

CS 420

9/24

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## HW3D

### Step 4 - Object Manipulation

The transformation matrix,  $m$ , is computed in motion

'O' toggles the transformed object.

'm' toggles SkyCam manipulation mode  
- note the caveats.

3 functions:

```
static void setObjRbt(Matrix4 m) in  
asst2.cpp.
```

```
inline Matrix4 makeMixFrame(const Matrix4& m,  
const Matrix4& o,  
const Matrix4& e)
```

```
inline Matrix4 doMtoOwrtA(const Matrix4& m,  
const Matrix4& o,  
const Matrix4& a)
```

latter 2 both in matrix4.h, at end.

2

Step 5 - Mouse Movement

m's sign only needs to be changed  
in cases 2 and 3:

$$m = \text{inv}(m);$$

Once you determine the logic  
involved, you'll implement the logic  
in motion.