

## Patrick L. McGuinness

**INTERNATIONAL SALES / BUSINESS DEVELOPMENT** 

I'm a very energetic and enthusiastic person, who loves to be around people and technology. I'm the person that people come to when they need new ideas or things fixed. I'm passionate about robotics, computers, 3D printing. CNC, electronics, web development, teaching and making.

#### CONTACT

886 0961 108 615



Patrick.L.McGuinness@gmail.com 🖄



Beigang, Taiwan (a)



#### **EDUCATION**

National Taiwan Normal University March 2012 - March 2013

> Alfred State College September 2003 - June 2004

Westchester Community College September 2002 - June 2003

> **Hastings High School** November 2001 - June 2003

Walter Panas High School September 1999 - November 2001

#### **SKILLS**

- Excellent Oral and Written **Communication Skills**
- Negotiation + Customer Service
  - CRM + ERP Management
    - Lead Generation Native English

    - Intermediate Chinese

#### PROFESSIONAL EXPERIENCE

**Business Development** Singform Enterprise

May 2022 to April 2024

Chaiyi, Taiwan

Focused on western market development in the building construction industry. Managed outbound customer acquisition through foreign tradeshows, web conferencing, and email campaigns. Generated inbound leads through SEO, Blog content, and Alibaba marketplace. Performed market research to ensure our products meet local building codes (ISO, ASTM, DIN, FM). Wrote and edited marketing content, video scripts, instructions, presentations, and technical documents. Managed customer data within Hubspot CRM.

**Business Development** Anoesis

August 2020 to May 2022

Taichung, Taiwan

Redesigned company website; increased website traffic by three times using SEO optimizations, web copy, and blog content. Demographics changed from 80/20% Taiwan to US traffic to 50/50%. Generated outbound leads through Linkedin & Email outreach. Created marketing materials: logo, business cards, and CNC service portfolio. Worked directly with clients on hardware design and product improvement using CAD and Rapid 3D printing prototyping. Reduced quoting time from one week to two days by creating material and manufacturing cost software using Google Sheets and app scripts. Developed and managed Ragic ERP/CRM customer databases and workflows.

**Owner** 

January 2018 to Present

STEAM Workz Beigang, Taiwan

STEAM Workz workshops introduce students to emerging STEAM technologies such as AI, Machine Learning, IOT, and computer vision. Through weekend workshops students learn about Science, Technology, Engineering, Art, and Math while learning English as a second language. The students build projects using electronic building blocks (littlebits), 3d printed parts, crafting, and recycled materials. Students initially learn Makecode progressing into python, and Javascript.

#### **SOFTWARE**

#### **Adobe Creative Cloud**









#### CAD + 3D Printing











#### **Operating Systems**

















#### **Microsoft Office & Google Suite**







#### **Web Development**











#### **OTHER SKILLS**

#### **Robotics**

3D Design, hardware, software, and electronics integration. 3rd place finish in RI-SME Lightweight sumo competition 2002. 2nd place as team coach FTC Taiwan 2019.

#### **Troubleshooting**

TCP/IP connectivity, malware removal and prevention, hardware failure diagnosis, and replacement. Software troubleshooting to the registry level.

#### Programming

V-Basic, Python, JavaScript, HTML, CSS, Arduino, Make Code, Scratch.

#### PROFESSIONAL EXPERIENCE -

**FSI Teacher** 

June 2013 to June 2015

Tamsui, New Taipei David's English Center

Certified student-centered ESL teacher and tutor. Excelled at creating interclass dialogue using custom-developed materials. Excellent class re-enrollment and great student feedback. Taught and tutored in school and onsite at local businesses. Developed a custom course teaching presentation techniques and business etiquette. Participants were scored by senior leadership on the quality of their presentation.

Help Desk Technician

Staples EZ Tech

Sept. 2011 to Jan. 2012 Yorktown, New York

Excelled in computer and electronic sales, ranked 1st in-store with computer add-on percentage. Averaged 1-day turn-around time on computer software repairs. Best-in-store trouble-shooting and technical problem-solving. First on-site technician, on-site work ranging from simple computer setups, and malware removal to full B2B network installations. Lead team meetings focused on proper gueue management as well as technical note-taking. Assisted Support.com technicians on store user-end confirming proper work was done. Accountable for the department, handling client relations with a caring positive understanding attitude. -Offered supervisor position, declined due to moving abroad.

