

# Isaac Newcomb

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## EDUCATION

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- Cornell University**, College of Engineering, Ithaca, NY May 2024  
Master of Engineering, Mechanical Engineering | Design Focus | Music Minor
- Adirondack School of Recording Arts**, Plattsburgh, NY May 2025

## EXPERIENCE

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- Re-recording Mixer** — Pluriversal Futures Design Lab, Cornell University, Ithaca, NY August 2024 – Present
- Mixed final soundtracks for educational YouTube videos, including all SFX, dialogue, and music
  - Recorded and edited foley; also added sounds from online libraries and my own library of field recordings
  - Composed, produced and mixed original music as bed tracks
- Artist, Producer, Engineer** — Cornell Music Production Club, Ithaca, NY November – May 2024
- Produced, recorded and mixed “Angel Numbers” and “I Don’t Wanna Change Your Mind” on CMP’s second album, Time Waits for No One
- Founding Engineer; Kinetic Co-lead** — Combat Robotics at Cornell, Ithaca, NY October 2019 – May 2024
- Designed and manufactured four 12-lb robots over the years, reaching semifinals at National Havoc Robot League
  - Built camaraderie and dedication in the Kinetic subteam through communication, accountability, and good vibes
  - Solidified CRC’s organizational structure: helped define subteams, projects, timelines, and best practices
  - Developed clean, flexible templates for documentation, BOMs, budgeting, team rosters, part drawings, and more
  - Wove clear requirements into our design practices, striving for creativity, manufacturability, and serviceability
- Sound Designer** — Cornell Performing and Media Arts, Ithaca, NY September – November 2023
- Crafted evolving soundscapes for *Peerless* by Jiehae Park; ran cues with the clip launcher in Bitwig Studio
- Keyboardist, Producer, Engineer** — The Fuse, Ithaca, NY September 2021 – May 2023
- Co-wrote, recorded, and mixed our single 3AM in the Atrium
  - Developed stage plots and input lists for our live shows, serving as the band’s technical contact
  - Won 2nd place at Cornell’s Big Red Battle of the Bands, culminating in performances at the Slope Day festival

## SELECTED PROJECTS

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- Ice Keys** — Melodica-like wind instrument, [isaacdnew.com/projects/ice-keys](https://isaacdnew.com/projects/ice-keys) September 2018 – Present
- Created 3 functional prototypes of a portable, acoustic, flute-sounding keyboard instrument (a 4th is on the way)
  - Pushed the limits of thermoplastic FFF 3D printing (almost all parts are 3D printed)
  - Wrote scripts with Inventor’s iLogic to parametrically generate complex, note-varying geometry
- Gigging Platform** — Keyboard-shaped box for flexible, laptop-based live performance November– May 2024
- Designed to rest on a keyboard stand and fit two 1U rack modules side-by-side
  - Currently houses Focusrite 18i20, power strip, and USB cables routed for quick setup and teardown
  - A laptop and two Roli Seaboard Blocks mount on top with velcro and magnets for worry-free synth mayhem
- SnapSlide** — Self-tuning slide whistle, [isaacdnew.com/projects/snapslide](https://isaacdnew.com/projects/snapslide) August – November 2021
- Used FFT to get an Arduino to identify pitch, automatically adjust the slide, and keep notes in key
  - Created as part of Mechatronics class: budget for parts beyond the provided kit was \$20
- Graveyard Shift** — 2D stealth / puzzle game, [graveyardshift.page](https://graveyardshift.page) March – May 2021
- Composed and produced a complete soundtrack and sound effects using sampling, layering and synthesis
  - Won audience favorite and “most polished” in Game Design Initiative at Cornell’s end-of-semester showcase

## SKILLS

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**Studio:** Signal flow, drum setup and teardown, cable wrapping, mic patterns and placement, studio etiquette

**Software:** DAWs (Logic, Pro Tools, Ableton, Bitwig Studio), CAD (Fusion, Inventor, Siemens NX, FreeCAD); Engineering Simulation (ANSYS, COMSOL); Coding (MATLAB, Python, Arduino C++, Javascript, HTML/CSS).

**Fabrication:** Manual lathes and mills; 3-axis CNC; 3D printers; MIG welding; hand/power tools; electronics (soldering, crimping, multimeters, oscilloscopes, etc.).