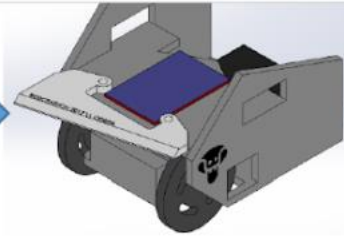
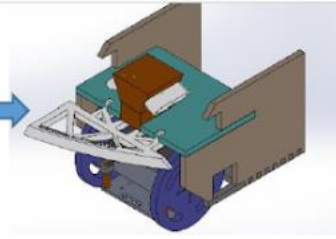


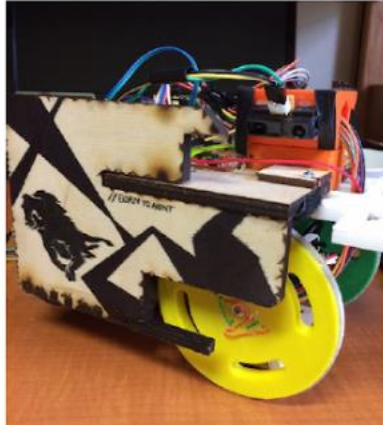
Rough concept design using known dimensions of given parts



First model for virtual environment testing with higher part detail



Production-ready design after using testing results for modifications



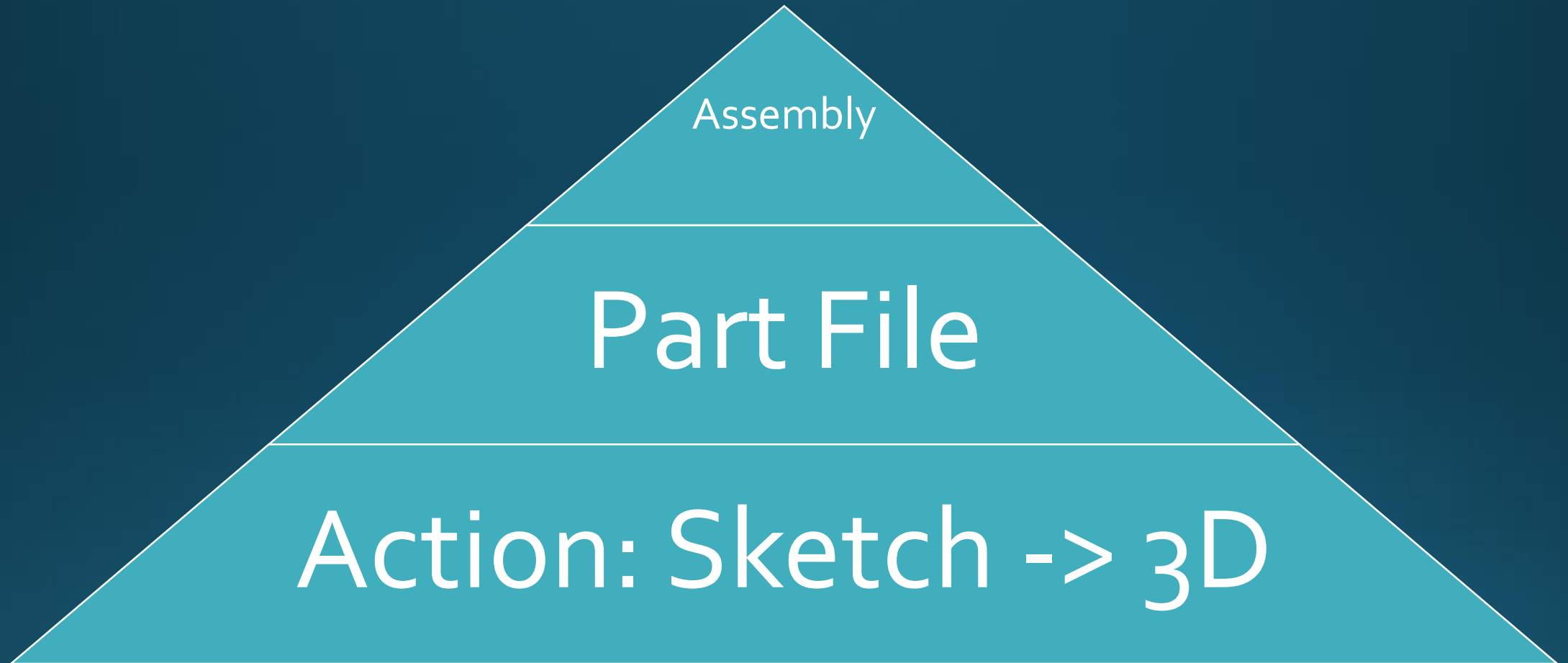
Zahin Nambiar

Advanced CAD and Manufacturing

Resources

- Things to install:
- **CAD** – Fusion 360 or Solidworks
- **Photoshop Software** – Inkscape is free!
- **3D printer software** – Craftware
- **Laser Cutter Software** – Retina Engrave 3D
- **Document:** RAS Chassis Building 101 -
https://docs.google.com/document/d/1V7dVVRgwskorU8LLmsG7Lilq_SFBCxJGBVIj3MAKNCU/edit

Hierarchy of CAD



3D printing considerations

Tolerances:

3D printed – 3D printed:

+ .01" = friction fit

+ .02" = loose fit

Laser cut parts – Laser cut parts – No tolerance required

Features on 3D printed parts for mounting hardware

+ .015"

Laser cutting tutorial

- Follow along!

3D printing tutorial

- Follow along!