

Photon Automation

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

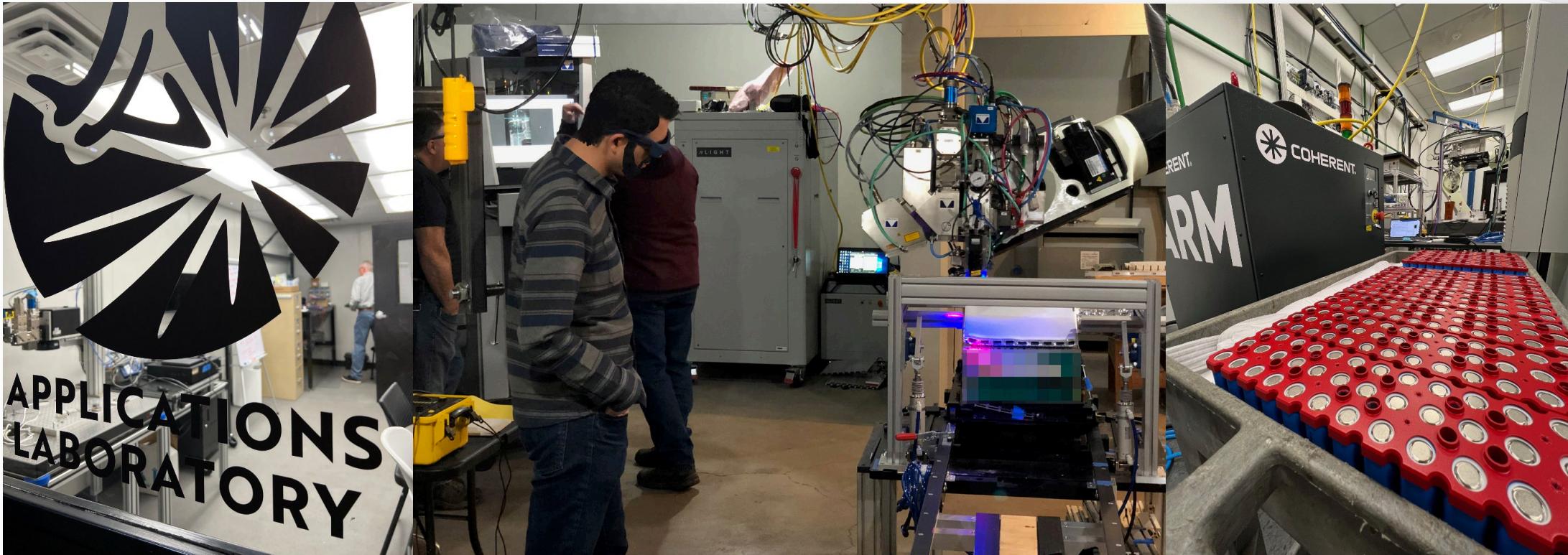
Applications Lab
Manufacturing Cells
Production Systems
Contract Manufacturing





THE “APPS LAB”

In-house laser applications development





THE “APPS LAB”

