SHOULD YOU STUDY ENGINEERING?

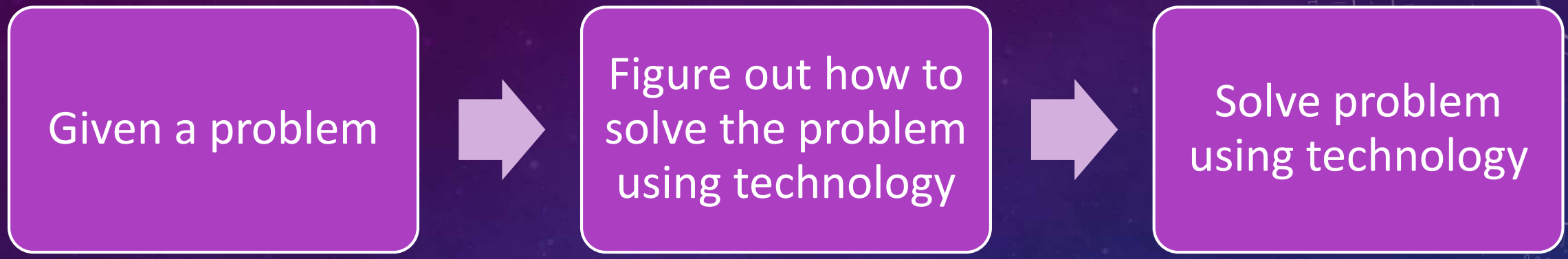
A BIT ABOUT ME…

HENRY POON

SOFTWARE DEVELOPMENT ENGINEER AT AMAZON

BACHELOR DEGREE IN MECHANICAL ENGINEERING (MECHATRONICS SPECIALIZATION)

WHAT IS ENGINEERING ANYWAY?



IN OTHER WORDS...

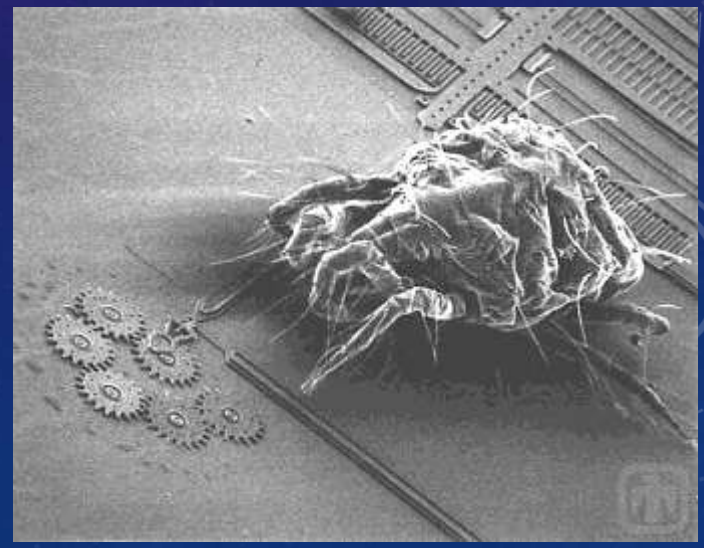
An engineer uses technology to make things that make life better for people

MECHANICAL ENGINEERING

- Deals with machines…
  - Cars, planes, trains, ships, robots, manufacturing, wind turbines, oil wells, assembly lines, bicycles, sensors, engines, etc.…
- You get to use all the fun stuff from Physics 12

ELECTRICAL ENGINEERING

- Deals with circuits and anything with electricity with some software
  - Quantum computers, robots, processors, cell phones, power lines, power generation, solar cells, radar, radio, etc.…

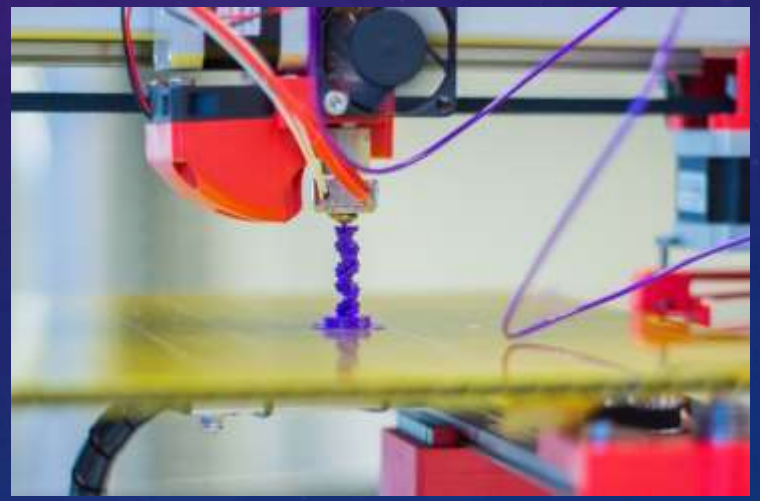


COMPUTER ENGINEERING/COMPUTER SCIENCE

- Deals with mostly software, with a bit of hardware
  - Artificial intelligence, computer graphics, operating systems, programming languages, search engines, Internet security, etc...
- You get to use all the fun stuff from Computer Programming 12

