

Elliot Tomlinson

tomlie1@mcmaster.ca | (905) 537 - 6744

Summary	Engineering Physics III and Environmental Science Creative and communicative natural leader aspiring to work on challenging open-ended problems in teams of high functioning people aligned without ego. Background in full-stack design projects and physics simulation. Lifelong passion for creativity, invention, and sustainability.
Education	McMaster University <i>2016 – Present, Class of 2022</i> B. Eng, Engineering Physics (Systems Design Focus), B. Sc. Environmental Science.
Projects	Self-Stabilizing Quadcopter <i>2021 – Ongoing</i> Embedded C, CAD, and construction of a drone. Microcontroller PID and Bluetooth control. Laser Safety Goggles <i>2020</i> Novel, low cost, ANSI-Compliant, completely broadband eye protection for lasers to Class 4. Handheld Plant Health Monitor <i>2019 – 2020</i> Design, project management, CAD, assembly, and processing in C for a photonics group. Recycled Material Solar Panel Enhancement <i>2019 – 2020</i> Novel design project through a semiconductor lab. Systems modelling with RSoft/Zemax. Hardware Ultrasonic Rangefinder <i>2019</i> Design, build, and Multisim simulation of sub-cm resolution device with no software. Program-Related Design Projects <i>2017 – Ongoing</i> Design, Java simulation, and launch of multi-stage rocket to 1 km, 3D printed gripping hand with geartrain in Autodesk, Numerical Analysis with MATLAB, FEA with FlexPDE. Repair Projects <i>2017 – Ongoing</i> Restoration and re-sale of miscellaneous computer hardware, design and construction of I.O.T. systems, A/V equipment, and winning battlebot designs all from e-waste salvage. Original Tabletop Game Design and Art <i>2019 – Ongoing</i> Ruby and Lua Scripting, Unity asset design, art for 300+ cards.
Employment	Town of Oakville, Self <i>2010 – Ongoing</i> Training lifeguards, teaching swimming, and providing supervision to private events.
Volunteering	McMaster University <i>2017 – Ongoing</i> Providing social and academic support as a tutor, mentor, and frosh-week leader. Increased turnout from tens to over 200 as Executive/MC/Marketing Lead for a multi-thousand dollar student engagement weekend. Student liaison and event planning as a faculty representative.
Skills	Personal Effectuation, intrinsic motivation, trans-disciplinarity, creativity, collaboration, leadership. Technical Full-stack design, prototyping, and testing. C, Microcontrollers, MATLAB, Ruby, Python, Microsoft Office Suite, GNU/Linux, L ^A T _E X, Graphic Design, Autodesk 3D Modelling.

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source code available online at [elliot.tk](#)