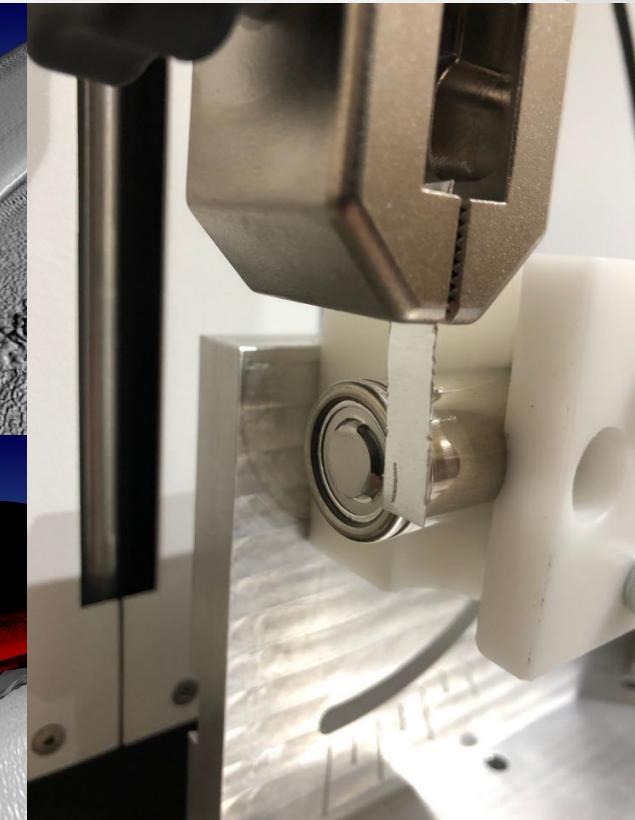
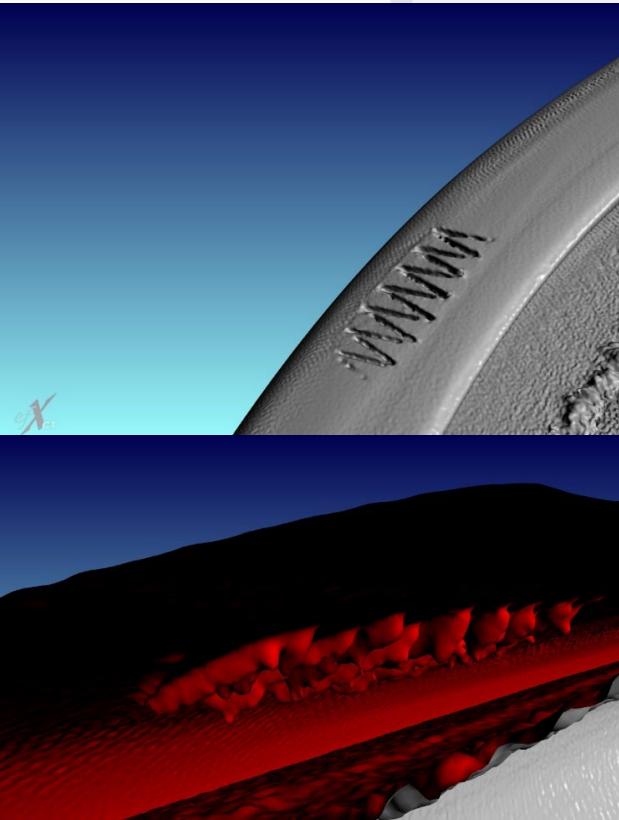
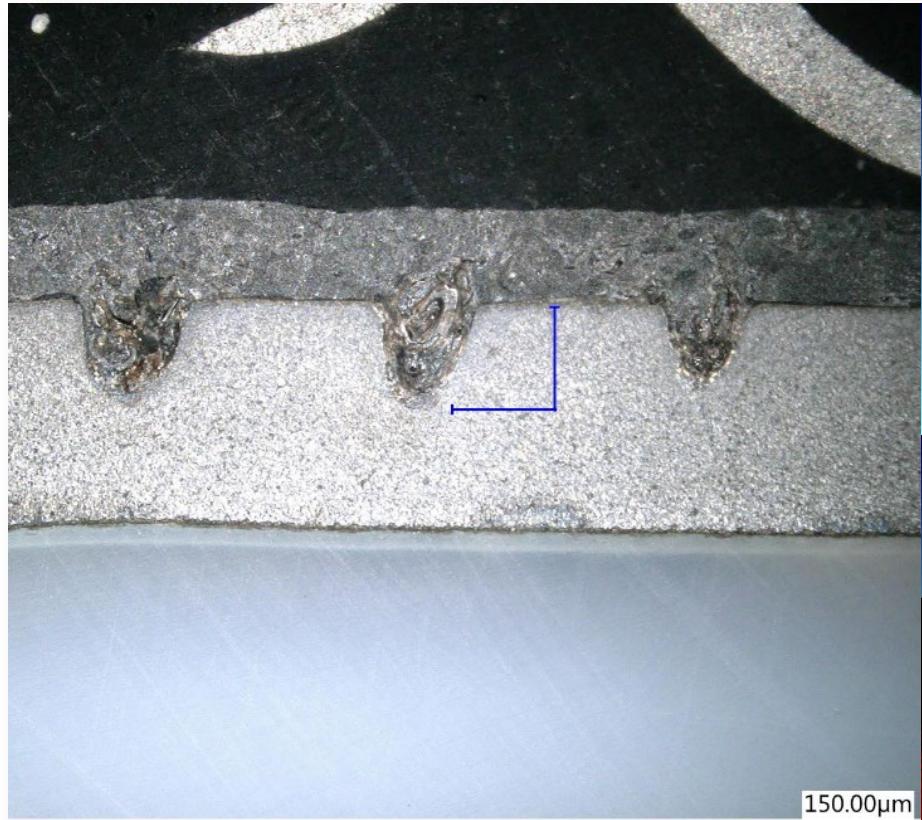
Quality and testing equipment including a CT scanner





THE “APPS LAB”