#### Help Desk Technician

Geek Squad

October 2008 to June 2010 Cortlandt M., New York

The highest percentage for full-paid upfront service check-in. Received recognition from the company for excellence in customer service. Maximized client satisfaction using a full implementation of provided tool kits. Queue-management of up to 70 computers using a team-developed software suite. Specialized in custom PC builds using proper wiring techniques. Performed all in-store game console upgrades and setup. Motivated team player with positive energy and enthusiasm.

**Assistant Manager** 

GS Inc.

June 2006 to Oct. 2008 Yorktown, New York

Worked across several stores to standardize policies on shrinkage reduction and process improvement implementation. Received company recognition for turning "at-risk" stores into profitable stores. Focused on staff motivation and maintaining a strong "on-time" and "always ask for the sale" mindset within our team. Consistently ranked 3rd in sales for assistant managers within the district.



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Thank you for considering me for the opportunity to apply my skillsets at your company.

This project portfolio and short introduction illustrate my continued learning, creativity, and passion for robotics.

I've been involved in the electro-mechanical assembly of robotic projects throughout the majority of my life. These robots are not the classic manufacturing robots such as Cartesian, Scara, or multi-axis systems commonly produced and sold by companies like Kuka, ABB, Motoman, and Fanuc.

Rather these are non-commercial-builds and in some cases made entirely from scratch with raw materials. Through these projects I have acquired many skill sets that can be applied to my professional career. Programming, 3D printing, and CAD, as primary examples.

In addition, while documenting personal and work side projects, I've acquired skills in social media marketing, photography, videography, and video editing. I've become proficient with WordPress, Elementor, and WIX.

My broad range of skillsets allow me to communicate effectively across product, manufacturing, sales, and marketing departments.

#### Other Experience:

In January 2019, I became a consultant at GC-Robotics School, assisting the owner in growing his business through branding, marketing, and new courses. While consulting I had the opportunity to coach a high school FIRST FTC team to a first-place finish in points 2nd overall in "Robot Ruckus". Feel free to learn more on my blog @ SteamWorkz.com.

In 2015 my wife and I relocated to Beigang Taiwan, to take ownership of a family-run bakery and to start our family.

Patrick L. McGuinness





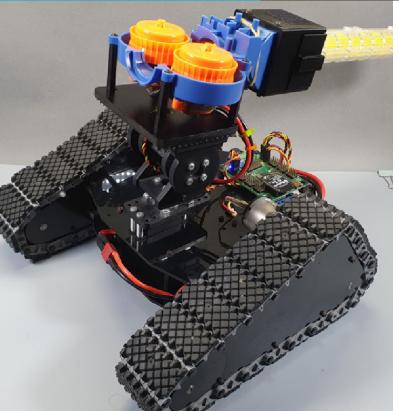
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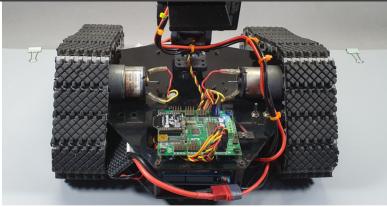
## **Project Portfolio**

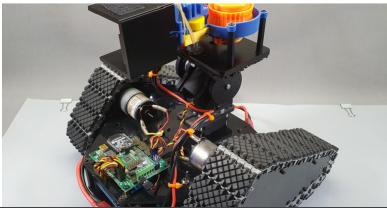
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### ROBOT NERF TANK

Using Bluetooth an Xbox controller and software called Robot Realm this robot can be driven around and shoot Nerf Rival balls. It is a multistage project, eventually, the robot will collect the balls autonomously using computer vision.

