

Jermaine Johnson

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EDUCATION

New Jersey Institute of Technology | Newark, NJ

Graduation: May 2025 **Major:** *Bachelor of Science, Mechanical Engineering* **GPA:** 3.11

SKILLS/INTERESTS

- Used CAD softwares {Solidworks, etc.} and simulation softwares{ANSYS} for over 15 design projects including basic parts and complex assemblies.
- 3+ years of experience with CNC Machining and WoodShop 3D printing.
- Interests: Hand-on Projects, Machine Operations, Brainstorming and Design.

CERTIFICATIONS

- CSWA SolidWorks Certificate *Issued in December 2023*

PROJECT EXPERIENCE

Grip Helper

- Designed and prototyped an assistive device using SolidWorks, completing 2 iterations within 30 days.
- Improved grip strength by 30% on average for impaired individuals during a user trial of 3 participants.

Belt Drive Assembly

- Created and assembled a seven-component Belt Drive system using SolidWorks and efficient CAF techniques that reduced modeling time by 25%.
- Utilized cross-section mirroring, axis revolutions, extrusions, and mating constraints features to cut modeling time by 6+ hours.
- Produced 7 detailed technical drawings within ± 0.01 in. to ensure design manufacturability.

Portable Coffee Maker

- Conducted a preliminary poll on 15 respondents that directed focus onto a main problem to address.
- Used Finite Element Analysis (FEA) and Computational Fluid Dynamics (CFD) simulations to observe behavior and identify 3 critical structural weaknesses.
- Worked in a group of 5 to deliver a prototype ahead of a 4 month timeline and perform a 10 minute presentation with simulation results, physical prototype, and technical drawings.