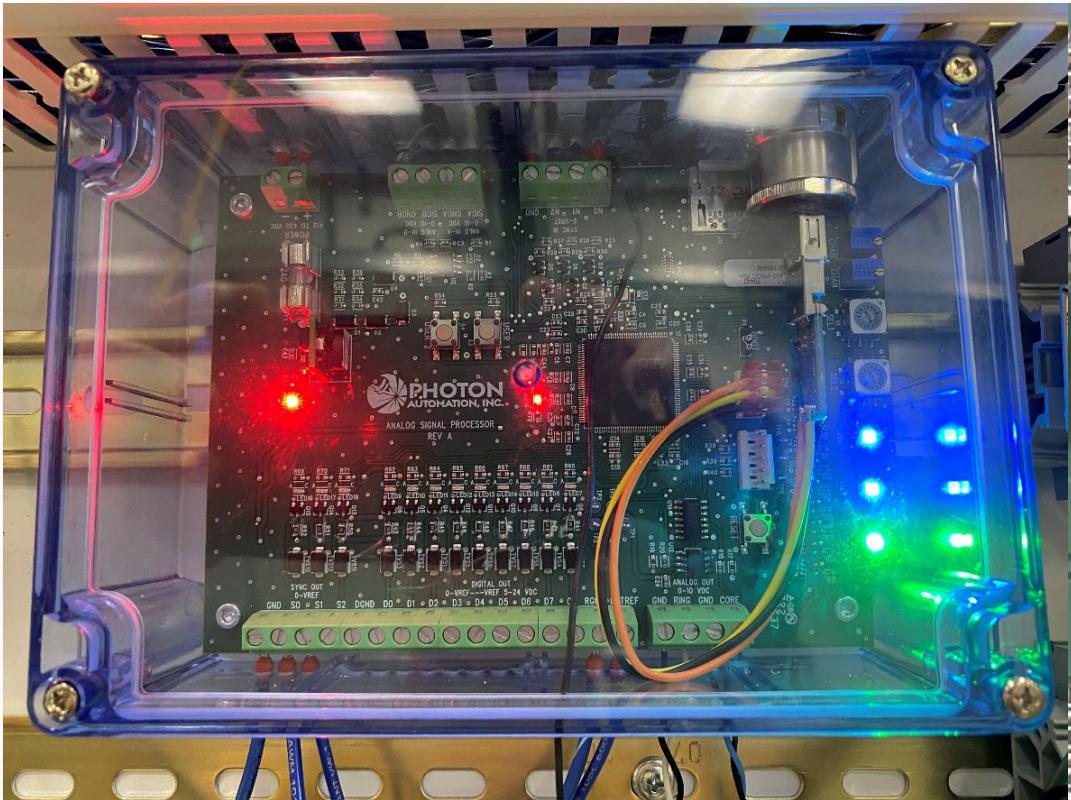
Going that extra step to prove out laser welds





THE “APPS LAB”

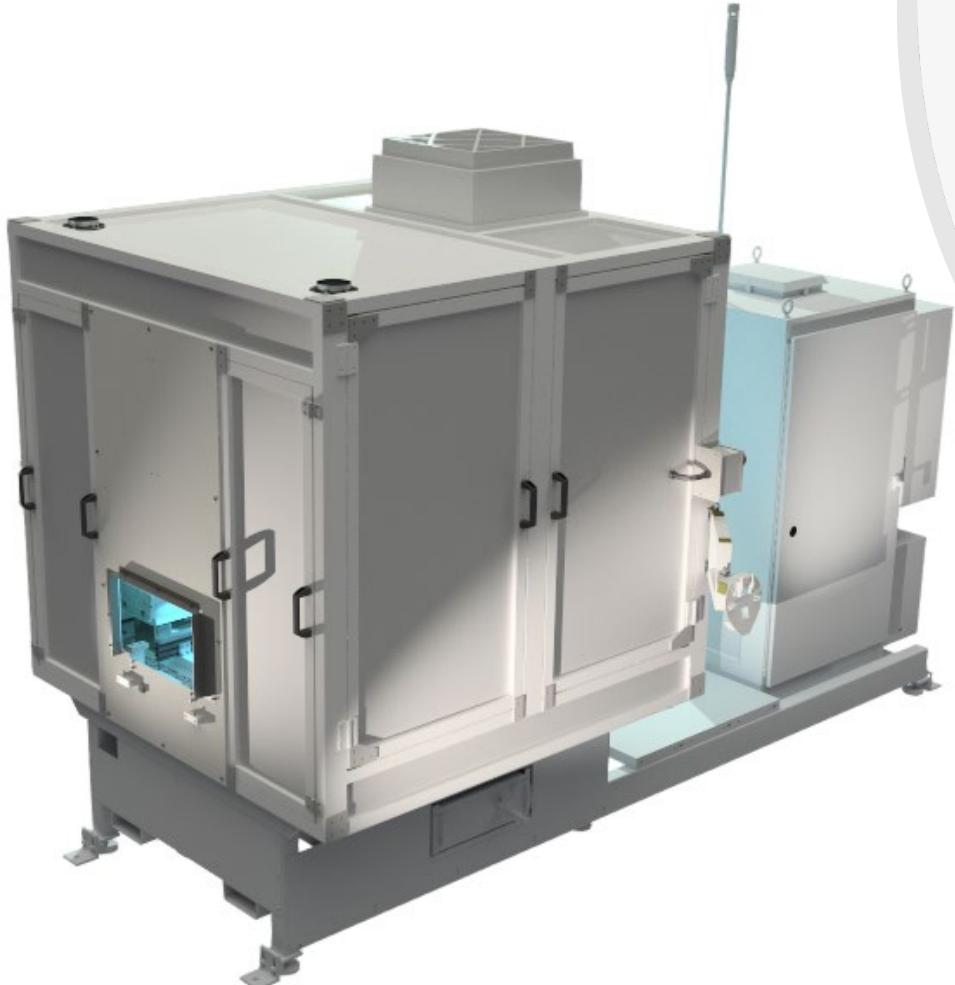
In-house product development: WonderBoard™ & Pulse Spread Technology™





