Lab 3 - Transformations

Start Assignment

- Due Oct 23 by 11:59pm
- Points 3
- Submitting a media recording or a file upload

Complete the In-Class exercise on Transformations as descripted in the lecture slides (Lecture 9 - 3D Transformations) . Submit your ofApp.cpp and ofApp.h files along with a short movie demonstrating your solution.

A good example on how to set up simple sliders in your applications is in:

< your OF_DIR>/examples/gui/guiExample

When you build a project, be sure to include the add-on: ofxGui

You will also want to use the EasyCam as we did in the rendering project. The source for the intersection lab is a good place to start.

Please submit video and source.

Example Draw Function which has a grid and EasyCam:

```
void ofApp::draw(){
    ofSetBackgroundColor(ofColor::black);

    // draw the GUI
    if (!bHide) gui.draw();

    // begin drawing in the camera
    //
    cam.begin();

    // draw a grid
    //
    ofPushMatrix();
    ofRotate(90, 0, 0, 1);
    ofSetLineWidth(1);
    ofSetColor(ofColor::dimGrey);
    ofDrawGridPlane();
    ofPopMatrix();

    //
    // draw any other objects here...
    //



    //  end drawing in the camera
    //
    cam.end();


}
```

```
// examples of glm transformation functions
//
glm::mat4 trans = glm::translate(glm::mat4(1.0), glm::vec3(pos));
glm::mat4 rot = glm::rotate(glm::mat4(1.0), glm::radians(rotation), glm::vec3(0, 1, 0));
glm::mat4 scale = glm::scale(glm::mat4(1.0), this->scale);
```