Introducing The Smart Servo

The All-in-One Solution for STEM Education and Assistive Technology

The Smart Servo integrates multiple components into a single, robust unit, streamlining the learning process and accelerating project development.

Key Features:

✓ Integrated Design: Microcontroller, servo motor, multi-color LED, and I/O ports in one compact device
✓ Durable Construction: PETG and carbon fiber build for classroom resilience
✓ Versatile Power Options: Rechargeable battery or USB powered
✓ Open-Source Programming: Uses Python, no proprietary software required
✓ Pre-loaded with 11 Example Codes: Ready for immediate classroom use
✓ Assistive Technology Focus: Designed for AT applications and general STEM education
✓ Rapid Prototyping: From concept to functional prototype in record time
✓ Cross-Disciplinary Tool: Ideal for CS, engineering, and AT projects

Benefits for Your District:

- Simplifies complex setups, saving valuable class time.
- Bridges the gap between basic electronics and advanced engineering tools.
- Promotes interdisciplinary learning and real-world problem-solving.
- Enhances assistive technology programs with tailored solutions.
- Accelerates the prototyping process in physical computing projects.

Perfect for:

- STEM Classes
- Computer Science Courses
- Engineering Programs
- Assistive Technology Initiatives
- Makerspaces and Innovation Labs

Why Choose Smart Servo?

"The Smart Servo offers the functionality of multiple devices in one user-friendly package. It's more integrated than Arduino, more flexible than educational robotics kits, and specifically designed with assistive technology in mind. It's the ideal tool to prepare our students for real-world challenges."

Ready to Transform Your STEM Education?

Contact us today to learn how Smart Servo can revolutionize your district's approach to STEM and assistive technology education.

Revolutionize Your STEM and AT Programs with One Compact Device
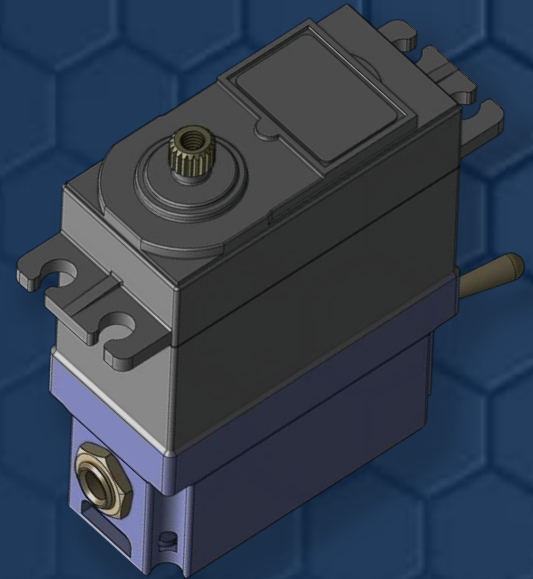
TECHNICAL DETAILS

- **Microcontroller**
  - Adafruit Trinket M0
  - Circuit Python 8.0 Preinstalled
  - Onboard Programmable Neopixel. (16 million colors)
- **Servo**
  - MG956 Full Metal Gear
  - Torques up to 13 Kg-cm.
  - Four 5mm Mounting holes. (Self-tapping mounting screws included)
  - Circular, 2-point, 4-point, and 6-point servo horns included.
- **Casing**
  - Made with rugged PETG-CF plastic.
  - Clear PETG diffuses Neopixel lights.
- **Inputs**
  - Micro-USB for Programming and Power
  - 3.5mm AUX jack (Allows control by any Assistive Technology switch or button.)
 - Easy access Safety Toggle switch.

Empowering the Next Generation of Makers

Our Inspiration

The Smart Servo was born from our experience in developing impactful STEM programs. We discovered two key elements that led to nationally recognized projects and improved public perception of STEM education:

1. Implementing Human-Centered Design processes, from empathetic client interviews to critical evaluations.
2. Integrating digital design, precision manufacturing, and physical computing skills.

When combined, these elements unleashed student creativity, fostered intrinsic motivation, and resulted in impressive, impactful projects.
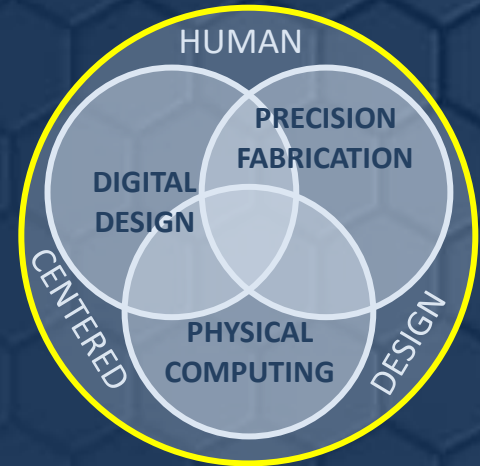
Our Approach

By embracing constructivism, we recognize students' inherent desire to contribute meaningfully to their communities. Instead of focusing solely on skill development, we encourage students to tackle authentic problems, learning by doing, reflecting on setbacks, and allowing them to exercise creativity while acquiring necessary skills along the way.

Our Solution

The Smart Servo embodies this philosophy. It's a unique physical computing platform that enables young makers to immediately become creative problem solvers and community contributors. Additionally, it serves as a steppingstone to more advanced platforms like Arduino and Raspberry Pi as projects grow in complexity.

By providing this innovative tool, we aim to inspire a new generation of makers who are equipped to address real-world challenges from day one.