

# **Automated Test Equipment**





Our range of automated test equipment are customized to conduct efficient and precise testing of assemblies and systems during their design, production and maintenance stages. Typical applications include test and measurement of critical items that cannot be inspected using off the shelf testing equipment.

ATE's find widespread use in automatic testing for fault diagnosis of modules and systems. Industrial users depend on ATE's for carrying out testing at very high throughput with minimal user intervention to minimize the scope of human error.

We have over 25 years of experience in cutomizing test equipment for defence applications and have provided solutions for test & measurement of missile assemblies, missile launchers, fuzes, propellants, ignitors, missiles and torpedoes.

Based on the User Requirement and the budget, we offer 2 types of ATE's; namely **Microcontroller based** and **PC based**.







#### **Microcontroller Based**

Embedded test systems that are offered as a cost-effective package, microcontroller based ATE's are designed for higher duty cycles and ease of operation.

Typical system consists of a LCD for display purposes, a touch screen and / or customized membrane keyboard for user interface and an optional USB connected printer for report generation. The device under test is interfaced with the ATE either through a set of custom connectors or housed in a mechanical enclosure, depending on the form factor.



#### **PC Based**

Developed on the LabVIEW platform, PC based ATE's use a combination of analog and digital measurement sources along with a custom designed software application to perform high speed testing of the device under test. Real time data acquisition and visualization are the cornerstones of these ATE's.









#### Product: Anti tank missile launcher tester

**Application:** Final testing of missile launcher during assembly phase and pre-firing phase

Type of tests: Functional test, Response time, Launch mechanism test



### **Product: Spin test** equipment

**Application:** Validation of mechanical fuze

Type of tests: Shutter assembly opening time and speed



## **Product: Wire spool** unwinding test setup

**Application:** Testing of missile wire spool performance while unwinding

Type of tests: Resistance and tension measurement at high speed



#### Product: Gyro test rack

**Application:** Test and measurement of inner gimbal of a gyro used in an anti-tank missile

Type of tests: Drift parameters measurement, Gyro stabilisation rate



#### **Product: Torpedo tester**

**Application:** Final testing of torpedo to validate its functionality and also to test various sub assemblies during integration phase

Type of tests: Functional

test



#### **Product: Wire harness** tester

**Application:** Functional testing of wire harness for a critical airborne application

Type of tests: Measurement of continuity, isolation resistance and insulation strength

# **Key Features**

- ▶ Built using COTS modules for ease of operations and maintainability
- Flexible architecture design for upgradation to match user's future requirements
- Designed to ensure minimum use of manual skills to guarantee accuracy and error free operation.
- ▶ Self test feature during start up
- Rugged and portable (battery operated) depending on type of usage environment
- ▶ Can be designed to meet stringent defence requirements of JSS 55555
- User friendly GUI that needs minimal training to gain expertise
- Custom report generation
- ▶ Built in storage for recording hundreds / thousands of test results
- ▶ Can be designed to preset / set user configurable test conditions

Reach out to us to discuss your test and measurement needs. With over 25 years of experience in developing custom test equipment, we are uniquely placed to offer you the perfect solution by leveraging our multidisciplinary expertise in the fields of software, imaging, electronics, electrical, mechanical, instrumentation and electromechanical engineering.

## **Our Clients**

















# **About MQS Technologies**

MQS Technologies (formerly MedeQuip Services) is a diversified firm with Design, manufacturing & maintenance capabilities that offers custom solutions for engineering & healthcare applications.

Focused on three business lines - Non-Destructive Testing, Aerospace & Defense and Healthcare, our USP lies in leveraging decades of multidisciplinary expertise in electronics, electro-mechanical, mechanical and software domains, to provide user-friendly products and services for a wide range of industries.

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# **MQS Technologies Private Limited**