



Mecha's innovative rapid reverse engineering team excels in the swift replication and local manufacture of critical parts right here in the heart of Central Queensland.

- Time Efficiencies
- Cost-Effective Solutions
- Cutting Edge Technology
- Competitive Advantages

Rapid Reverse Engineering (RRE):

The rapid reverse engineering process involves the scanning and analysis of existing parts to create detailed drawings and prototypes, resulting in the fabrication of identical replacements.

This innovative approach accelerates the product development life cycle and enhances competitiveness by unlocking valuable insights and opportunities for improvement.

Key Outcomes:

- Seamless integration of existing components into new modern designs, capitalizing on proven technologies while meeting industry standards.
- Development of improved versions of products for new solutions.
- Advantageous product development in fast-paced industries where staying ahead of the competition is crucial.
- Elimination of time consuming and expensive traditional product development cycles, particularly valuable in industries where time-to-market is a critical factor.
- Accurate replication of spare parts, even for discontinued or rare components for maintenance and repairs.

RRE Process:

- Laser scan the component to create technical measurements and drawings.
- Positively identify the material grade & hardness.
- Create a prototype by 3D printing for approval.
- See the component in its natural environment through our virtual reality holographic technology.
- Machine & fabricate parts within tolerance.

Our handheld scanner is capable of scanning objects sized up to 4m with an accuracy of up to 0.025mm.

Our second laser scanner allows for scanning areas up to 140m, this scanner is best suited for use with large items including buckets, dozer blades, drag lines and fixed plant machinery or structures.

Additional Toolkit:

- 360 degree video scanning.
- Design animation.
- Drone & thermal video inspections.
- Non destructive testing.
- Vibration analysis.
- Balancing & laser alignment.



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