MECHATRONICS ENGINEERING

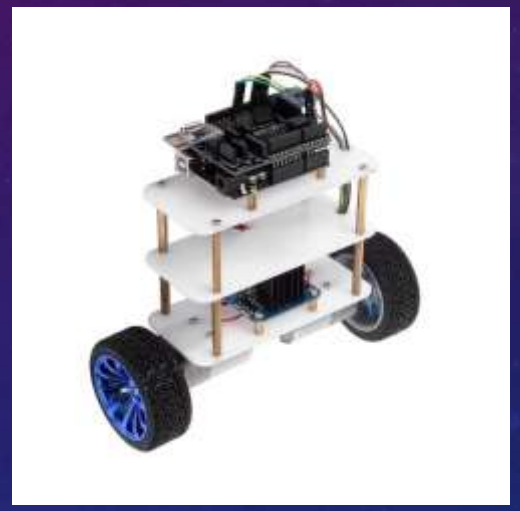
- Take mechanical, electrical, and computer engineering and put it together
  - Robots, 3D printers, electric cars, drones, electric bicycles, landable rockets, machine automation, etc.…

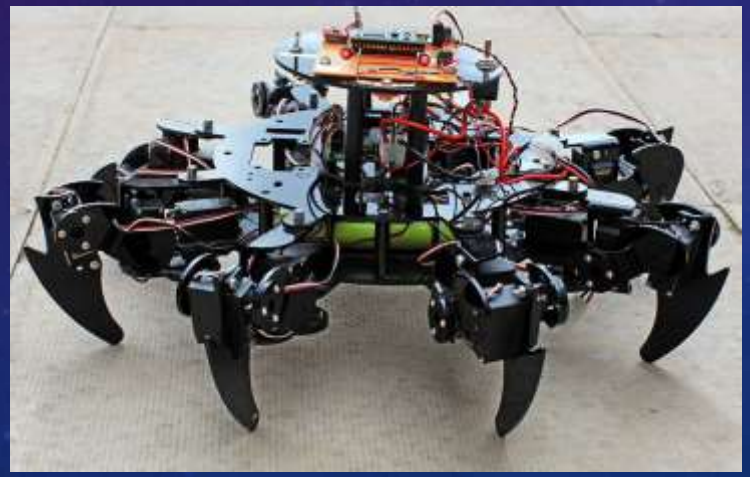


WHY DID I CHOOSE MECHATRONICS?

