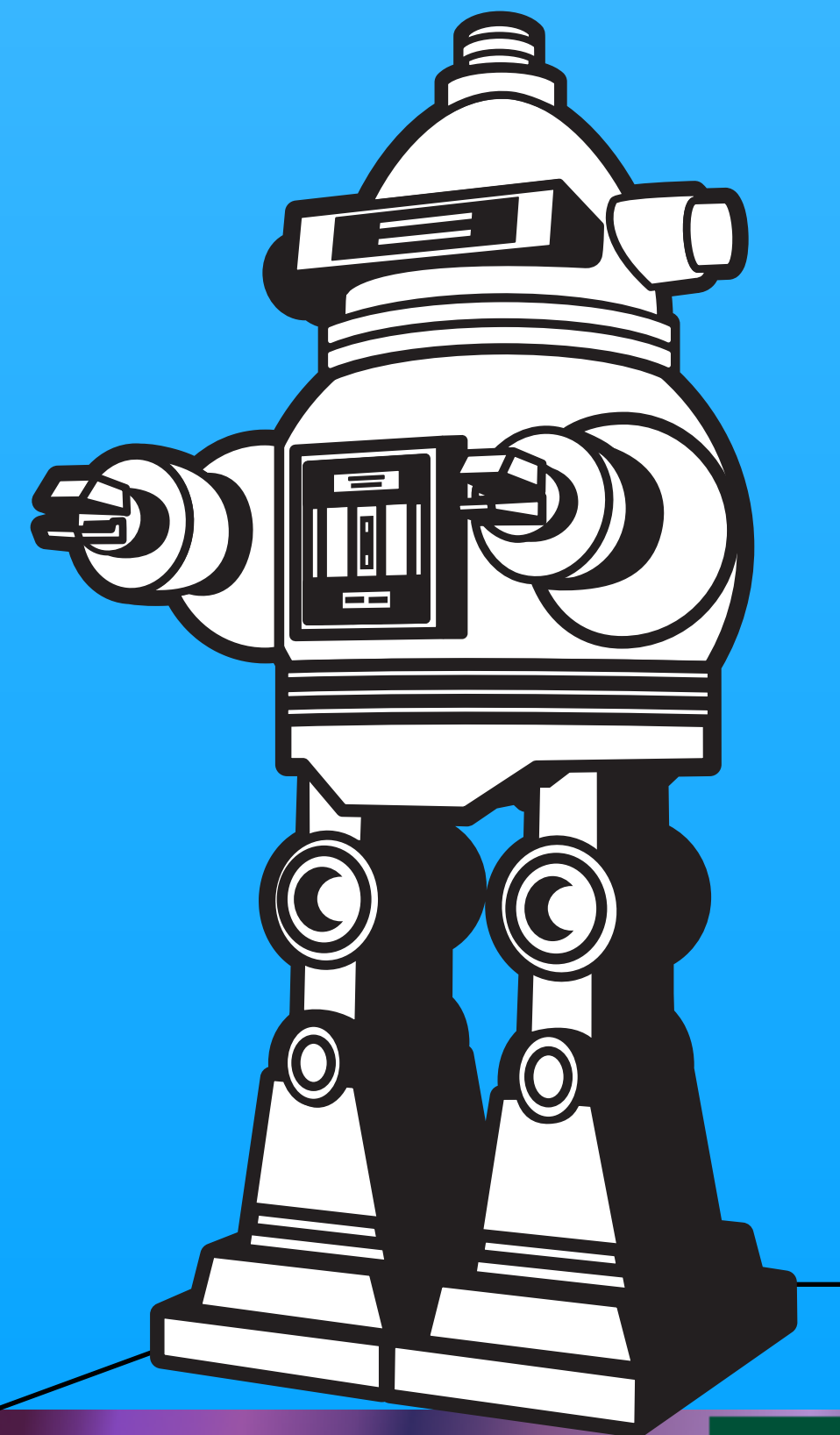


# The ~~Three~~ 4 Laws of Robotics

0. A robot may not harm humanity, or, by inaction, allow humanity to come to harm.
1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.<sup>[1]</sup>

Let's talk Robots



Why Robots?



