Homework 2

CSU0021: Computer Graphics

You will implement a WebGL program to draw a nice look object with reasonable multiple and hierarchical joints. For example, a robot or a excavator... . The object should have at least a three level hierarchical joint. Your program should also allow user to control the object and its joints. When you move the object or joints, you should get helps from the concept of the hierarchical transformation.

Your object should consist of different shapes, at least

- a rectangle
- a triangle
- a circle or ellipse

, and at least three different colors.

You should also allow user to

- move the whole object along the x-axis
- move the whole object along the y-axis
- scale the whole object up and down
- control and rotate these joints

You can check this short demo video of this homework here, https://www.youtube.com/watch?v=tvC3LE2GfC0&list=PLsId7efYPyAah0Z64j9DpedSVAcvzOSKb&index=5

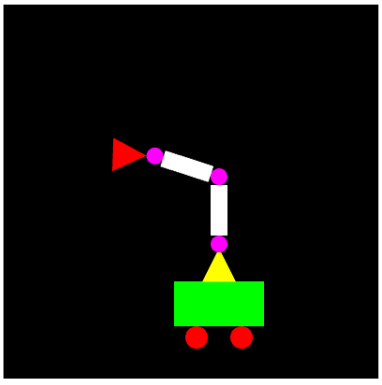

Figure 1: Example

Submission:

- You have to submit your program to moodle before the deadline. Otherwise, late submission penalty will be applied.
- You have to put all files (index.html, js) in a folder, zip the folder, rename the zip file to your student ID (e.g., 407470888s.zip), and submit this zip file to moodle. Ensure that TA can unzip your zip file and drag index.html to the browser to run without any extra work. If you do not follow this rule, your homework will be penalized.
- **You have to schedule time with TA to demonstrate your homework (you will not receive any points if you don't):**
  - Please book a 5 minutes time slot here before moodle submission deadline: https://tinyurl.com/y5lgb4js
  - You are welcome to bring your laptop for this demonstration. **If you will not bring your laptop, make a note when you book the time slot.**
  - make sure you arrive on time
  - TA office: Room 109 Applied Science Building.
  - TA email: 60847071s@gapps.ntnu.edu.tw
  - **If you submit the homework late, you still have to email TA and book a time for demonstration again. Otherwise, you will not receive any points.**