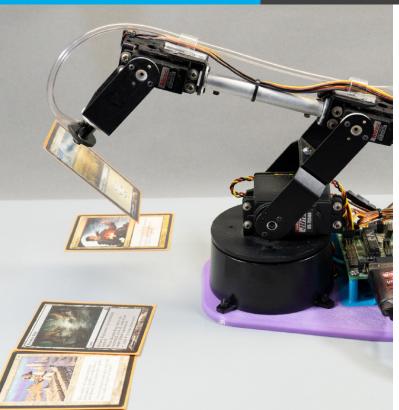


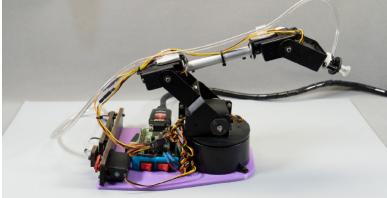




### **ROBOT ARM**

Used to sort Magic the Gathering cards based on card features. A web camera captures the card image and a PC performs image matching. The card is identified by comparing histograms to a card database. The card will then be sorted by value, type, color, or other user-defined variables.

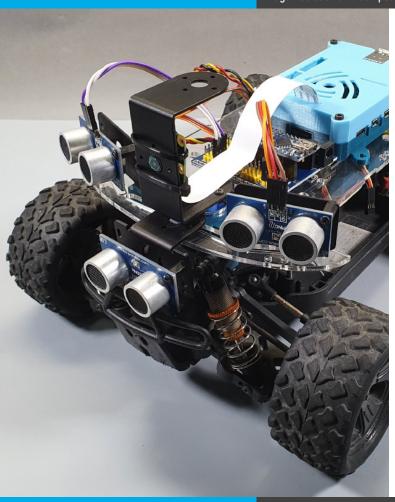


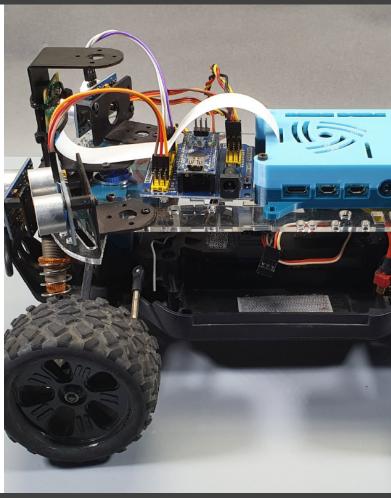




## **ROBOT CAR**

This car will navigate around a race track using computer/machine vision, ultrasonic sensors, and a gyroscope. The onboard Raspberry pi 4 will process video from the camera and sensory information collected by the Arduino. The RPI 4 will then apply machine learning techniques to improve lap time against itself and competitors.

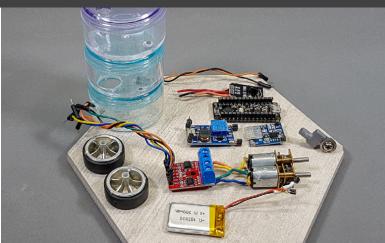


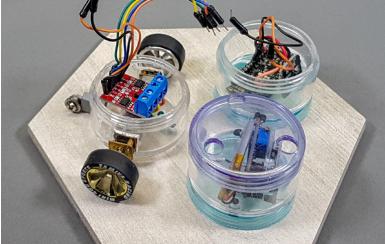


# MODULAR STACKABLE ROBOT

The idea for this robot is that a user can add layers, each layer would be a dedicated system for the robot. I'm designing a new version that will be 3D printed and use Qwiic I2C PCBs.







### **3D PRINTING**

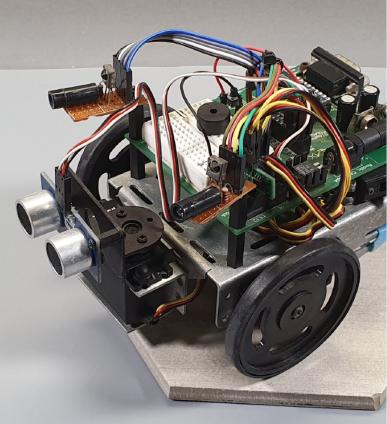
These 3d parts are examples of my CAD drawing abilities. I first learned this skillset in my owntime later transistioning into a CAM in a CNC professional manufacturing environment at Anoesis.

