

Photon Automation

**Custom machine builder and system
integrator for advanced
manufacturing applications with
experience in laser technology.**

Applications Lab
Manufacturing Cells
Production Systems
Contract Manufacturing

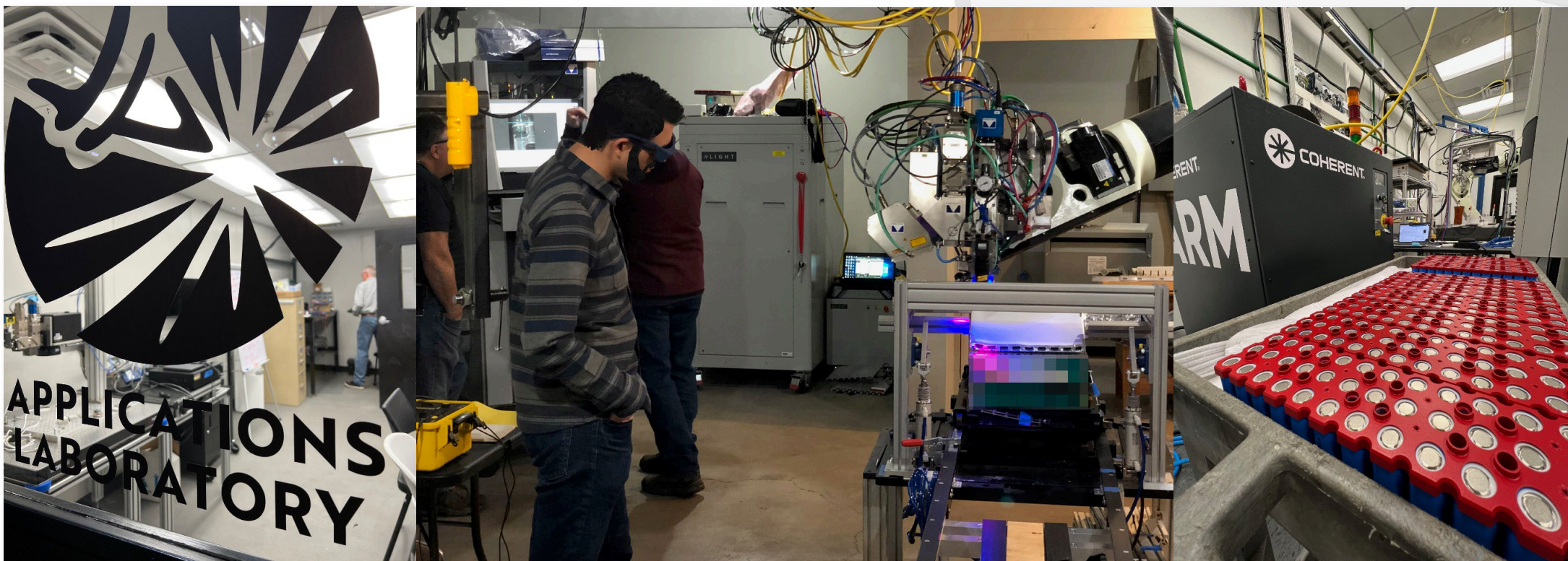
The logo for NAAT Batt International features the company name in a bold, sans-serif font. 'NAAT' is in blue and 'Batt' is in green. To the left of the text is a stylized icon consisting of three horizontal bars of increasing length, resembling a barcode or a signal. Below the main text, the word 'INTERNATIONAL' is written in a smaller, all-caps, sans-serif font.

INTERNATIONAL



THE "APPS LAB"

