# **Project Manual**

# Computer Graphics I, Spring 2018

(Zubin Bhuyan)

This project is implemented in HTML/CSS and Javascript. It does NOT require any sort of build, compilation or installation. (However, it has to be hosted in a server.)

It requires a web browser which supports WebGL.

WebGL support can be checked in this link: <a href="https://caniuse.com/#feat=webgl">https://caniuse.com/#feat=webgl</a>
The webpage displays a basic cube with with side ratio 1:1:1.25.

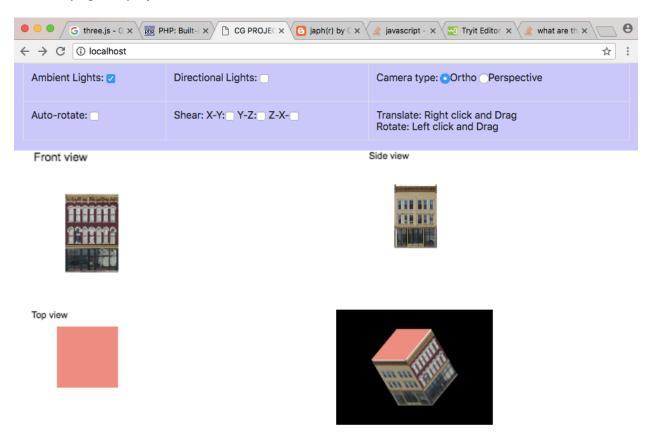


Fig. 1 Screenshot of webpage.

## How to Use

#### **CHECKBOXES**

The webpage has two parts, the controls buttons and the canvas. Fig. 1 is the screenshot of the webpage. There are checkboxes, respectively for enabling (or disabling) features:

- Ambient light (Switched on by default)
- Directional light
- Auto-rotate
- Shear
  - Along XY, YZ and ZX (can be set individually)
- Orthographic and Perspective camera option (Radio buttons)

#### **MOUSE CONTROLS**

• Rotation/Orbit: Left click and drag

• Translation: Right click and drag

Zoom in/out: Scroll

### **KEYBOARD CONTROLS**

<u>Translation/Pan</u>: The keyboard arrows (Left, Right, Up, Down) can be used.