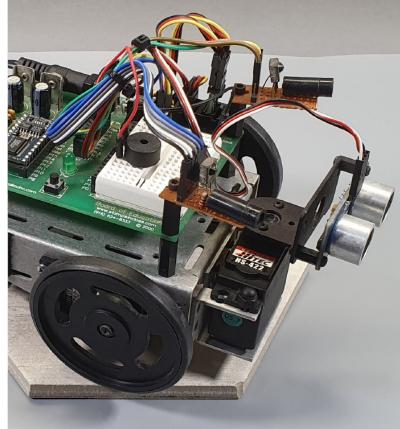




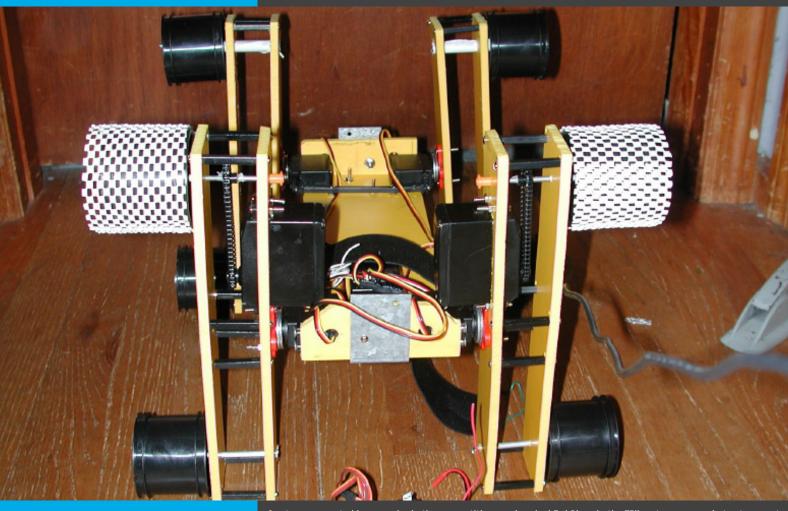
## **BOE ROBOT**

This robot was my first robot kit, it used a Basic Stamp 2 and was programmed in BASIC. It has since been upgraded with faster servos, a Basic Stamp 2 SX, a Servo Pal(PWM controller), new wheels, soldered IR sensors, Ping ultrasonic sensor and rechargeable batteries.





While president of the Hastings High School robotics team I fabricated a prototype for a shape-adaptable robot. This particular design uses high traction treads that rotate around 4 independent joints which allow the robot to assume a low center of gravity. Designed for search & rescue.



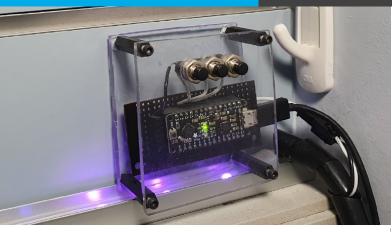
## **SUMO ROBOT**

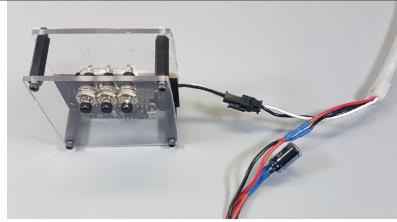
Our team competed in several robotics competitions and ranked 3rd Place in the 75lb autonomous robot category at an international robotics competition RI-SME. This particular robot used a variety of motion-control and sensor techniques to provide an excellent power-to-weight ratio while using state-of-the-art proximity sensors to detect another robot.

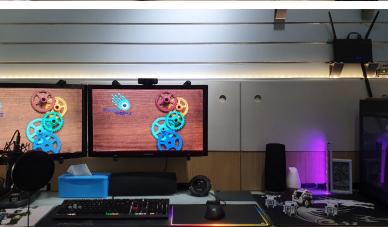


## RGBW DESK LIGHTING

This is an Arduino-based lighting project that uses RGBW LEDs to change the upper desk lighting to match the room's lighting as well as display lighting animations. It is powered and controlled via my NAS.



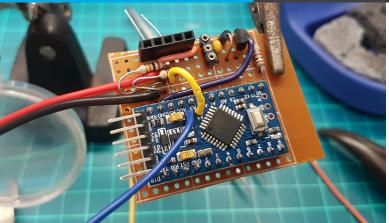




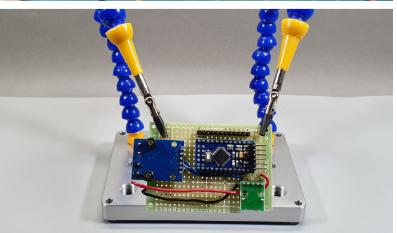


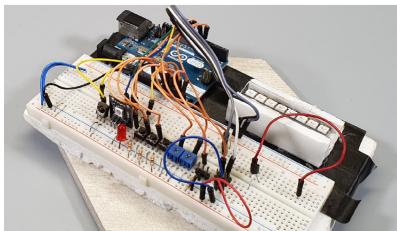
## ARDUINO PROJECTS

I've completed various other Arduino-based projects, including a fish feeder that uses a real-time clock RTC to automatically feed fish.