In-house laser applications development





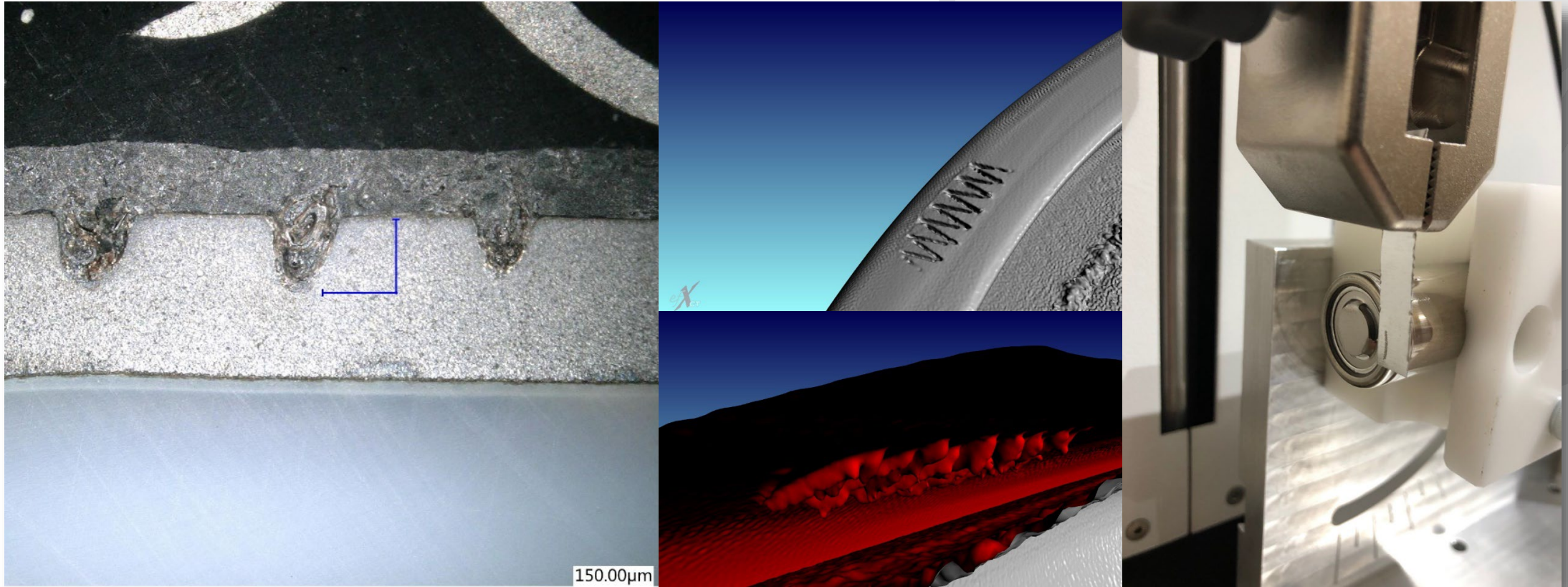
THE "APPS LAB"

Quality and testing equipment including a CT scanner



THE “APPS LAB”

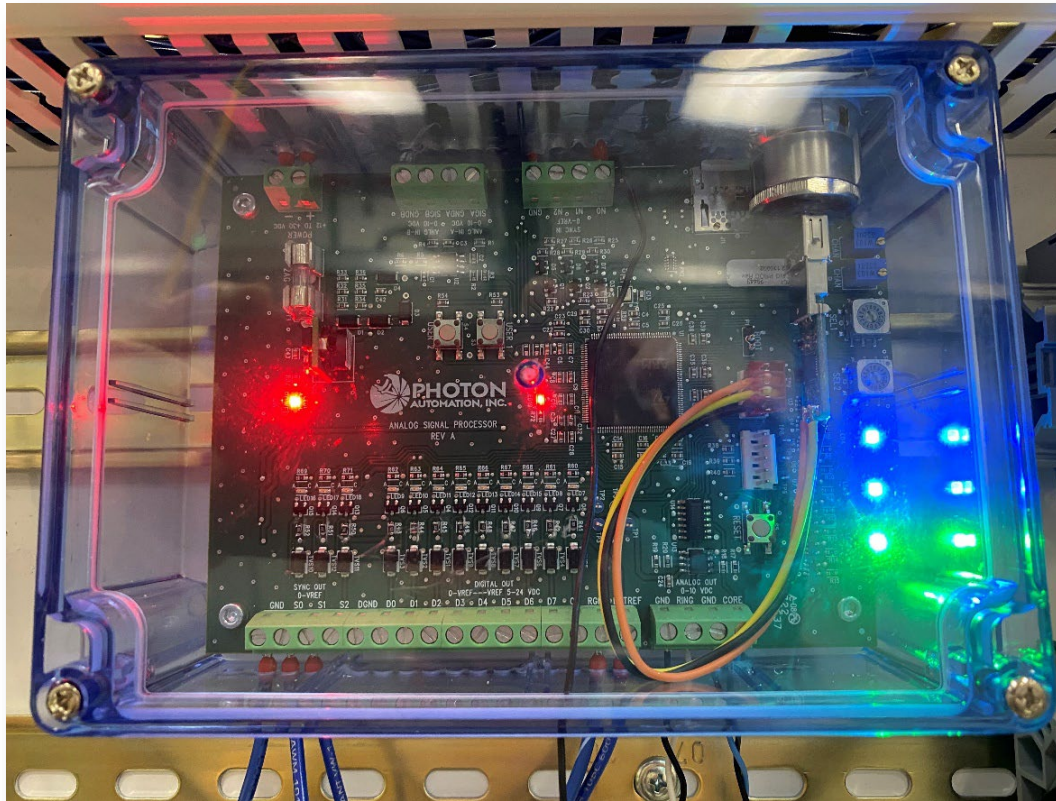
Going that extra step to prove out laser welds





