

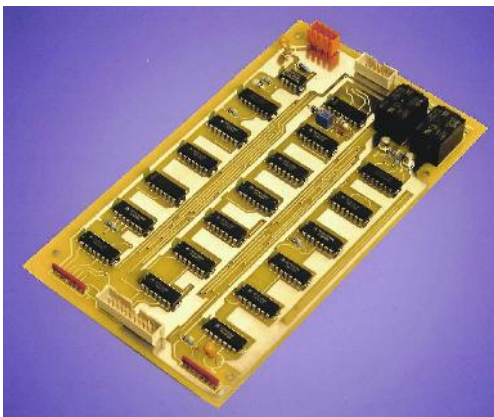


Automotive Brake Caliper Force Test Rig

Description

Design & manufacture of a force / displacement measurement test rig for a range of brake calipers.

This was based around an aluminium extruded framework, with a DC servo driven actuator to apply the load, with a loadcell and displacement transducer to measure the caliper force and displacement, whose signals were amplified prior to data collection by an industrial PC and then displayed on a TFT screen.



Logic Control PCB

Disciplines Used

- Conceptual, mechanical & electro-mechanical design
- Electronics & PCB design
- DAQ & control
- Project management
- Manufacture, assembly & test

Specification Summary

- 500 N maximum load
- +/- 0.03% load accuracy
- 125 mm displacement
- 0.1% displacement accuracy
- Fixed logic automatic cycling with manual override
- Industrial PC data acquisition
- 14" TFT monitor
- Modular aluminium construction
- Standard 19" racking



Test Rig