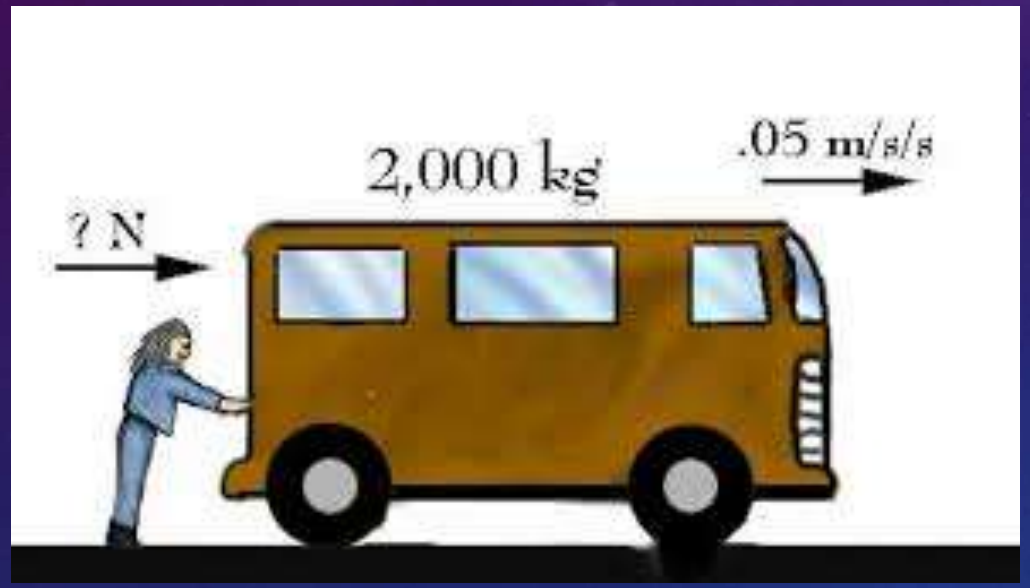
IT SOUNDED COOL… BECAUSE ROBOTS

SAW COOL STUFF THAT PEOPLE MADE





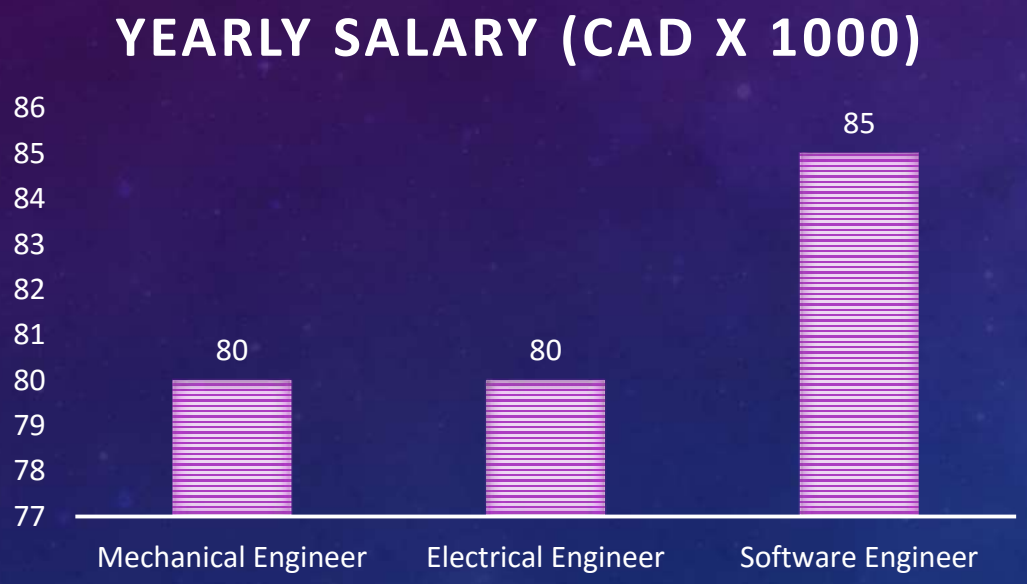
MATH, PHYSICS, AND COMPUTER PROGRAMMING



HOW MUCH DO ENGINEERS MAKE?

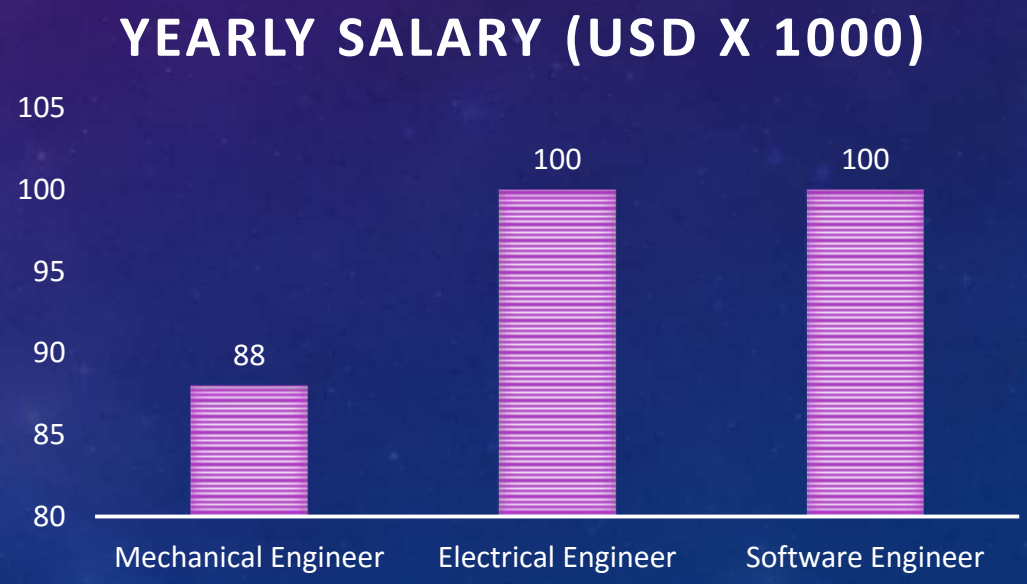
SALARY STATISTICS (APPROXIMATE)