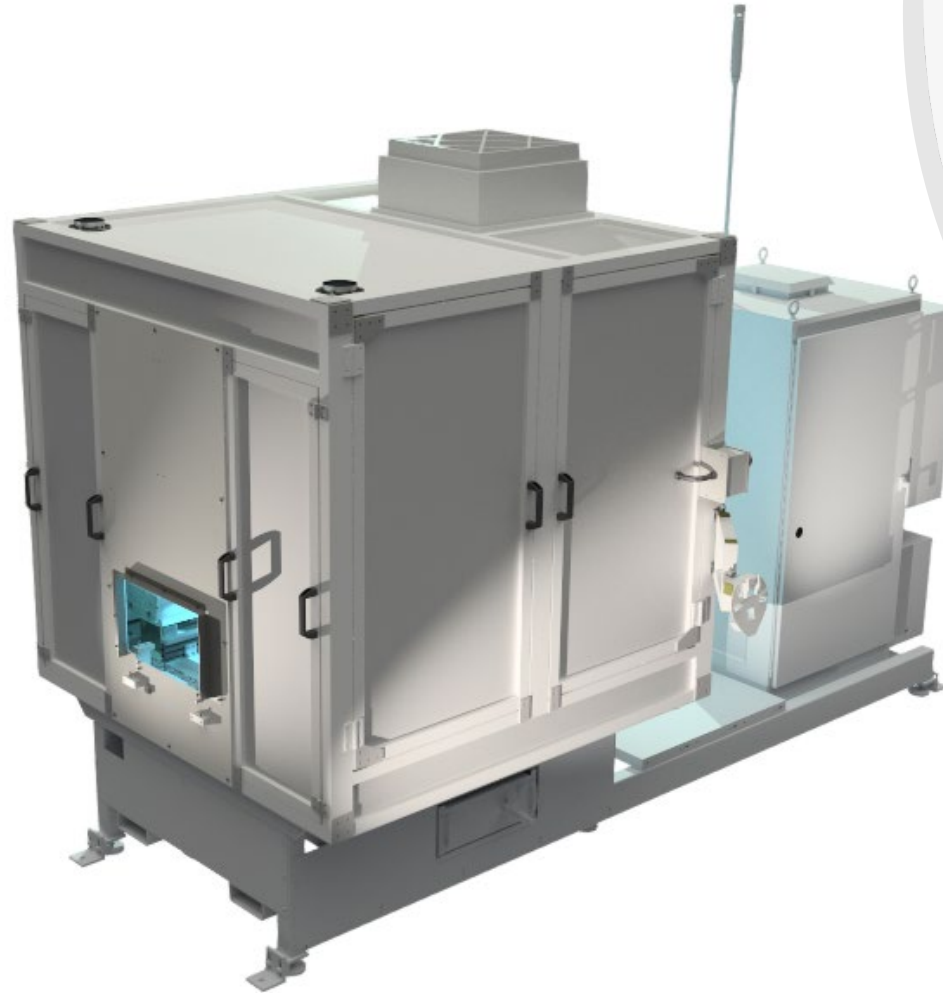
THE "APPS LAB"

