# P06

# Transformation

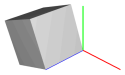
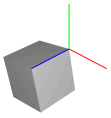
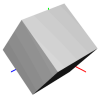
Self-Scoring table

| | P01 | P02 | P03 | E01 | E02 |
|---|---|---|---|---|---|
| Score | 1 | 1 | 1 | 1 | 1 |

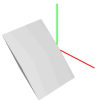
2020203052 권빈

# Practice

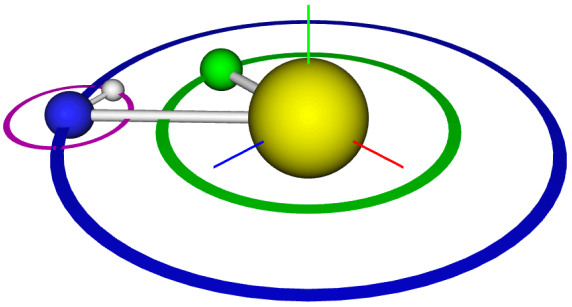
## -P01

| Rotation | Rotation Pivot | Rotation GLM |
| --- | --- | --- |
|  |  |  |
|  |  |  |

## -P02

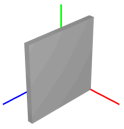
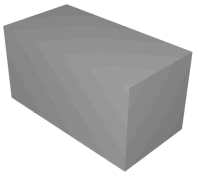
| Scaling | Scaling Pivot | Direction Scaling |
| --- | --- | --- |
|  |  |  |
|  |  |  |

## -P03

| Solar system |  |
|---|---|

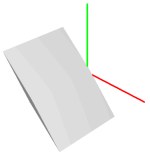
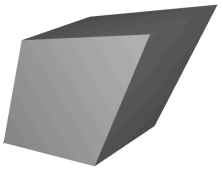
## Exercise

## -E01

| Scaling wrt a pivot with GLM | |
|---|---|
|  |  |

기존에 OpenGL로 pivot만큼 Translate, s만큼 Scale, -pivot만큼 Translate하여 구현했던 것을 GLM으로 구현하기위해 Matrix를 생성하고 그 matrix에 glm::translate(M,pivot), glm::scale(M,vec3(s,1,1)), glm::translate(M,-pivot)을 사용하여 구현하였다.

## -E02

| Scaling wrt a direction with GLM | |
|---|---|
|  |  |

기존 OpenGL에서 구현하였던 것과 같이 axis를 설정하고

theta는 GLM에서는 라디안각을 사용하기 때문에 M_PI를 곱했던것을 삭제하였다.

그 뒤 Matrix를 생성하고 그 matrix에 glm::rotate(M,theta,axis),

glm::scale(M,vec3(s,1,1)), glm::rotate(M,-theta,axis)를 사용하여 구현하였다.