

Keytime Steps

Near the top of the program:

```
#include "setmaterial.cpp"
#include "setlight.cpp"
#include "osusphere.cpp"
//#include "osucone.cpp"
//#include "osutorus.cpp"
//#include "bmptotexture.cpp"
#include "loadobjfile.cpp"
#include "keytime.cpp"
//#include "glsprogram.cpp"
```

Right after those #includes:

```
Keytimes Xpos;
```

In InitGraphics():

```
Xpos.Init( );
Xpos.AddTimeValue( 0.0, 0.000 );
Xpos.AddTimeValue( 0.5, 2.718 );
Xpos.AddTimeValue( 2.0, 0.333 );
Xpos.AddTimeValue( 5.0, 3.142 );
Xpos.AddTimeValue( 8.0, 2.718 );
Xpos.AddTimeValue( 10.0, 0.000 );
```

In Display():

```
SetPointLight( GL_LIGHT0, ...)
glEnable( GL_LIGHTING );
glEnable( GL_LIGHT0 );

// turn # msec into the cycle ( 0 - MSEC-1 ):
int msec = glutGet( GLUT_ELAPSED_TIME ) % MSEC;    // 0-9999

// turn that into a time in seconds:
float nowTime = (float)msec / 1000.;                // 0.-10.

glPushMatrix( );
    glTranslatef( Xpos.GetValue(nowTime), 0., 0. );
    glCallList( CowList );
glPopMatrix( );

glDisable( GL_LIGHTING );
```