In-house product development: WonderBoard™ & Pulse Spread Technology™



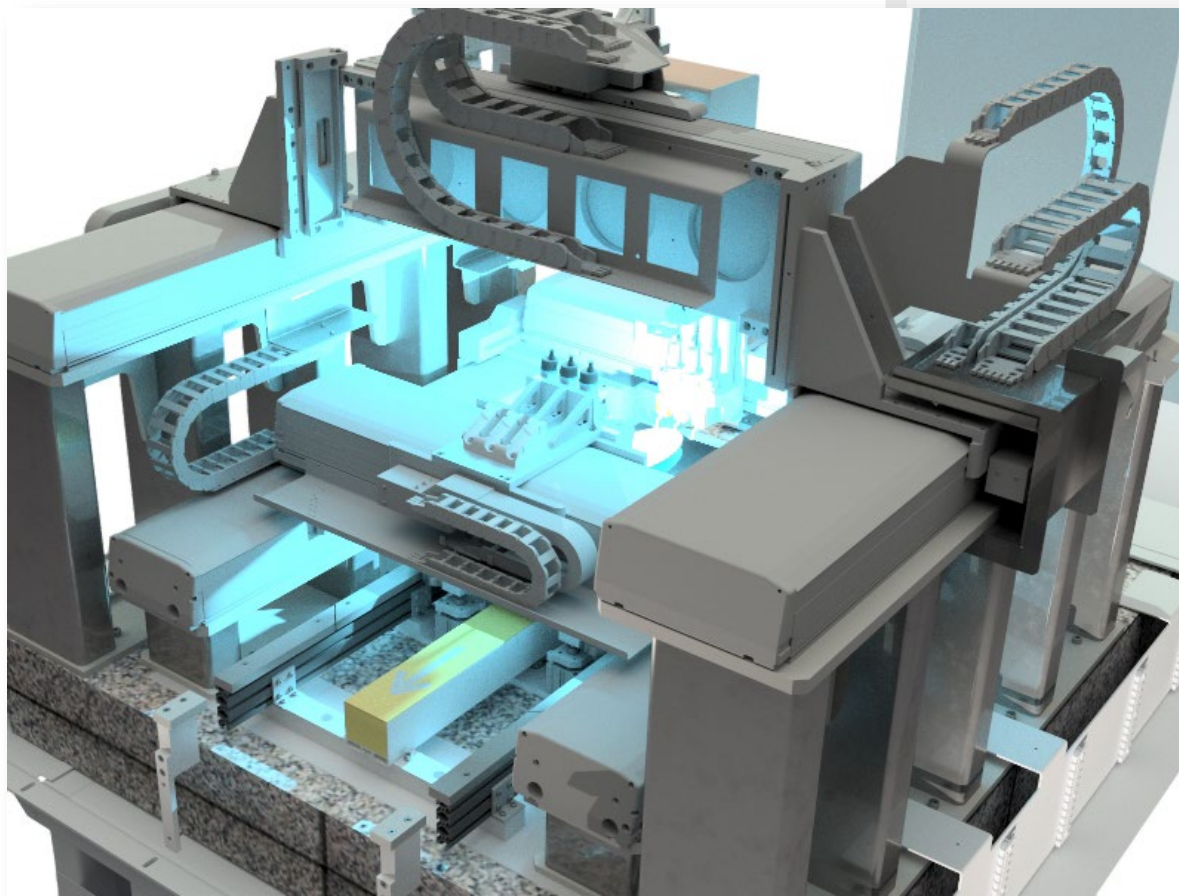
MANUFACTURING CELLS

Battery laser welding system – standalone cell & in-line system



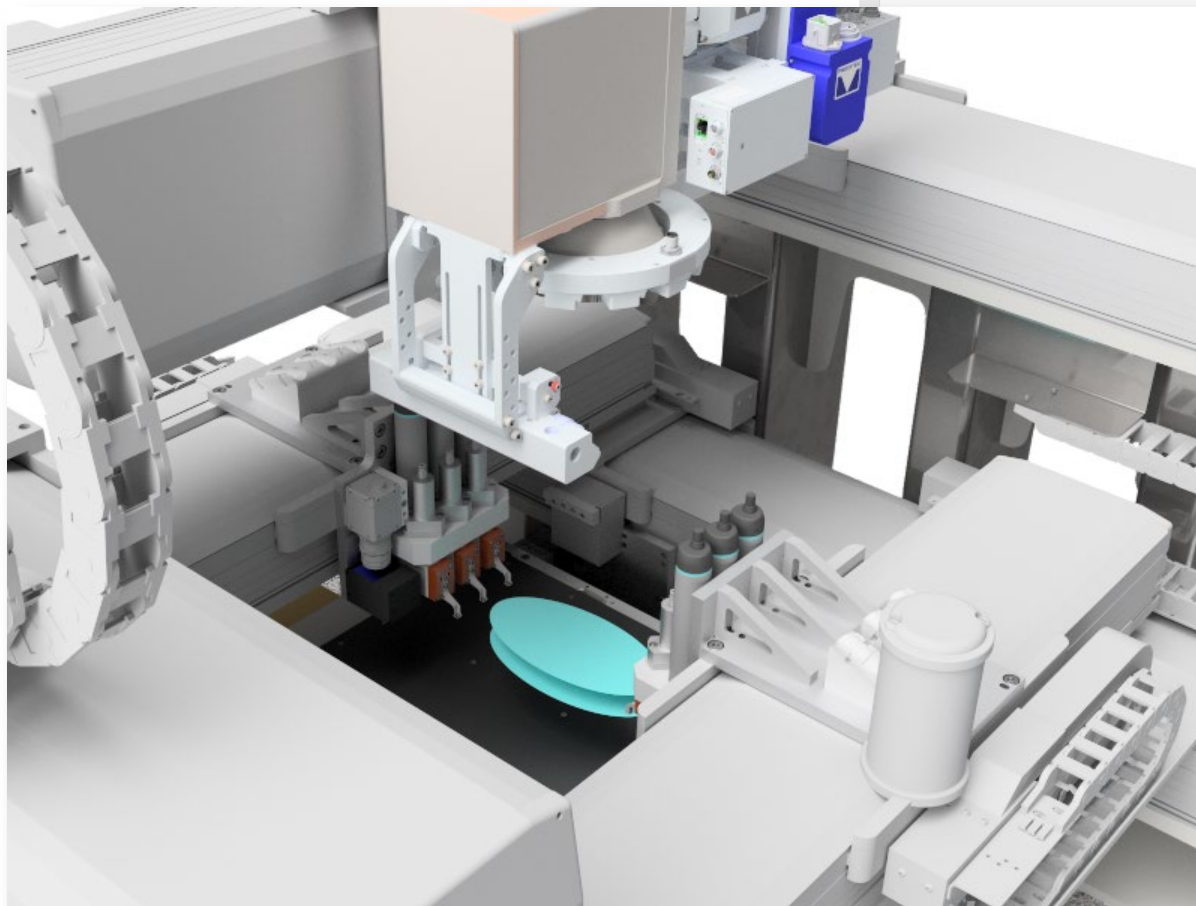
MANUFACTURING CELLS

Battery laser welding system – dual linear servo gantries and Castinite™ base



MANUFACTURING CELLS

Battery laser welding system – vision guided beam delivery



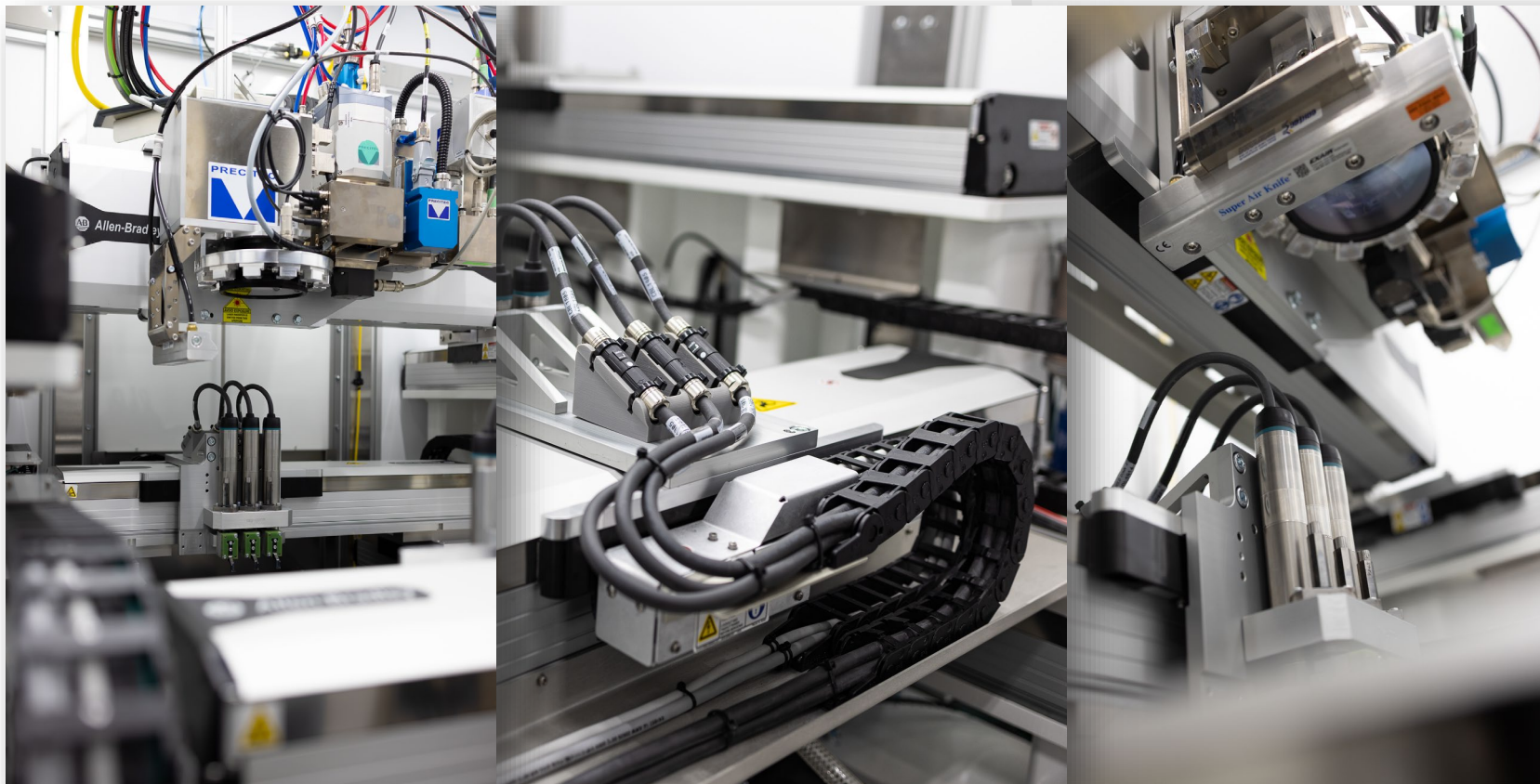
MANUFACTURING CELLS