Canada



Source: http://www.jobbank.gc.ca/

USA



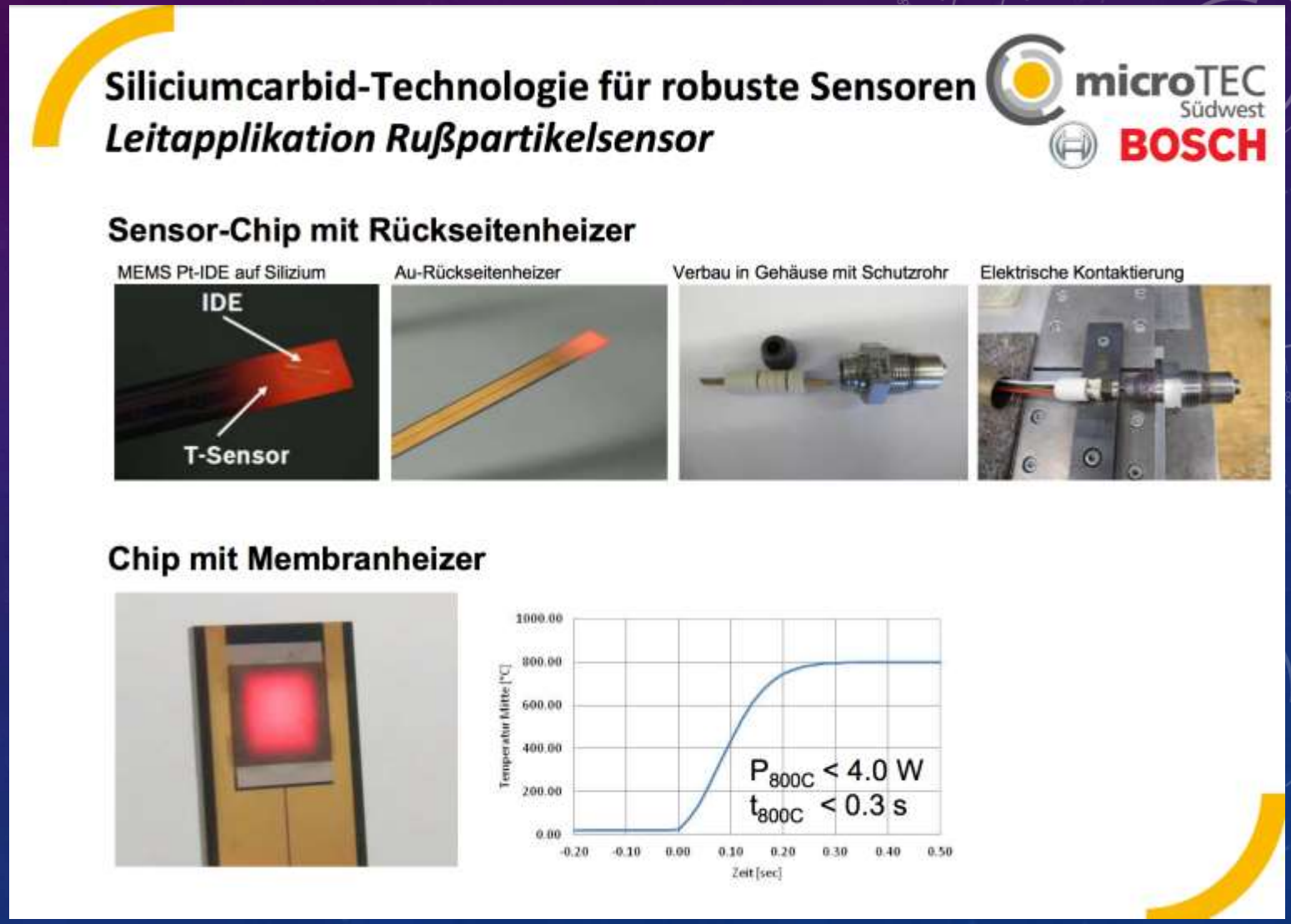
Source: http://www.bls.gov/

WHAT KIND OF JOBS ARE OUT THERE?