A silhouette of a mountain range against a warm, orange-hued sky, likely at sunset or sunrise. The mountains are dark and layered, with the highest peak in the center. The overall mood is serene and natural.

# Josh Prow

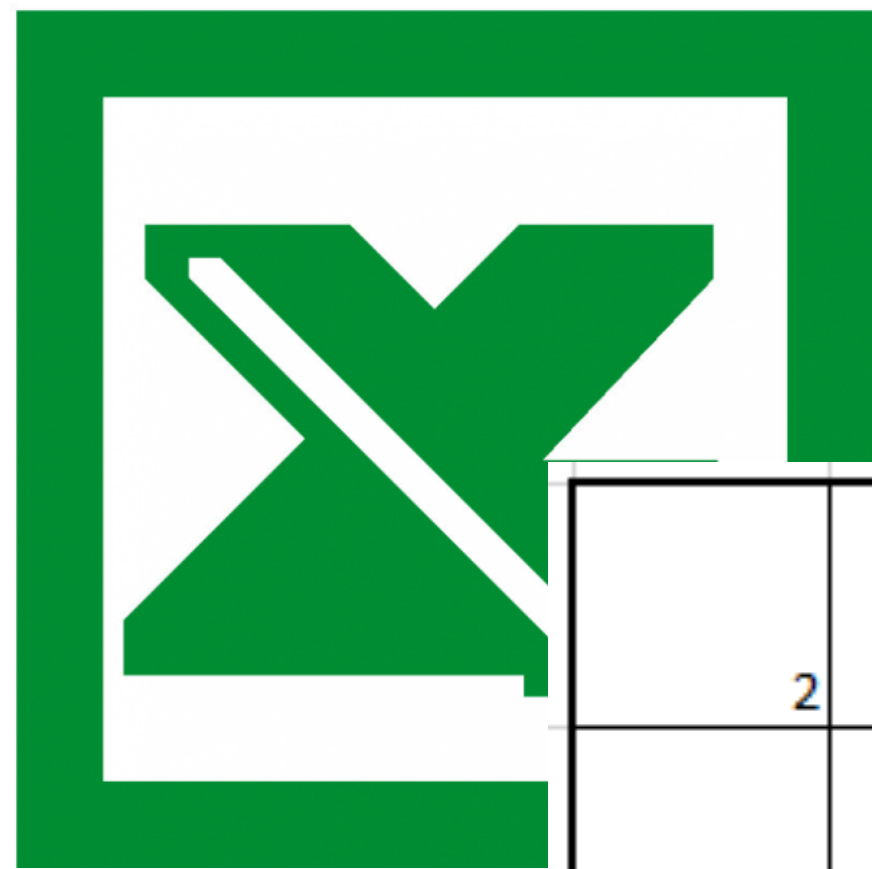
Masters Student at Vic

(Computer Vision for Robotics)



- Master Student at Victoria University  
Work with computer vision and robotics
- PMSA recipient  
Robotics in Japan and Brunei
- Robocup Winner

# Where it started



	2	7	8	17
	9	5	1	15
	4	3	8	15
15	15	17		

Excel

Magic Squares

and an awesome ICT Teacher!!

