Young Yoo Kim

design engineer – end to end product development

youngyookim@outlook.com / +1 267 644 8785
275 S Bryn Mawr Ave, H52, Bryn Mawr, PA 19010

United States Permanent Resident / South Korean Citizen

education ///

Drexel University	Philadelphia, PA
B.S. Mechanical Engineering	2013 –2019

experience ///

Harbor Designs & Manufacturing	Baltimore, MD
Design Engineer	Sep. 2016 – Mar. 2017

- Industrial designer and mechanical design engineer for ISO 9001 and 13485 certified company that designs and manufactures consumer, industrial, and biomedical products
- Used Solidworks to design parts for rapid prototyping and mass production
- Designed camera enclosure prototype for the defense industry
- Designed weather & tamper-resistant enclosure for an intrusion detection device to be installed in warehouse facilities of the largest internet retailer in the US
- Designed onboard information system mounting solutions for Caltrans Surfliner trains
- Communicated with clients in regular meetings for project kickoff, design review, and delivery
- Communicated with oversees manufacturing companies for prototyping and mass production

Southco, Inc	Concordville, PA
Automotive Engineer	Sep. 2014 – Mar. 2015

- Automotive mechanical engineer at the global headquarter of industry leading access hardware engineering firm
- Used NX to design parts for FDM, machining, and injection molding
- Researched and developed prototypes of a patented electromechanical marine latch
- Designed assembly fixtures to improve manufacturing speed and lower physical strain of assemblers
- Presented conceptual design to one of the US's "Big Three" companies under NDA to compete with a rival firm
- Collaborated with electrical engineering, NPD, testing, and tooling departments within the company
- Communicated with international Southco manufacturing facilities in China and Mexico

projects ///

Drexel Univ. Senior Design	Seamless Laptop	Independent Projects	Web Design
- Micro Air Vehicle w/ pick up and place capability - Head of design and prototyping - Innovative modular chassis - Project in-progress	- Low power laptop enclosure prototype (wood, aluminum, and acrylic versions) - For class of 2018 Drexel students' senior design - Modularity and cost focused IoT prototyping platform	- Portable ophthalmic surgical microscope stand concept - Remote computer access point enclosure concepts - Furniture Design - System Builder – Medical, CAD, Personal Computers	- Portfolio Website youngyookim.com - Vision Care USA (NPO) visioncareusa.org - Google Domains, Google Analytics, AWS LightSail, cPanel, Git

Halteres Function Demo	4R Robotic Arm	Lab Experiences	Medical Volunteer
- Two winged ornithopter with haltere function demo - Single motor, gear train, and linkages for synchronized flapping wings and halteres	- Arduino powered robotic arm with 3R dual linkage arm and 1R gripper for pick and place challenge - Joint by joint control with potentiometers	- Manometer (fluid/wind tunnel) - Vortex tube, steam turbine - LabVIEW VI – closed-loop/open-loop controls - Inverted pendulum - Microfabrication – Si, SiO_2	- 7 years of volunteering with an international blindness prevention relief organization, Vision Care - Nurse Assistant & Sterilization Manager

technical skills ///

CAD	Design Using – Solidworks, NX, PTC Creo, Autodesk AutoCAD/Fusion360/Inventor/Moldflow, Onshape, SketchUp Design For – Plastic injection molding, Laser cutting, Sheet metal, CNC Machining/Lathe, 3D Printing
Essentials	Operating Systems – Windows 7, Windows 10, macOS, iOS, Android Utilities – MATLAB, Microsoft Office Suite, Adobe Creative Suite (Ps, Lr, Ai, Id), CURA Web Design – HTML, CSS, JavaScript, Brackets, GitKraken, Github, Google Analytics