Initial Setup

* **Flow-cell Setup**
  + 3D print tanks out of ABS.
  + Waterproof tanks.
  + Setup Tanks in series with pump using vinyl tubing.
  + Fill fluid to maximum established height.
  + Check for leaks in tanks and tubing.
  + Test the Flow Rate (Must match the Reynolds Number of Blood in Coronary Artery).
  + Place entire system in incubator set at 37 C.
* **Setup Tensile Incubator**
  + Design/Manufacture the incubator.
  + Clean.
  + Water sealed.
  + Test with PLA dummy sample.
* **Manufacture Material Samples**
  + CNC aluminum mold.
  + Mold 400 dummy samples out of PLA.
    - Check for bubbles, uniform thickness, and weight variance.
  + Mold 100+ samples for each testing material.
    - Check for bubbles, uniform thickness, and weight variance.
    - Re-mold samples that do not pass inspection and flash material.
  + Collect all samples into sanitary containers separated by material type.
* **Sample Randomization Matrix**
  + Generate a computer randomized matrix for sample location in tanks.
  + Generate a randomized collection process based on the number of samples being tested each day.
  + Print out both matrices.
* **Prepare Environment**
  + Set incubator to 37 C.
  + Set pump to regulation speed.
  + Secure.
* Ready for Testing