Battery laser welding system - exterior



MANUFACTURING CELLS

Battery laser welding system – interior detail





MANUFACTURING CELLS

Laser welding system – shuttle conveyance & staging





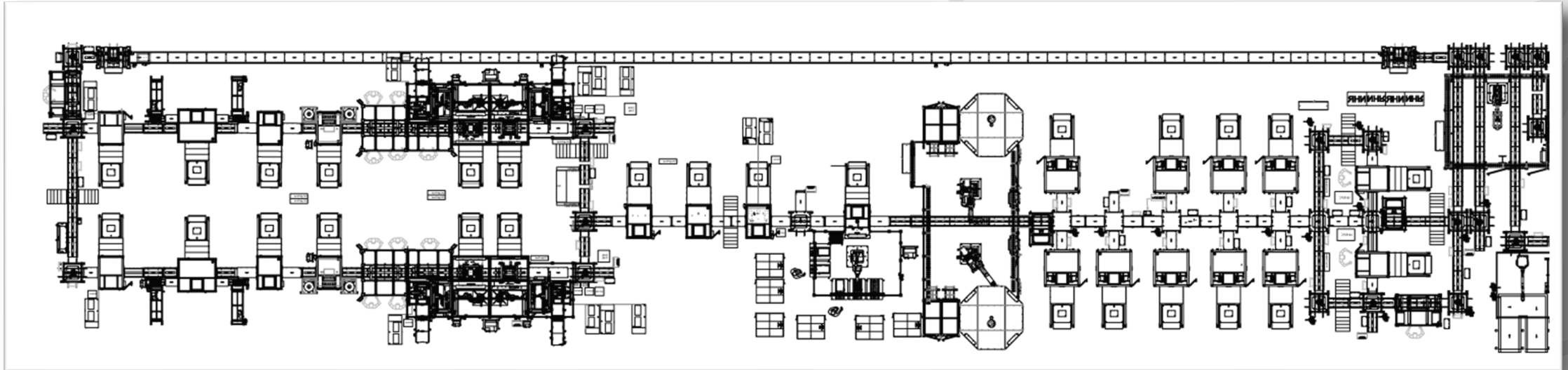
MANUFACTURING CELLS

Hairpin laser welder – prototype lab



PRODUCTION SYSTEMS

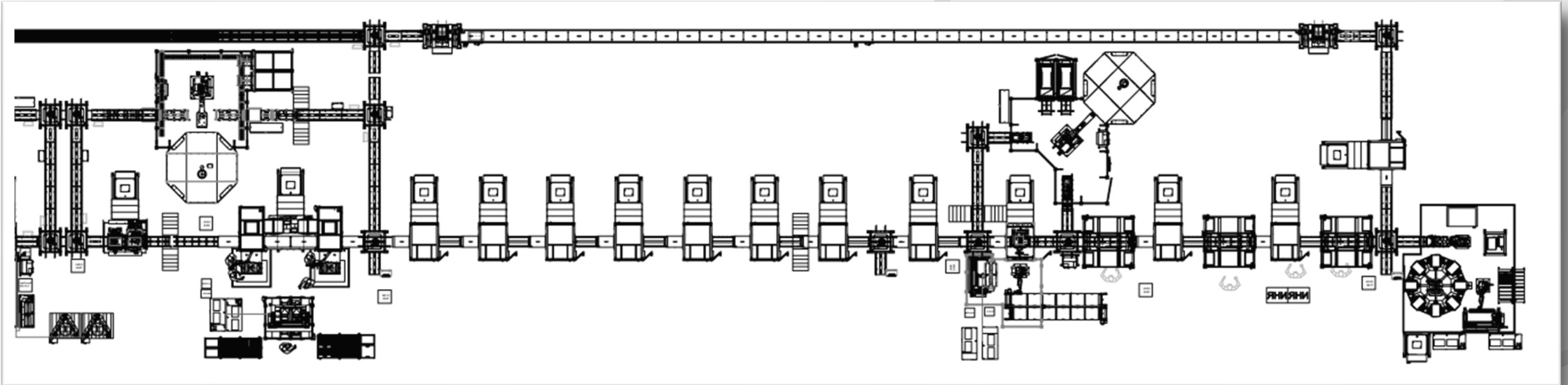
Battery pack assembly line (1 of 2)



- Adhesive dispensing
- Adhesive fixturing
- Adhesive curing buffer
- Cell measurement & pre-qualification
- Cell placement
- Cell barrier installation
- Cell position mapping
- Cooling plate assembly
- Electrical testing

PRODUCTION SYSTEMS

Battery pack assembly line (2 of 2)



- Fastening
- Forming
- Laser cleaning
- Laser welding – interconnects & busbars
- Plasma treating
- Precision pressing
- Robotic assembly
- Sub-module & module assembly
- Vision system inspection



CONTRACT MANUFACTURING

In-house laser system - prototype development & production



Photon Automation

501 West New Road, Greenfield, IN

Bill Fletcher: Sales & Marketing Manager

bfletcher@photonautomation.com

317-649-0923

The logo for NAAT Batt International. It features the word "NAAT" in a bold, blue, sans-serif font, followed by "Batt" in a bold, green, sans-serif font. Below "NAAT" are three horizontal green bars of increasing length. Below "Batt" are three horizontal green bars of increasing length. Below the entire logo, the word "INTERNATIONAL" is written in a smaller, blue, sans-serif font, with wide letter spacing.

NAAT Batt
INTERNATIONAL