YOU HAVE OPTIONS

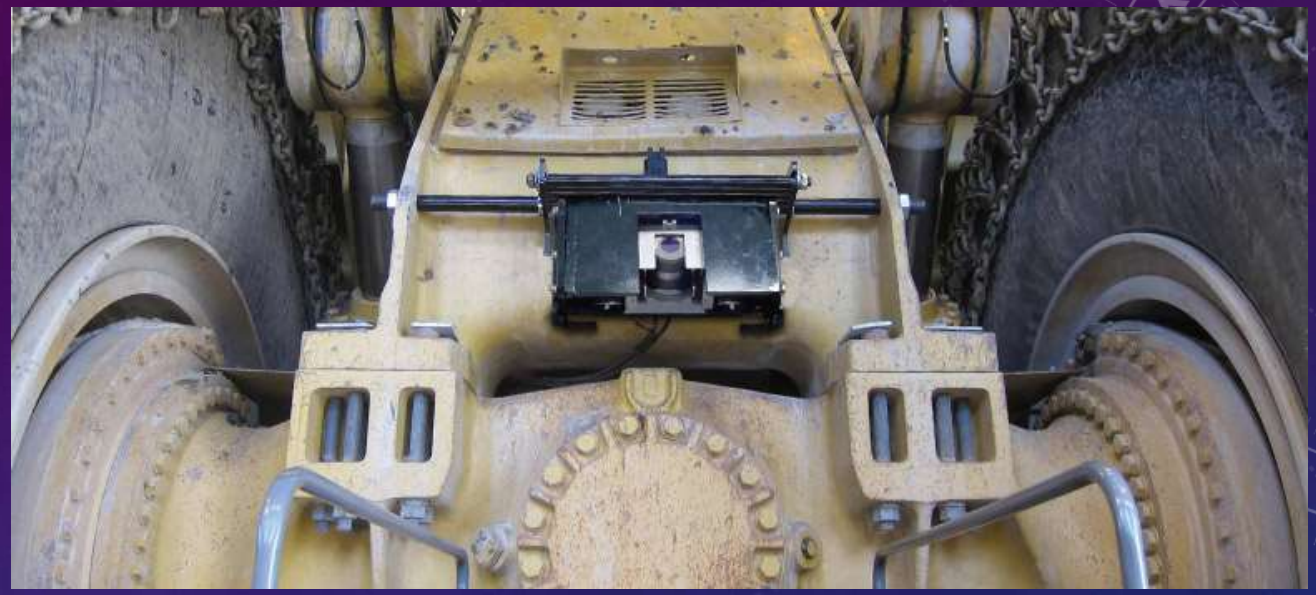
INTERNSHIP
ROBERT BOSCH GMBH
(8 MONTHS)

- World's largest supplier of automobile components
- Worked on particle sensors for diesel engines



1ST JOB AFTER GRAD MOTION METRICS INTL. (2.5 YEARS)

- Supplier of safety products for mining excavators
- Worked as an hardware AND software engineer (camera mounts, algorithm design, etc.)

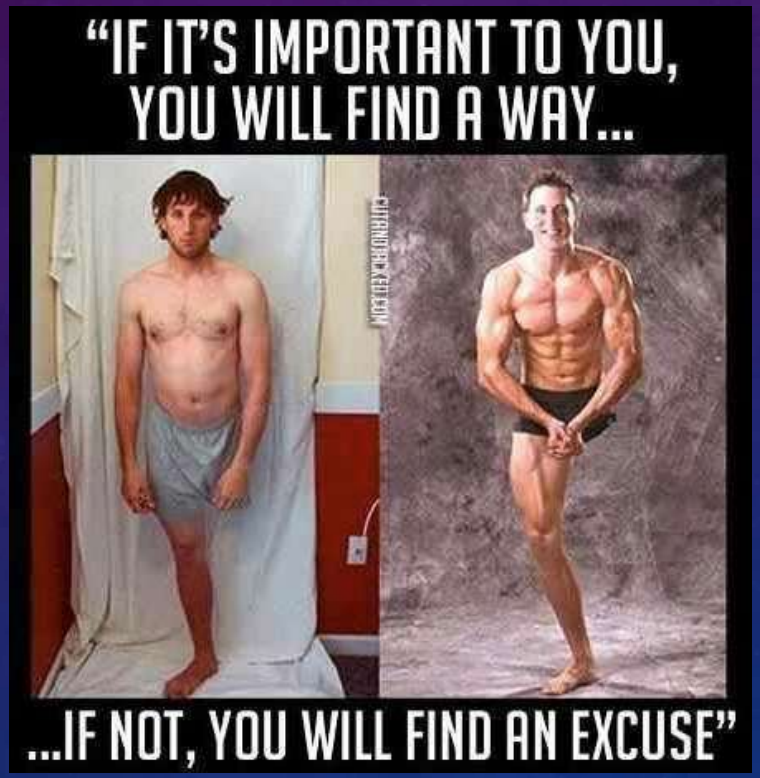


2ND JOB AFTER GRAD
AMAZON.COM INC.
(7 MONTHS AND COUNTING)

- Largest Internet-based retailer in USA
- Working with package pickup locations at universities
- Building software for use by store staff and customers

IS ENGINEERING HARD?

