

CASE STUDY

SWITCH ACTUATION POINT VERIFICATION

SYSTEM DESIGN

- Functional Test Systems
- Manufacturing Automation
- Instrumentation
- Motion Control Systems
- Jigs & Fixtures
- Operator Stations
- Assembly Lines
- Tooling

Engineering Staff:

Mechanical

Electrical

Software

Manufacturing

RF

OUR CLIENTS

- General Electric
- US Dept of Justice
- The Toro Company
- British Petroleum
- Harvard University

Electromechanica, Inc.

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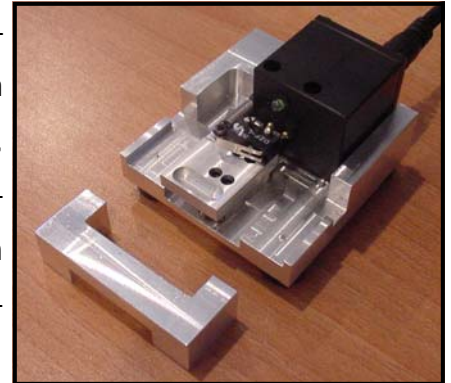
East Freetown, MA 02717

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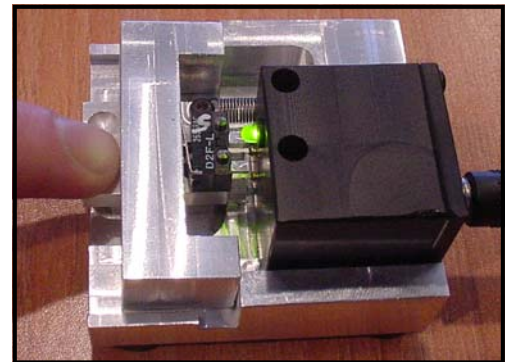
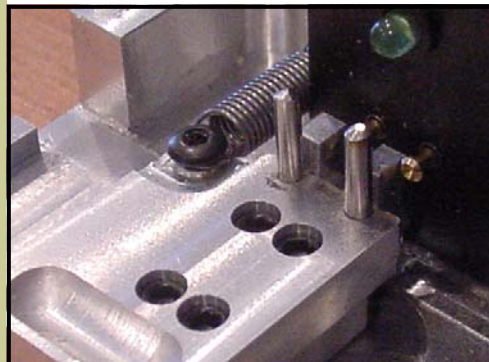
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Electromechanica, Inc. is an engineering service consultancy specializing in electrical, mechanical, manufacturing, RF and software engineering. Our clients utilize our expertise in the design and fabrication of prototype electromechanical systems.



For this project, a Fortune 500 customer hired us to design a microswitch actuation point verification system. The purpose of this custom test apparatus is to verify whether the switch actuates before or after the specified actuation travel dimension of 0.327" from bottom of housing to tip of lever arm. The test system is a precision machined system. It was designed and fabricated to be accurate to within 0.0003" over all measurement surfaces. The system utilizes a linear ball-bearing slide under spring tension for inserting and removing switches. Electrical contact is made with the switch contacts through gold-plated spring probes designed for a life of 1 million operations. A simple green LED gives the operator pass/fail feedback.



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