## **DESKTOP LAMP**

This project uses up-cycled materials. The base is filled with broken mirror material purchased from Ikea. The wood, LEDs, and acrylic are scraps from home DIY projects.







DAILY CARRY POUCH

When traveling in Taiwan I generally carry soap, cologne, hand sanitizer, and a mask. This pouch is a convenient way to carry them.







### **LIGHTING DISPLAY**

This is a night light and display stand for my son's room. The project uses Ikea frames and inexpensive RGB strip lights. Displays can be linked to create a larger display. The project can also be converted into an infinity mirror by applying a mirror film to the glass.

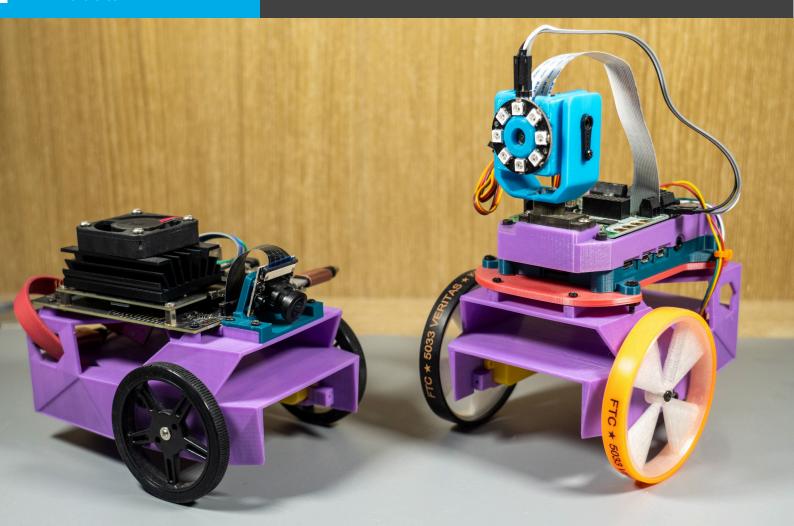






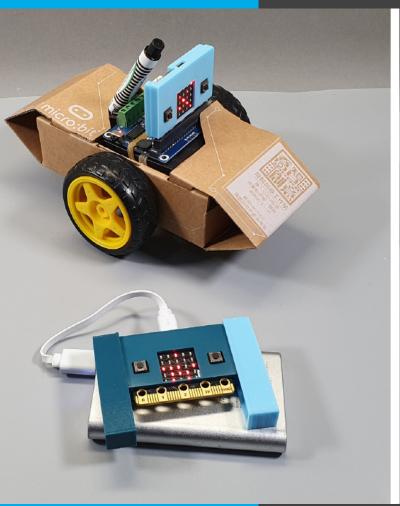
### Jetson & Raspberry PI Al Robots

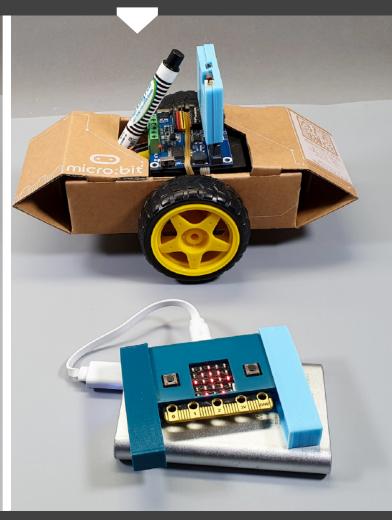
These robots are my current research platforms. Currently they use image & object recognition using computer vision for navigation.



## MICROBIT ROBOT

This was made from cardboard packaging from GC robotics to illustrate how inexpensive and accessible making a Microbit robot is.





# STEAM WORKZ PROJECTS

These projects are a few examples of the projects students complete in the STEAM Workz littlebits workshop.