YES, BUT DIFFICULTY SHOULDN’T STOP YOU

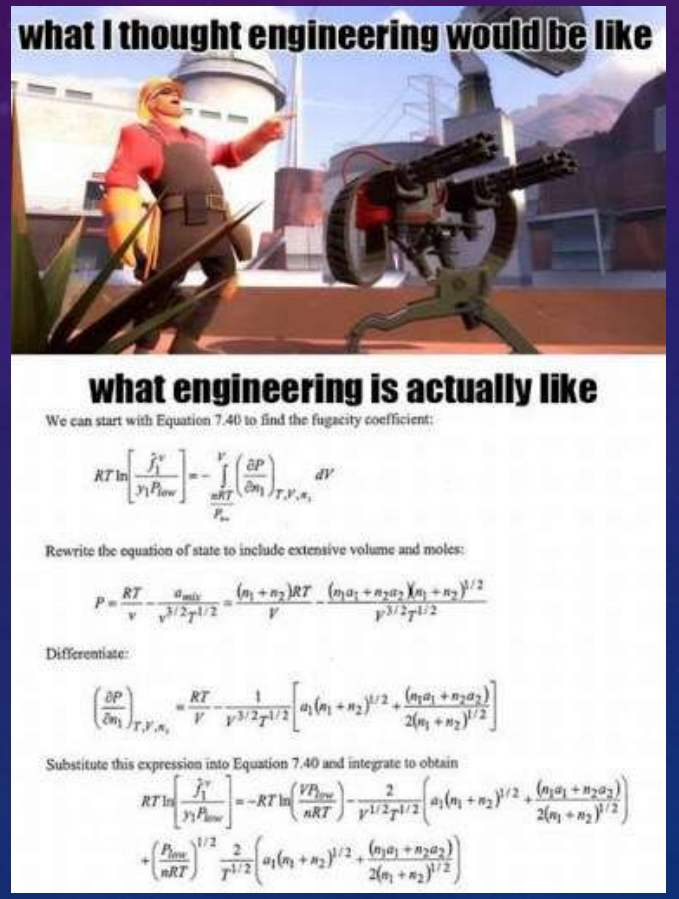


WOULD YOU WANT IT TO BE EASY?

ALSO DEPENDS HOW SMART YOU ARE AND HOW HARD YOU WORK

WHAT IS IT LIKE TO STUDY ENGINEERING?

#truth #gotrekt #ggnore #googlesaveme



DESIGN PROJECTS

EXTRACURRICULAR PROJECTS

INTERNSHIPS

WORKING/STUDYING IN A DIFFERENT COUNTRY (THIS IS THE BEST PART IMO)

ARE THERE GIRLS IN ENGINEERING?

