

# Highly Flexible Automation

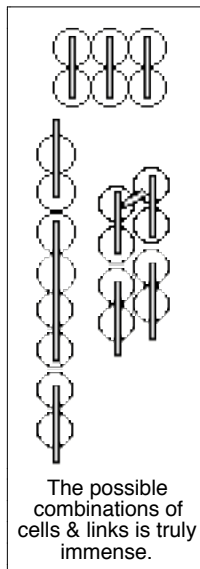


## The Challenge

A major blue chip research organisation invented the rechargeable lithium battery. Millions of battery cells were being manufactured by licensees around the world. Our client (the research organisation) asked us to prepare a strategic analysis on whether they should become manufacturers of battery packs. After consideration of our recommendations, they asked us to project manage this transformation. This case study is about one machine: the automatic link welder.

## Strategic Success Position

Azteck identified high value bespoke products such as battery packs for the military market, (especially the new Bowman / Archer radio system) as offering the best potential. These are made in small quantities (for automation), with a large number of variants (for automation). The client's vision was clear:- 'consistent quality is born of automation'. This was a staggeringly difficult brief.



## Azteck's Role in Programme

Azteck enabled the programme by bringing complimentary skills to the team.

- Δ Define Automation Strategy: utilising 'Islands of Automation' - processes that are common to many designs or where a process was capable of flexibility.
- Δ Project Management.
- Δ Concept Innovation & development in partnership with contractor.
- Δ Manufacturing Process Expertise.
- Δ Wrote the user interface that creates 'product programmes' from the CAD drawing and automatically prepares data for the robot controllers.

*ultimate  
flexibility,  
zero set time*

## Benefits

- Δ Innovative Processes & Technology brought into business.
- Δ A production cell capable of making any shape battery pack with any number & layout of links while running unattended.
- Δ Literally, Zero Set Time.
- Δ Step change in product quality and consistency.
- Δ Project Management;- constructive partnership.

## World-wide Success

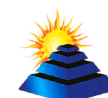
The client is now established as the world's leading manufacturer of high performance and bespoke rechargeable lithium cells and battery packs. They won the contract to supply all the batteries for the Bowman / Archer military radio system.

We gratefully acknowledge our client's assistance in preparing this case study.



Photo & sketch by courtesy of our client, thank you.

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for  
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