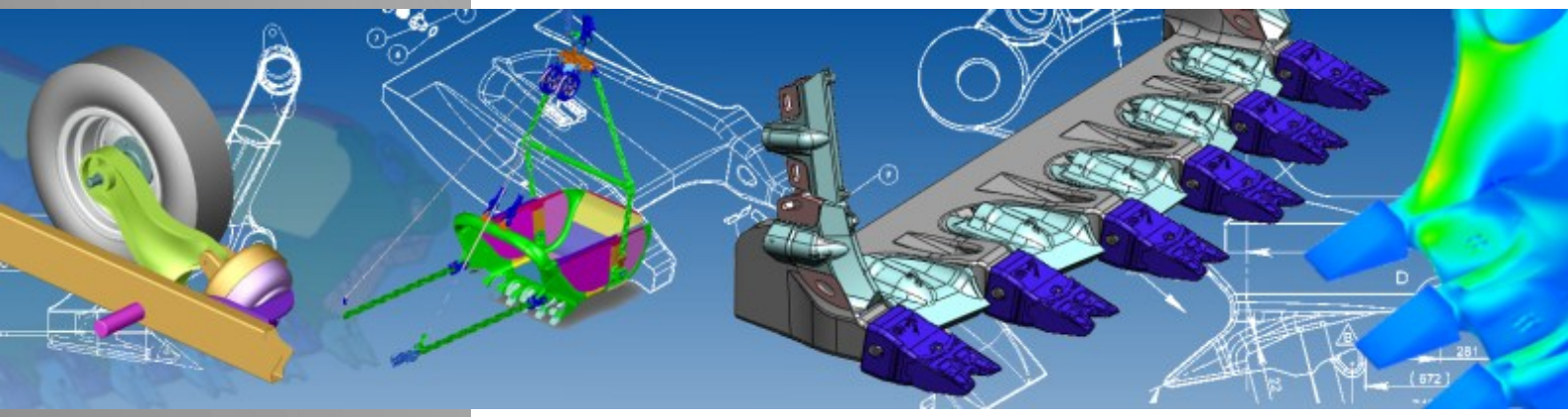
LC Engineering

www.lc.com.au

clear thinking
better solutions



Mechanical Engineering Services

EXPERT - SUPPORT - TRANSPARENT - PRACTICAL - ADVANTAGE

PROTOTYPE TO MANUFACTURE

LC Engineering can assist your prototype development by:

- Providing mechanical engineering design support
- Providing research and development into specialised technologies
- Developing your design concept to feasible prototype manufacture
- Facilitating procurement of parts and assembly of prototype
- Developing and performing prototype testing for product proving

PRODUCT SUPPORT AND TROUBLESHOOTING

LC Engineering can provide support to you product by:

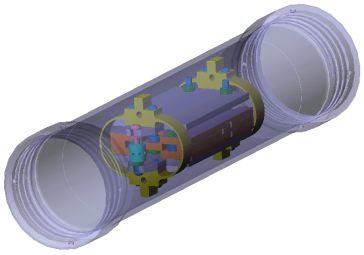
- Advancing designs to commercial ready phase
- Redesigning for improved manufacture costs
- Providing mechanical engineering design support
- Providing engineering design documentation management
- Providing root cause failure investigations and resolutions

OUR SKILLS

- Mechanical engineering expertise (RPEQ)
- SolidWorks 3D modelling
- Finite Element Analysis (FEA - Cosmos, Strand 7, Pro/MECHANICA)
- Discrete Element Modelling (DEM - EDEM software)
- Design simulation programs
- Prototype manufacture and testing
- Advanced detailed drafting expertise
- Scale testing instrumentation
- Strain gauging expertise
- Vibration analysis and condition monitoring
- Project planning and management (MS Project)
- Design document management (PDMworks, EPDM)

For more information
Please contact:
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enquiries@lc.com.au
www.lc.com.au

CASE STUDIES



Redesign for cost effective manufacture

Client: CSIRO

Challenge: Re-design strain meter product to reduce manufacture costs

Outcome: Costs down from $120k to $30k

Involved: High precision and exotic materials

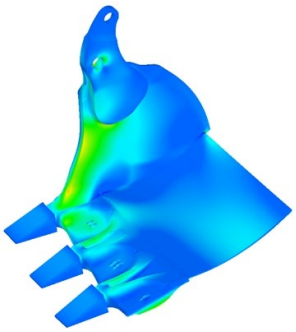
Engineering design department

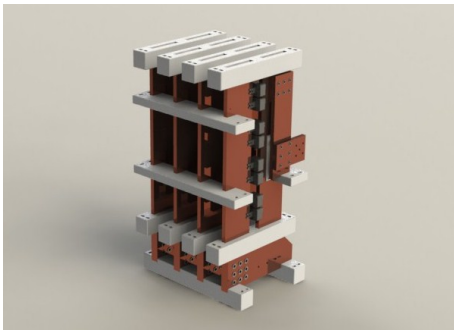
Client: CQMS Razer

Challenge: Cover all engineering research, commercialisation thru to product support

Outcome: Successful long-term product development resulting in leading market performance

Involved: Full engineering responsibility





Product design development/management

Client: Pace Engineers Group

Challenge: Set up best practice design management procedures and development for SafeARC electrical current protection product range

Outcome: Improved design and documentation systems

Involved: Project management, training, best practice 3D modelling procedures

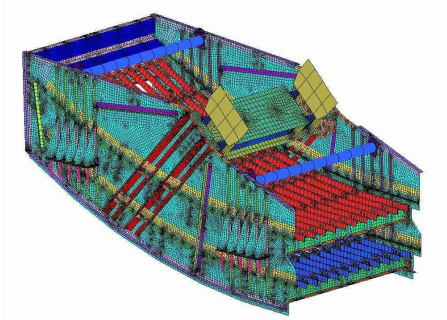
Vibrating screen design and development

Client: Vibrating Screen OEM

Challenge: Carry out vibrating screen design analysis via finite element analysis for fatigue and natural frequency

Outcome: Provide design modification to reduce stresses and manipulate stiffness and natural frequencies

Involved: Complex finite element analysis modelling, inter-pretation of results, and advances in design





Troubleshooting and design rectification

Client: RIO Tinto and GBI

Challenge: Rectify problems with rope shovel, test OEM proposed solution, provide superior solution

Outcome: OEM mods proven fallible via scale testing, LC proposed solution chosen, reduced solution cost

Involved: Scale testing to prove proposed solutions, verification of field results matched scale test data

Strain gauge testing & data logging

Client: BHP Hay Point Terminal Services

Challenge: Stacker conveyor fatigue risk assessment

Outcome: Successful full-time strain gauge monitoring

Involved: Design audit, data logging, web-based reporting