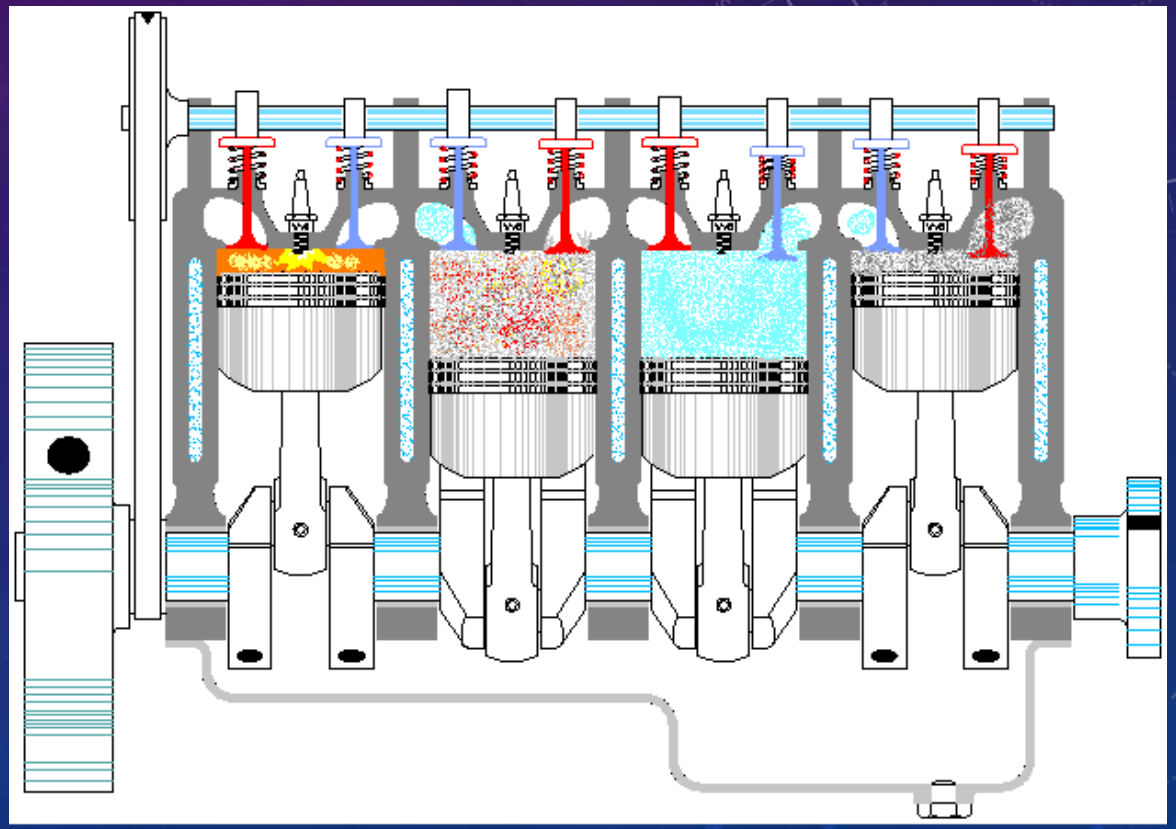
IT'S NOT JUST A MAN'S PROFESSION

19.1% of students enrolled in an engineering undergrad program are female (2014)

Source: https://www.engineerscanada.ca

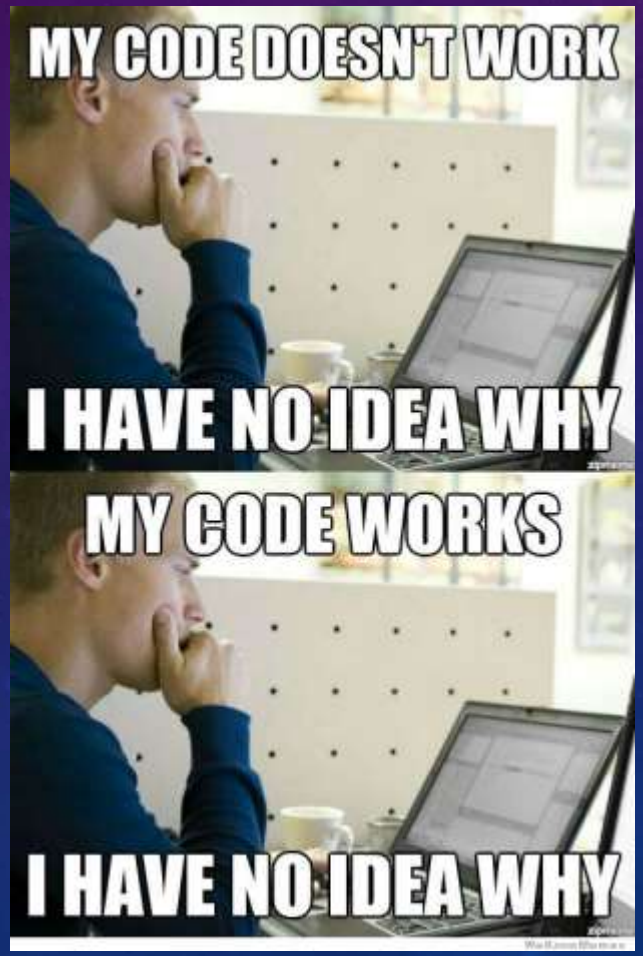
HOW DO I KNOW IF ENGINEERING IS FOR ME?

DO YOU QUESTION HOW THINGS WORK?

