**Required library:**

* trimesh.py requires trimesh library to install anaconda’s pip system. ‘without $’

$ *pip install* [*https://github.com/mikedh/trimesh.py/archive/master.zip*](https://github.com/mikedh/trimesh.py/archive/master.zip)

* Create a project on anaconda and then insert a module {mine named as read\_stl\_test.py}

import numpy as np

import trimesh

# load\_mesh can accept a filename or file object,

# however file objects require 'file\_type' specified (eg. file\_type='stl')

# on load, does basic cleanup of mesh, including merging vertices

# and removing duplicate/degenerate faces

mesh = trimesh.load\_mesh('spine\_model.stl')

# split mesh based on connected components

# by default this will only return watertight meshes, but the check can be disabled

meshes = mesh.split()

# first component

m = meshes[0]

# assign all faces a color

#m.generate\_face\_colors()

# find groups of coplanar adjacent faces

facets, facets\_area = m.facets(return\_area=True)

# the largest group of faces by area

largest\_facet = facets[np.argmax(facets\_area)]

# set all faces of the largest facet to a random color

m.faces[largest\_facet] = trimesh.color.random\_color()

# preview mesh in an opengl window

m.show()

This module requires assimp but I didn’t install it yet. But I will try in advance (next weekend).

I am a bit skeptic about this module. I need to check the other modules. One I’ve found the followings as alternatives:

* <https://pypi.python.org/pypi/numpy-stl>
* <https://github.com/kliment/Printrun>