

Ice Cream Cone

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Video: https://media.oregonstate.edu/media/t/0_vvwqj476

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ConeList = glGenLists( 1 );
glNewList( ConeList, GL_COMPILE );

    glColor3f(.8, .6, .4);
    int num_segs = 50;
    int num_circles = 300;
    float dang = 2. * M_PI / (float)(num_segs - 1);
    float ang = 0.;
    float radius = 0.;
    float height = 0.;

    for (int i = 0; i < num_circles; i++) {
        glBegin(GL_LINE_LOOP);
        for (int j = 0; j < num_segs; j++) {
            glVertex3f(radius * cos(ang), radius * sin(ang), height);
            ang += dang;
        }
        glEnd();
        ang = 0.;
        radius += .002;
        height += .005;
    }

glEndList( );

IceCreamList = glGenLists(1);
glNewList(IceCreamList, GL_COMPILE);
    GLUQuadricObj* quad = gluNewQuadric();
    gluSphere(quad, radius, 50, 50);

glEndList();

FullConeList = glGenLists(1);
glNewList(FullConeList, GL_COMPILE);

    glCallList(ConeList);
    glColor3f(0.60, 1.00, 0.60);
    glTranslatef(0., 0., height);
    glCallList(IceCreamList);
    glColor3f(0.48, 0.25, 0.00);
    glTranslatef(0., 0., radius);
    glCallList(IceCreamList);
    glColor3f(0.99, 0.35, 0.55);
    glTranslatef(0., 0., radius);
    glCallList(IceCreamList);
    glColor3f(0.95, 0.90, 0.67);
    glTranslatef(0., 0., radius);
    glCallList(IceCreamList);

glEndList();

```

