

# Martin Gendell

US Citizen | Hoboken, NJ | +1 718 795 6788 | martin\_gendell@avenues-ny.org

## EDUCATION

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Avenues New York | High School Junior | New York, NY

Sep 2022 – Present

HOLA | Dual Language Charter School | Hoboken, NJ

Sep

## SKILLS

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### Technical Skills

- Advanced in operating, post-processing, and repair of 3D printing technologies: FDM 3D printers (filament), SLA 3D printers (resin), and Nylon SLS 3D printers (plastic powder).
- Advanced in various automated tools: CNC machining, laser cutters, WAZER (waterjet), and 3D printers.
- Advanced in various manually operated tools: soldering iron, riveting press, sheet metal tools, table saw, band saw, drill press, angle grinder, chop saw, industrial metal cutter, thread taper, and more.
- Currently learning: lathe operation, manual milling, welding (Arc and MIG).

### Software Skills

- Advanced in Fusion, Adobe Illustrator, WAZER Slicer, Bambu Slicer, Cura Slicer, Lychee Slicer, Google Sheets, and Microsoft Excel; Proficient in Onshape, AutoCad, and Python.
- Currently learning Solidworks and nTop.

## NOTABLE PROJECTS

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### Development of a Metal 3D-Printable Farnsworth Fusor

Oct 2024 - Present

- Secured a \$1,000 investment from a VC fund (additional funding applications pending).
- Currently developing and testing low-cost, 3D-printable, high-vacuum chambers capable of sustaining the conditions necessary for demonstrating nuclear fusion.

### Introduced and implemented 3D printing technologies at Folditure and Folditure Space.

May 2024 - Present

- Supervised additive manufacturing for rapid prototyping of NASA-funded redeployable space solar array mechanisms.
- Set up 3D printers and 3D printing software; trained staff on technology implementation and application.

### Wrote a Provisional Patent Application for a Self-Developed Scissor Lift Mechanism

Nov 2023 - Mar 2024

- Developed a novel asymmetric scissor lift for the FIRST Centerstage season.
- Independently wrote a provisional patent application for the invention.

## ACTIVITIES

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### IDEA (Innovation, Design, Engineering, Architecture) Club

New York, NY

Co-Founder and head of Engineering

Sep 2024 – Present

- Teaching students how to safely use shop tools and resources, including 3D printers, laser cutters, drill presses, bandsaw, chop saw, and more.
- Assisting club members in developing personal projects, such as a motorized camera mount, rock tumbler, etc.

### FIRST Avenues Robotics

New York, NY

Head of Fabrication and Innovation

Sep 2022 – Present

- Instrumental in designing and building several competition robots and developing innovative solutions to game challenges.
- Made significant contributions to the team winning Inspire 1st and qualifying for the FTC World Championship.
- Mentored new team members to: use shop tools, interpret 3d models, assemble components, test and iterate the product.

### Golden Record 2.0

New York, NY

Founding Member

Sep 2022 – Present

- Currently working on designing and manufacturing a space-capable case for a 5D optical data storage crystal. The case is meant to allow the crystal to survive a rocket launch and last in space for millions of years (not an exaggeration).
- Successfully reached out to and am currently collaborating with the Microsoft Project Silica team.

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**Languages:** Fluent in English, Spanish, and Bulgarian; Proficient in Croatian; Currently learning Mandarin

**Other Interests:** Travel, Hiking, Cycling, Fencing, Swimming, Acting

