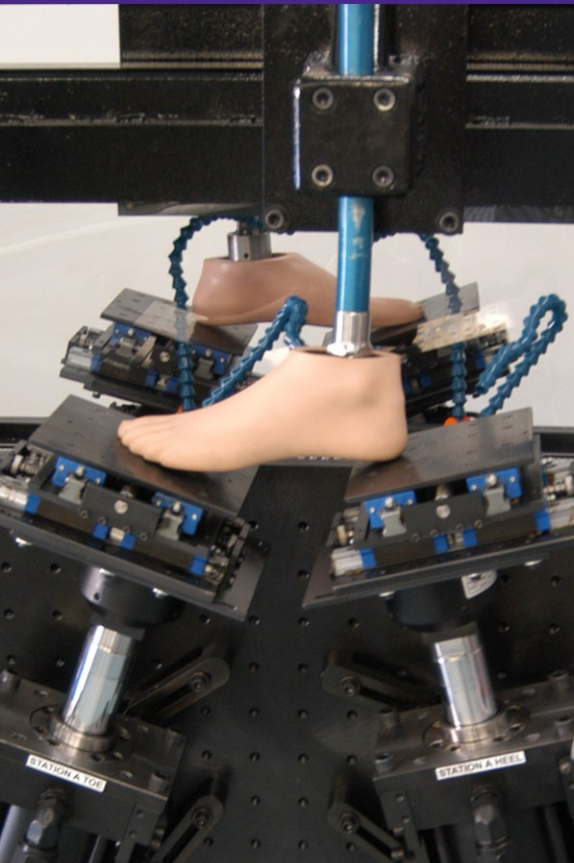


## Prosthetics Tester Gets a Leg Up on its Competition

Orion Test Systems & Engineering, Inc.



### At a Glance

- **Project:** Prosthetics Tester Uses Pneumatics
- **Company:** Orion Test Systems & Engineering, Inc.
- **Location:** Lake Orion, Michigan
- **Challenges:** To test prosthetics under realistic conditions in order to meet ISO standards.
- **Solution:** Delta's RMC75 motion controllers enable Orion's prosthetic tester to control force, position and make test documentation easier.
- **Benefits:** Using two RMC75 motion controllers improves Orion's competitive edge by expanding testing capability to two artificial limbs at the same time.

### Summary:

The Delta RMC75 motion controller provides the flexibility, technical support and tuning tools that make it easier to tune Orion's testing systems for optimal performance. This Servo Pneumatics application uses a programmable motion controller allowing operators to apply complex test protocols with more precision, vary test parameters and log test data much more easily.

### Challenge:

In order to meet requirements imposed by the International Standards Organization (ISO), prosthetics must flex under realistic conditions through at least two million cycles. Prosthetic testing must also measure the deflection of the joint to ensure that less than maximum force has been applied.

### Solution:

The RMC75 motion controller manufactured by Delta Computer Systems of Vancouver, Washington was selected to control both force and position, and has the ability to switch smoothly from controlling position to controlling force in fluid power in applications that use either hydraulics or pneumatics.

### Benefits:

Delta's RMC75 software enables graphing of motion profiles which serve as proof that the test meets the ISO standards. Additionally, the tester can measure the onset of fatigue before a catastrophic failure occurs. With simple mechanical changes, the system can be used to test other prosthetic body parts as well as products in other industries.

*"With the power of Delta controllers and their technical support, we have a flexible test platform that can be repurposed for use in a wide variety of industries."*

-Rob Pilat, President of Orion Test Systems & Engineering, Inc.