

**Hacettepe University**  
**Computer Engineering Department**  
**BBM 414 Computer Graphics Lab.**  
**Experiment 1**

**Subject:** WebGL2 canvas and simple drawing

**Submission Deadline:** 25.10.2021 23:59

**Advisors:** Asst. Prof. Dr. Ufuk ÇELİKCAN, T.A. Zeynep BALA

**Tasks**

You will need to perform the required steps below:

- Using **WebGL2**, create a canvas.
- Implement gl's drawing function to draw the requirements below.
  - Draw a yellow emoji with a mask on a white background. The end result is supposed to look like the figure below.



- The mask will have arcs with its strings. Use **Bézier curve** to calculate the arc points.

## Notes and Restrictions

- Implement your homework using **WebGL2**. All programming assignments must use the shader-based functionality of **WebGL2**: at least one vertex shader and one fragment shader.
- The assignment must be original work. Turning in someone else's work, in whole or in part, as your own will be considered as a violation of academic integrity. Please note that the former condition also holds for the material found on the web as everything on the web has been written by someone else. **Detection of such plagiarism in a submission will automatically void the submission and establish grounds to trigger an official disciplinary investigation.** General discussion of the assignment among peers is allowed, but do not share answers, algorithms or source codes. **Also using other resources (example source code, book, webpage etc.) as a code and javascript libraries (except jquery, Angel's book) are not allowed.**
- **Do not write the scripts into the html file. Reference your scripts in html file.**
- Style and appropriately commented code matter.

## Submission

- You should submit entire Netbeans or Webstorm project directory including javascript files and html file in a zip file extracted from IDE.
- Submission file structure is as given in below:  
    <student\_number>.zip  
    |---Experiment1\_2020      **(The whole Netbeans or Webstorm project)**
- You should upload your files via "Online Experiment Submission System" which is at <http://submit.cs.hacettepe.edu.tr>
- **Do not submit any file via e-mail.**
- **No submission will be accepted after deadlines.**