

Dewey Chen

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SCHOOL PROJECTS



Stirling Engine Project

Using drill presses and lathes on brass and aluminium, I followed the blueprint and used machined and 3D-printed parts and made a Stirling engine which is a closed-cycle heat engine which uses the expansion and compression of air at different temperatures to convert to mechanical work.



Wooden Adjustable Wrench Project

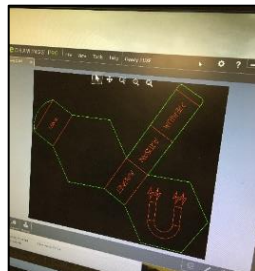
Given a badly-designed blueprint on purpose, we had to redesign it on Solidworks, cut it out with a laser cutter and work on it with band saws and sanding drums.



Packaging Design Project

Given a sheet of cardboard and an object, a magnet for my case, we had to design a

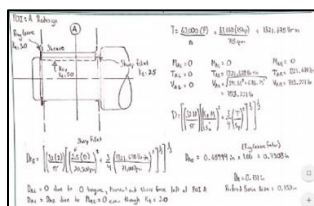
luxurious packaging for it. I used Solidworks to sketch out a flattened 2D design first, saved it as a DXF and have it cut out with a laser cutter.



Car Detailing Tool Final Project Development

We produced a fully detailed (complete set of dimensioned and tolerance drawings with GD&T), integrated design incorporates usability, aesthetics, cost, functions and manufacturability. We investigate potential market competition chose suitable materials

and manufacturing methods for the production quantity. Full report including sustainability report, concepts, working prototypes, final CAD model and renderings upon request.



Shaft Redesign

Given a 1939-ish flat-belt-drive I was tasked to provide a clear and precise manual calculation for various minimum required diameters, then redesign with a new 2-inch offset and take the

opportunity to fix the original design flaws.

EDUCATION

SAIT — Mechanical Engineering Technology

September 2016 - April 2018

Currently upon completion the 4 semester 2-year program.

GPA 3.44 in Design and Development stream

SKILLS

- Proficient in using modeling and simulation programs such as Solidworks, Inventor, Revit, Fusion 360, Autocad and Stingray.
- Also proficient in using Microsoft Office programs such as Word, Project, Excel and PowerPoint.
- Familiar with machining tools such as drill presses and lathes.
- Experiences with hydraulic circuit and programming PLCs

CERTIFICATES

- AGLC ProServe Training for responsible liquor sales and service
- First Aid Lifesaving Standard First Aid/AED & CPR
- Anti-Money Laundering Certificate for Life license to sell insurance
- Red Cross Babysitting Certificate

LANGUAGES

English - Read, speak, write

Mandarin - Read, speak

VOLUNTEER EXPERIENCES

Youth Volunteer Corp — Senior Volunteer

October 2015 – June 2016

Assisted team leaders with various on-site project tasks. Mentoring fellow youth volunteers and lead tasks/project duties by example.

Winsport — Volunteer

July 2015 – August 2015

Assisted camp leaders with kids in various summer camp activities including luge, swimming and mountain biking.

School Tutoring

September 2015 – June 2016

Tutoring Grade 10 and 11 students in math and sciences.