# **New Scale News**



Website

About Us

News

Careers

**Contact Us** 





#### **Greetings!**

The entrepreneur's mantra "fail fast, fail often" is aptly applied to new product development. You want to know sooner rather than later whether your idea is feasible. Avoid wasting time and money on unrealistic solutions - just quickly rule them out and move on to better options.

This applies to every sub-system in your product, including the micro motion systems. Sometimes this is called **getting faster to "no."** At New Scale we call it **getting faster to "know."** 

### Faster to "know" about micro mechatronics

As motion systems get smaller, design rules change. You have to change the way you evaluate force, friction, stiffness, stability, precision, power and efficiency.

But it's hard to solve micro motion problems without specific experience with millimeter-scale systems. Most design teams struggle when integrating tiny motors, drivers, mechanical guides, support structures and mechanical interfaces.

Sometimes a standard micro mechatronic module is an excellent solution. New Scale's drop-in M3 motion modules have built-in controllers and offer both linear and rotary motion. Developer's kits let you quickly assess the suitability of a standard module.



Standard motion module with built-in controller

# Faster to "know" about custom concepts

But sometimes a design calls for a custom solution.

In these cases you have probably conceived a motion scheme that's specific to your new system and the proprietary technologies that you're bringing to market. Now you need to find out if your idea is feasible, before continuing to invest effort and money into it.

New Scale offers a **fast feasibility study** just for this purpose. It's 80 hours of dedicated engineering time from our micro mechatronics



A fast feasibility study gives you 80 hours of dedicated engineering

experts, in a total program time of 3-4 weeks.

We'll collaborate with you to define the system requirements. Then our micro engineering team will create and evaluate design concepts to meet the requirements, and deliver an objective report that includes:

time from New Scale micro mechatronics experts. You get to "know" in just 3-4 weeks.

- Solid models and schematics.
- Engineering analysis
- Our objective assessment of the feasibility of the concept
- Our recommendations for next steps, including costs

**If the concept is feasible,** we'll include a proposed motion module development plan for fastest commercialization.

**If it's not feasible,** or if there are better options for you elsewhere, we'll tell you so and include alternative specifications, designs, technologies and suppliers.

You quickly get the hard data you need to drive decisions.

## Example: Faster to a decision, faster to market

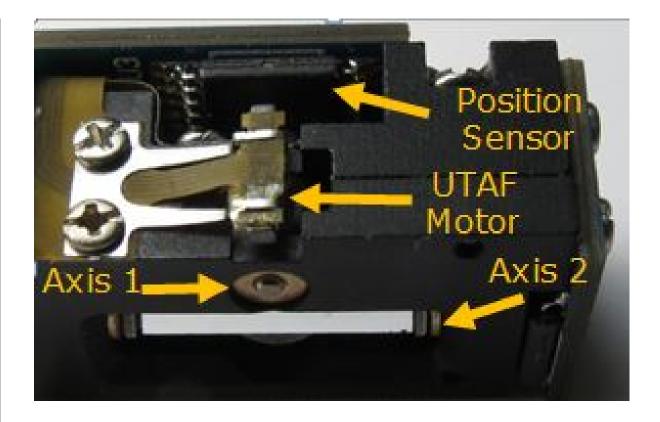
Here's one example.

A major computer manufacturer asked us to create a twoaxis laser beam steering system. It had to fit inside the 6 mm thickness of a laptop display.

The laser projects from the back surface of the display cover, with an angular range of +/- 40 degrees and a resolution of 0.05 degrees.



- In the feasibility study we proposed a miniaturized "galvo-type" design with two orthogonal mirrors driven by UTAF piezo motors. The absolute mirror angles are measured using magnetic Hall sensors.
- In 3 months we delivered prototype beam steering modules using many off-the-shelf components.
- In 6 months we created a production-ready design that meets the higher-volume cost objectives of a consumer electronics product.

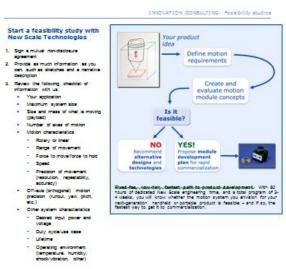


# Learn more... or get started!

Do you have a micro motion idea you need to prove?

A fixed-fee, \$12,500 feasibility study is an affordable way to quickly test your idea and keep your product development on the right track.

<u>Download the Feasibility Study checklist</u> (PDF) to find out how to get started.



Feasibility Study Checklist (PDF).

#### **About Us**

New Scale Technologies develops small, precise and smart motion systems for critical adjustments of optics, and many other micro positioning applications. Our simple and elegant solutions deliver best-in-class performance in handheld, portable and mobile

instruments for medical, scientific and industrial applications. Our customers benefit from complete, "all-in-one" motion solutions that are tailored to their unique requirements and easily integrated into their next-generation instruments. **Contact us.** 



Send email to: <u>NSTsales@newscaletech.com</u> Visit our website: <u>www.newscaletech.com</u>

Call us: (585) 924-4450



Copyright © 2015. All Rights Reserved.

