindowSize (500, 500);  
glutInitWindowPosition (100, 100);  
glutCreateWindow (argv[0]);  
init ();  
glutDisplayFunc(display);  
glutReshapeFunc(reshape);  
glutKeyboardFunc(teclado);  
glutMainLoop();  
return 0;  
}
```

