

3D Modeling Project #1

COLOR BAR

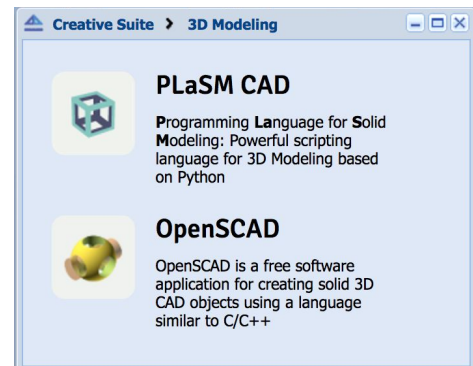
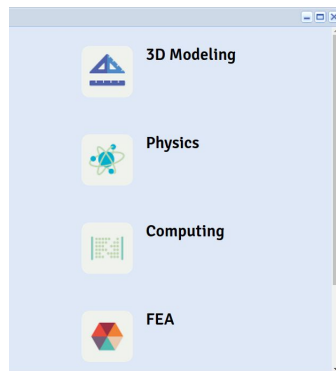
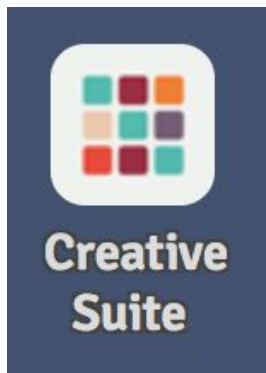
Use **code** to create a **palette of colors**.

Welcome!

All NCLab 3D modeling projects will use the NCLab **Creative Suite**. Before you can begin your project, you will need to navigate to the **PLaSM CAD** app within the Creative Suite.

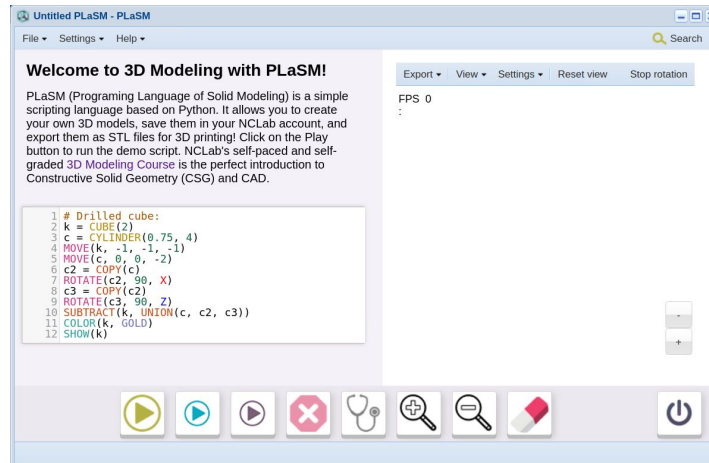
To access the Creative Suite:


1. Double-click the **Creative Suite** icon on your NCLab Desktop.
2. Select **3D Modeling**.
3. Open **PLaSM CAD**.

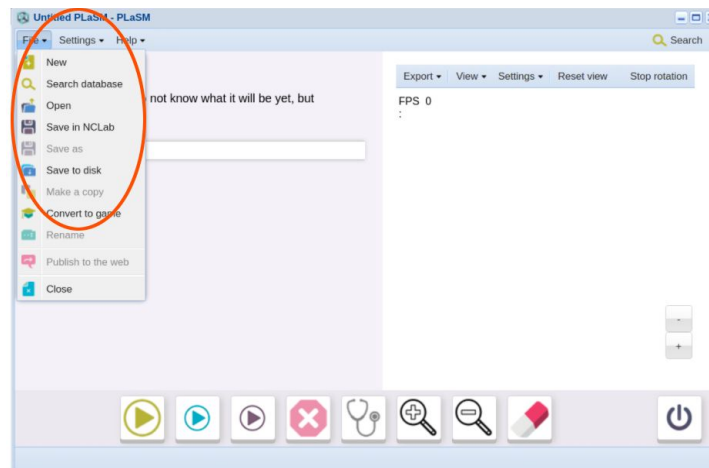


Saving Projects in NCLab

The app will open in a **PLaSM CAD worksheet**.



Click on the  button to remove the **demo script**:



Click the **File** menu in the upper-left corner, then select "**Save in NCLab**". Select the folder **3d-course-projects** and give your file a **descriptive title**, "color-bar" will work.

File name:

Click OK. Your file will be autosaved as you work, you can begin your first project.

Project Goal

The goal of your **first project** is to create your own **color bar**. A **color bar** is a useful tool for **organizing and viewing** different colors.

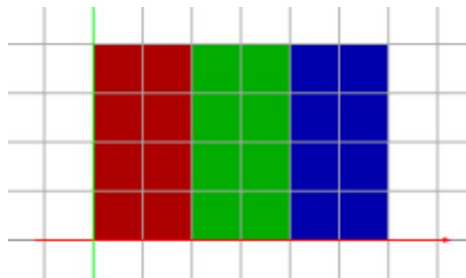
Make a Color Bar

You can use the command **COLORBAR()** to construct your color bar.

The program below will create a new **color bar** with the colors RED, GREEN, and BLUE. Type the following commands in your code window:

```
1 bar = COLORBAR(6, 4, RED, GREEN, BLUE)
2 SHOW(bar)
```

This program produces a **6x4 color bar** with three colors:



You can modify the **first two arguments** in the **COLORBAR()** command to change the **dimensions** of your color bar.

```
1 bar = COLORBAR(10, 2, RED, GREEN, BLUE)
2 SHOW(bar)
```



A color bar with a **width of 10** and a **height of 2**.

Adding More Colors

NCLab provides many predefined color palettes, including **materials** (COPPER, WOOD, ...), **fruits** (BANANA, STRAWBERRY, ...), and **ice cream colors** (MINT, VANILLA, ...).

Predefined colors can be used by typing the name of a color in **capital letters**. You can list **as many colors as you like**.

The following code creates a color bar with **4 metallic colors**:

```
1 bar = COLORBAR(6, 4, GOLD, SILVER, COPPER, BRONZE)
2 SHOW(bar)
```



Design Your Own Color Bar

Create a color bar using the COLORBAR() command. Get creative and experiment!



A Neapolitan color bar

Project Checklist

Your project will be finished when:

1. You have run the `COLORBAR()` command without errors.
2. Your program is saved as `Project-1` in the folder `course-3D-projects/`.