# Robotics in High School



🌈 Yr 9 Robotics

🌈 Lego RCX kit +  
windows computer  
= Good fun

🌈 Yr 12 & 13 Robocup



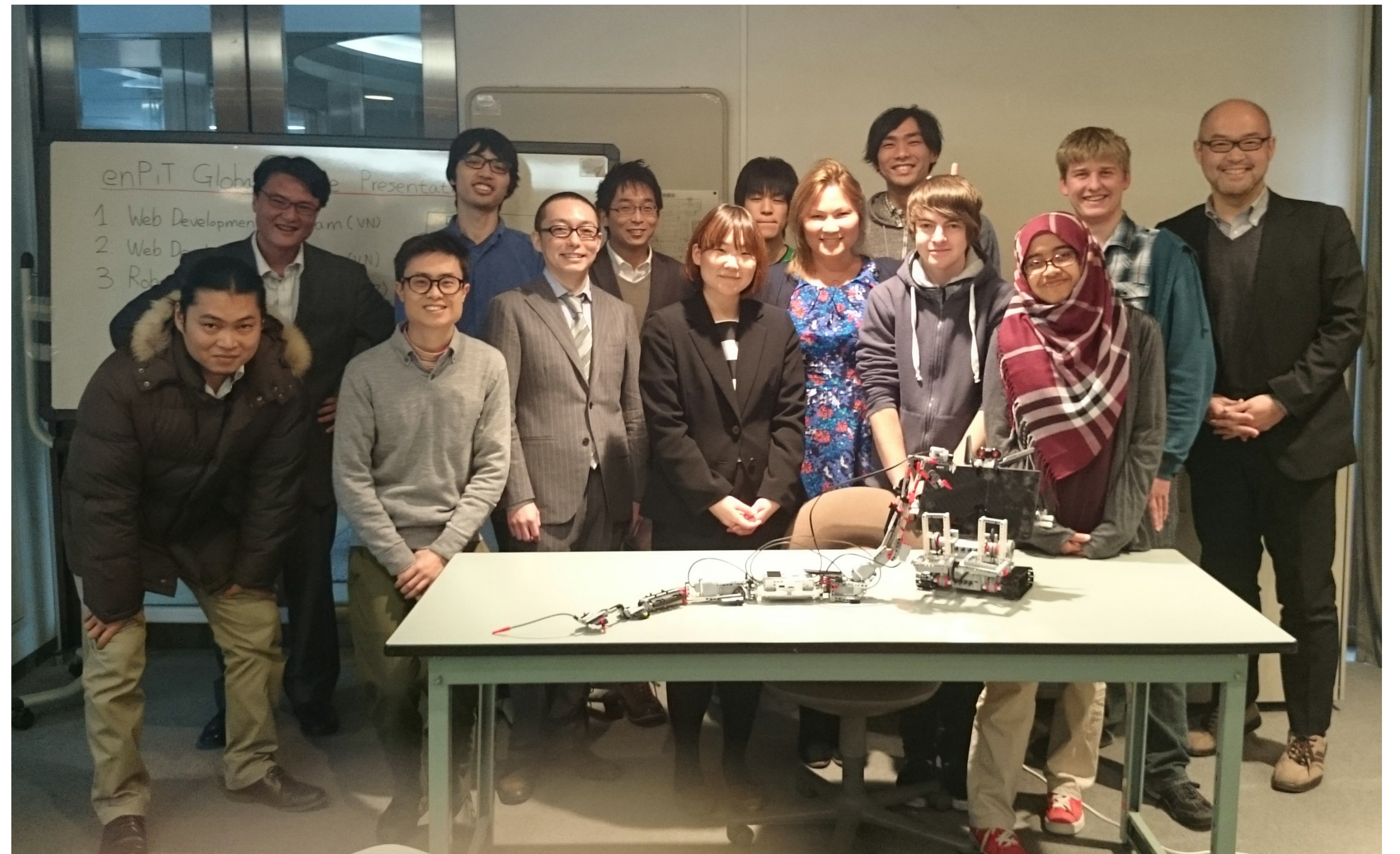
# Robotics at Uni

Started with IoT  
devices using R Pi and  
Arduino

Nominated for  
Robotics Program with  
AIIIT in Japan

Received PSMA

GO TO JAPAN!!!





# PMSA – Prime Minister's Scholarship for Asia

- Great opportunity to learn from the incredible technology in Japan.
- Worked with business project team AIT, to test a robotic service protocol (RSNP)
- Learnt robotic pathing and programming from the Robocup@home team at Kyutech
- Saw the home / service robots already available in Japan
- This all came from my experience with Robocup in high school & a go-getter attitude.



# What I've Gained

- Confidence Online & On the PC
- Programming Skills
  - Great opportunity & very employable
- Problem Solving Skills
- Great Friends
- A Free Trip to Japan 😊
  - And the experiences that came with it
- Skills in an Upcoming Field



**What comprises a robot?**



# Coding vs Engineering vs both

Computational thinking and/or Design and developing digital outcomes



**B<sub>uild</sub> Y O Robot**

**vs**

Pre built kit sets

Time.



Budget.

Learning Curve.



Next gen Robots - Kai's Clan

**Custom built - ESP32**  
**(a type of Arduino)**



**Time to try some out**