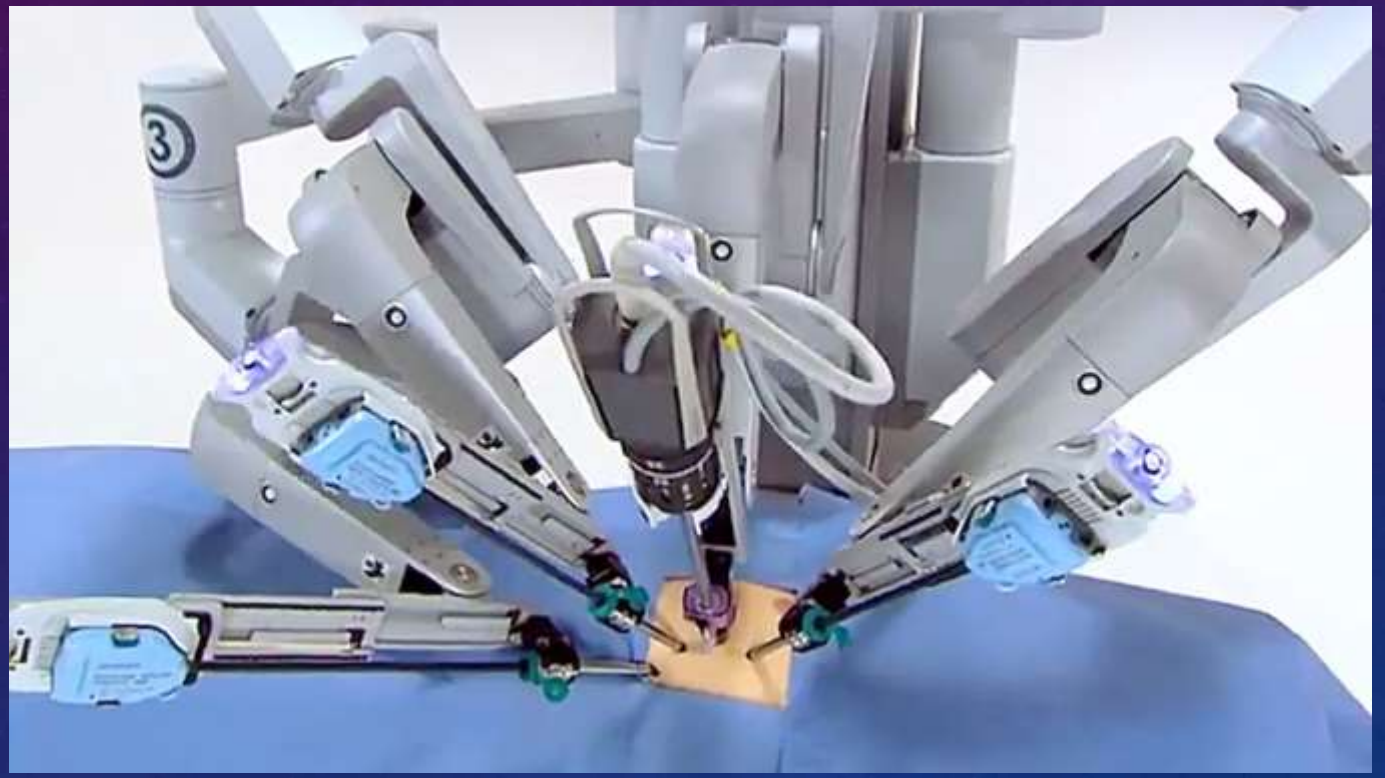


DO YOU LIKE BUILDING THINGS?

DO YOU LIKE TO SOLVE PROBLEMS?



DOES TECHNOLOGY EXCITE YOU?



WHAT TO DO TO FIND OUT MORE ABOUT ENGINEERING

GOOGLE KNOWS EVERYTHING

- Whatever questions you have about engineering, Google knows the answer
- What you learn, salary, different engineering fields, good schools, what other engineers say about their profession etc.

WHAT WOULD I HAVE DONE DIFFERENTLY?

I SHOULD HAVE READ UP ON IT MORE

- I joined engineering because my friends did it, but didn’t know anything more
- Should have Googled stuff about engineering to learn more about it

ANY PRO TIPS?

PRO TIPS

- Do what you are interested in
- Nothing that’s worth it is ever easy
- Don’t do it JUST for the money

ASK YOURSELF…

DID ANY OF THAT SEEM FUN OR INTERESTING TO YOU?

ANY QUESTIONS?

FEEL FREE TO E-MAIL ME WITH QUESTIONS

HENRY.YH.POON@GMAIL.COM