**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**, 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 an 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, 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:
        + Adobe Illustrator [Some DA2000 classes use this for their module]
        + Adobe Photoshop [Not free, but can install trial for a one-time usage]
        + Paint [Free for everybody but lower quality on aesthetic]
        + Autodesk Sketchbook [Free for students for 3years with student account]