IB Design Technology Summer Assignment – Summer 2020

Part 1: Identify 3 products in your household that don’t fulfill your needs (does not work, is frustrating, complicated, falls short of expectations, etc.)

For each product: Identify the problem it solves. How is the product used? What does it do well? Where does it fail to meet your expectation? How would you improve if given the opportunity? Sketch out and describe some redesigns.

Part 2: Video Review

Watch each of the following videos and reflect on the content. These videos have been selected as an introduction, review, or exploration of many of the focuses on the IBDT course. After viewing the videos, post/upload a reflection. Each video is entered as an assignment with a premade reflection. Focus your reflection on what you already knew, what you learned, what did you find interesting/exciting, what seemed confusing/scary, and how you anticipate using this knowledge. If you have background in the topic, share your tips and tricks. The goal of these assignments is to gain perspective and foundational knowledge. Evaluation of this summer assignment will not exceed more than 10% of the first quarter grade.

What is Product Design?

- Project Success: Defining the Problem (6 minutes)
  https://www.youtube.com/watch?v=iwddgAoGBqq
- The Art of Engineering: Industrial Design at Delta Faucet (9 minutes)
  https://www.youtube.com/watch?v=c1ksrjRA678

Sketching/Modeling

- How to Sketch like a Product Designer (12 minutes)
  https://www.youtube.com/watch?v=L9D9JWS29h4
- The Best Exercise to improve your sketching (6 minutes) (post a photo of your sketch!)
  https://www.youtube.com/watch?v=s72RpWljfgg

Anthropometrics

- Introduction to Anthropometrics (3 minutes)
  https://www.youtube.com/watch?v=kPqJo33tE_l
Inventor Tutorial *Please note: we might be switching to another drawing platform this fall, but you should be familiar with Inventor*

- Quick Inventor Tutorial (12 minutes)
  https://www.youtube.com/watch?v=NoQtUgSR9cA
- Inventor 2018 Basics in 30 Minutes – OPTIONAL – If you want to know more (27 minutes)
  https://www.youtube.com/watch?v=msXjD96ayIY

Fusion 360 Tutorial *Please note: this might be our new drawing platform this fall*

- Fusion 360 Tutorial (22 minutes)
  https://www.youtube.com/watch?v=eaVb4NiVazM&list=RDCMUcIMwMz3RMbW5mbx0iDcRQ2g&index=8
- Fusion 360 Tutorial (20 minutes)
  https://www.youtube.com/watch?v=A5bc9c3S12g

Material Science

- Introduction to Materials (12 minutes)
  https://www.youtube.com/watch?v=R8EVi8R8f5Tw

Manufacturing Processes

- Types of Manufacturing Process (3 minutes)
  https://www.youtube.com/watch?v=koULXptaBTs
- 3D printing/Additive Manufacturing (2 minutes)
  https://www.youtube.com/watch?v=_mhN1d768o8
- CNC (7 minutes)
  https://www.youtube.com/watch?v=FNYEXjRmDtl
- Laser Engraving (2 minutes)
  https://www.youtube.com/watch?v=SjUVCho_xU
- Fabrication Lab (7 minutes)
  https://www.youtube.com/watch?v=3pc-nnAykTQ