* LEGO ID & Sorter
  + Hardware
    - Feeding Hopper
      * Angled Conveyor Belt
        + I’m going with an angled conveyor that will drag bricks from the bottom of the pile
    - Physical Brick Detection
      * EV3 Infrared Sensor
        + The Mindstorms EV3 robot comes with an infrared sensor that I will use to detect bricks and pause the conveyor belt to to take pictures
    - Conveyor Belt
      * PVC Pipe
      * Roll of Paper
      * Stepper Motor
    - Image Capture
      * Raspberry Pi
        + This is not powerful enough to do the heavy lifting, so this will be taking the pictures, and then sending them to the host with NVIDIA gpu for processing
      * CanaKit 8MP Camera
    - Image Correlation
      * NVIDIA RTX 2070
        + Already purchased, works great
    - Sort into Bin
      * Compressed air
        + Like I’ve said before, this could be the toughest part of the project for me because I will need to teach myself some mechanical engineering
      * Large plastic bins
  + Software
    - Algorithm Training
      * Training Image Set
        + Extremely tedious task, I will likely need 50-100 images for each brick that I will be sorting
    - Image Capture
      * OpenCV
      * Backlit LED Paper Conveyor
    - Image Correlation
      * Tensorflow
        + Tensorflow is an extremely robust neural network software that can only be used on NVIDIA gpus with CUDA
      * CUDA Toolkit
        + This is a toolkit allowing for the programming of Python on NVIDIA GPU
      * Python
    - Display Predicted LEGO ID, Confidence %
      * Matplotlib
    - Sort into Bin
      * time.sleep
      * PLC for compressed air
        + No idea how this will work, I’ve got next to no mechanical engineering exp so this could be very tough