TravelToTheSun

Objective

Practice declaring and assigning variables of different types. Learn random() and a bit of 3D rendering.

Instructions

You are going to simulate traveling to the sun in a rocket ship. Use variables as needed.

1) Put your name as a comment.
2) Copy and paste this code into a sketch. Get familiar with what it is doing.

```
void setup(){
  fullScreen(P3D); //makes sketch fullscreen and allows you render 3D shapes
  //Note: Some Mac graphic cards have issues with this lab
}

void draw(){
  background(0, 0, 255);
  noStroke();
  lights(); //adds shading effect
  translate(width/2, height/2, 0); //sets the origin of the sketch Note: 0 is the Z coordinate!
  fill(#E9FF05);
  sphere(25); //makes a sphere at the origin 25 pixels in diameter
}
```

3) Make the sphere grow in size 0.1 pixels in diameter (really 1 pixel every 10 frames). Run the sketch. Sun is getting bigger!

4) Make the background color go from blue to black by subtracting 0.3 from the blue value (don't worry about going less than 0) Run the sketch. We should be moving into outer space.

5) You are on a rocket ship so the ship is shaking. We need to oscillate the sun up, down, left and right randomly so we get that effect. Modify the translate method call so instead of it drawing the origin exactly in the middle of the screen, it draws the origin in the middle of screen +/- 2 pixels on the x and y axis randomly.

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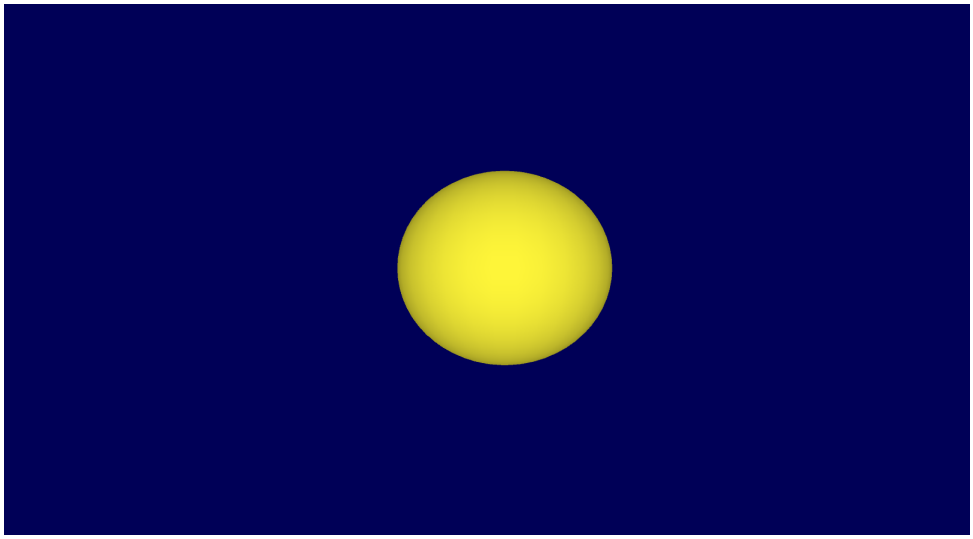
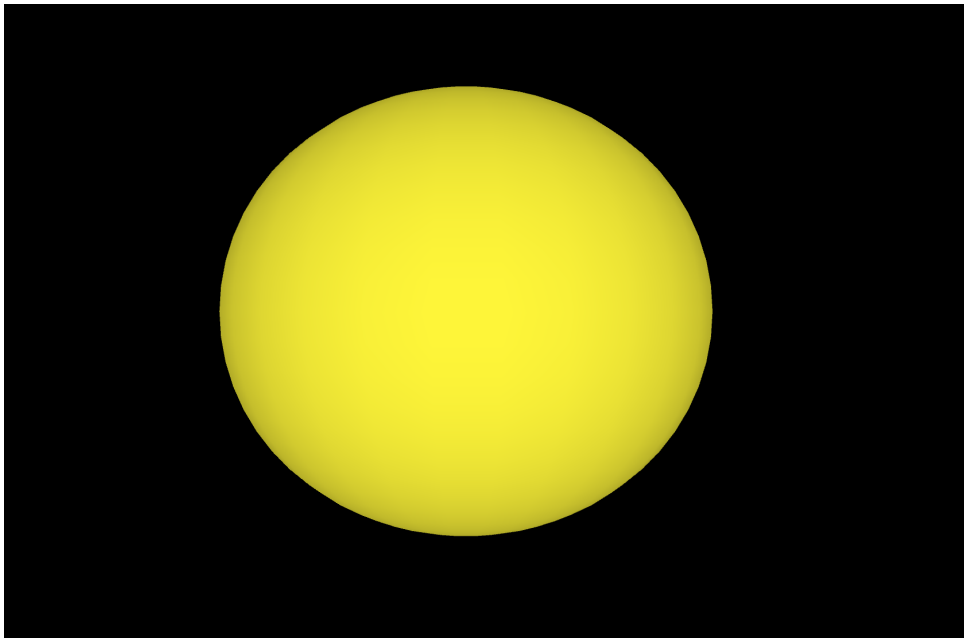
Examples





Hints

Avoid creating variables called width, height, frameRate, and size. Those are built in variables in processing and will cause you great pains debugging your program.