**DIP/FYP Syntactic Design Guidelines**

* Software required: Autodesk and Keyshot
  + <https://www.autodesk.com/education/free-software/inventor-professional>
  + <https://www.keyshot.com/>
  + Account creation to be done with your NTU email [**XXXX1224@e.ntu.edu.sg**](mailto:XXXX1224@e.ntu.edu.sg), Autodesk account to be free for students for up to 3 years
  + Alternatively, both of the above software are used in DA3000 (IEM Yr 3 Art Core), hence they are already pre-installed in the Software Engineering Lab, so students can opt to do the modelling in the lab instead.
  + **Autodesk:** Software meant for 3D modelling of your project
  + **Keyshot:** Software meant for rendering your 3D model of your project by adding colours and texture and so on
* Guidelines to using Autodesk and Keyshot
  + Divide your project into their individual components [ Skeleton, body, etc etc]
  + Draw and model all your components on Autodesk based on your project dimensions
    - **For in-depth guidelines on how to use the Autodesk component building, please refer to your DA3000 module.**
  + After completing the individual components, start a assembly which basically helps you to combine all your components into your actual project
    - **For in-depth guidelines on how to use the Autodesk component building, please refer to your DA3000 module.**
  + After completing the assembly, export your completed project as an .kpa file, before opening it on Keyshot
  + Adding the texture and colors to the project based on the materials you used like plastic or metal. You can also add on spotlights to your project to create a certain shine in your final jpg file.
    - **For in-depth guidelines on how to use the Keyshot rendering,please refer to your DA3000 module.**
* Final compilation of the project design poster
  + Add on to your rendered image of your dimensions and more details by using external image editing tool
    - Some example software that can be used:
      1. Adobe Illustrator [Some DA2000 classes use this for their module]
      2. Adobe Photoshop [Not free, but can install trial for a one-time usage]
      3. Paint [Free for everybody but lower quality on aesthetic]
      4. Autodesk Sketchbook [Free for students for 3years with student account]