MANUFACTURING CELLS

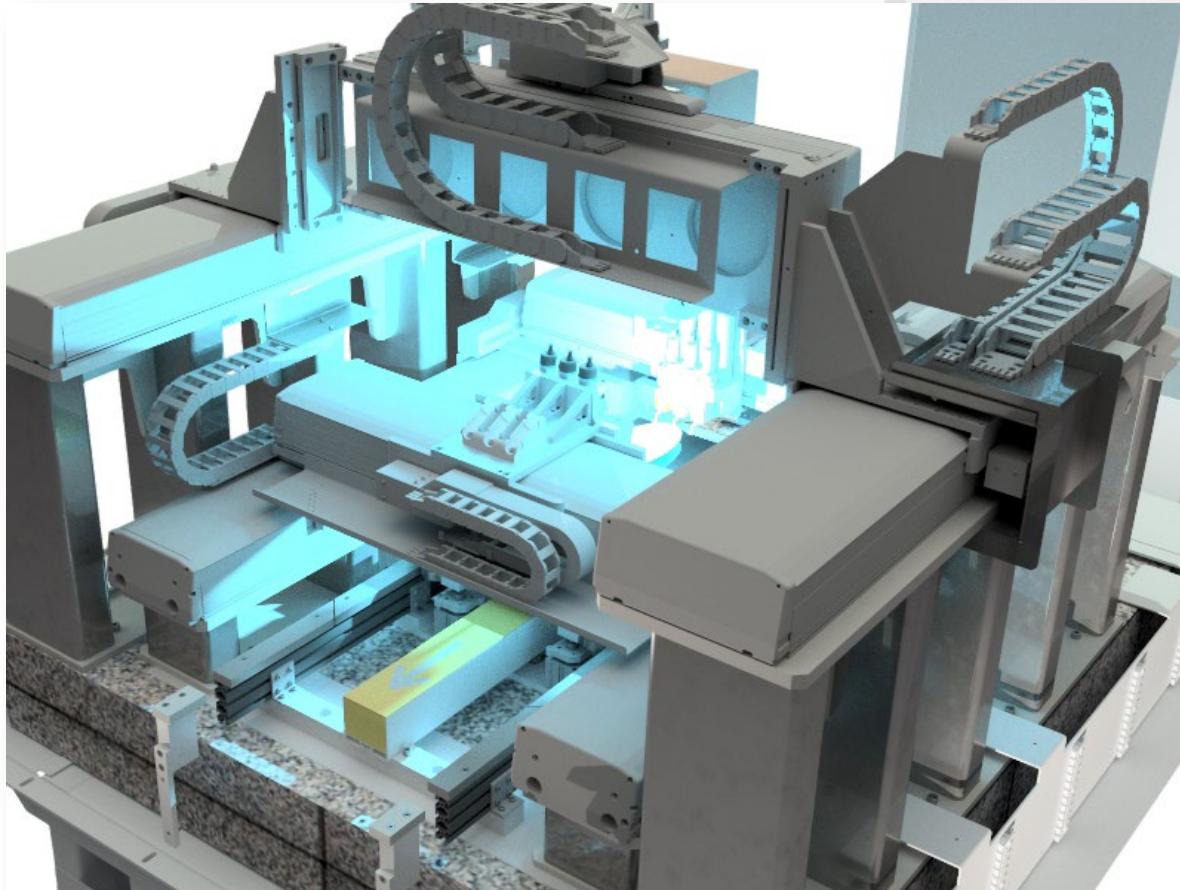
Battery laser welding system – standalone cell & in-line system





MANUFACTURING CELLS

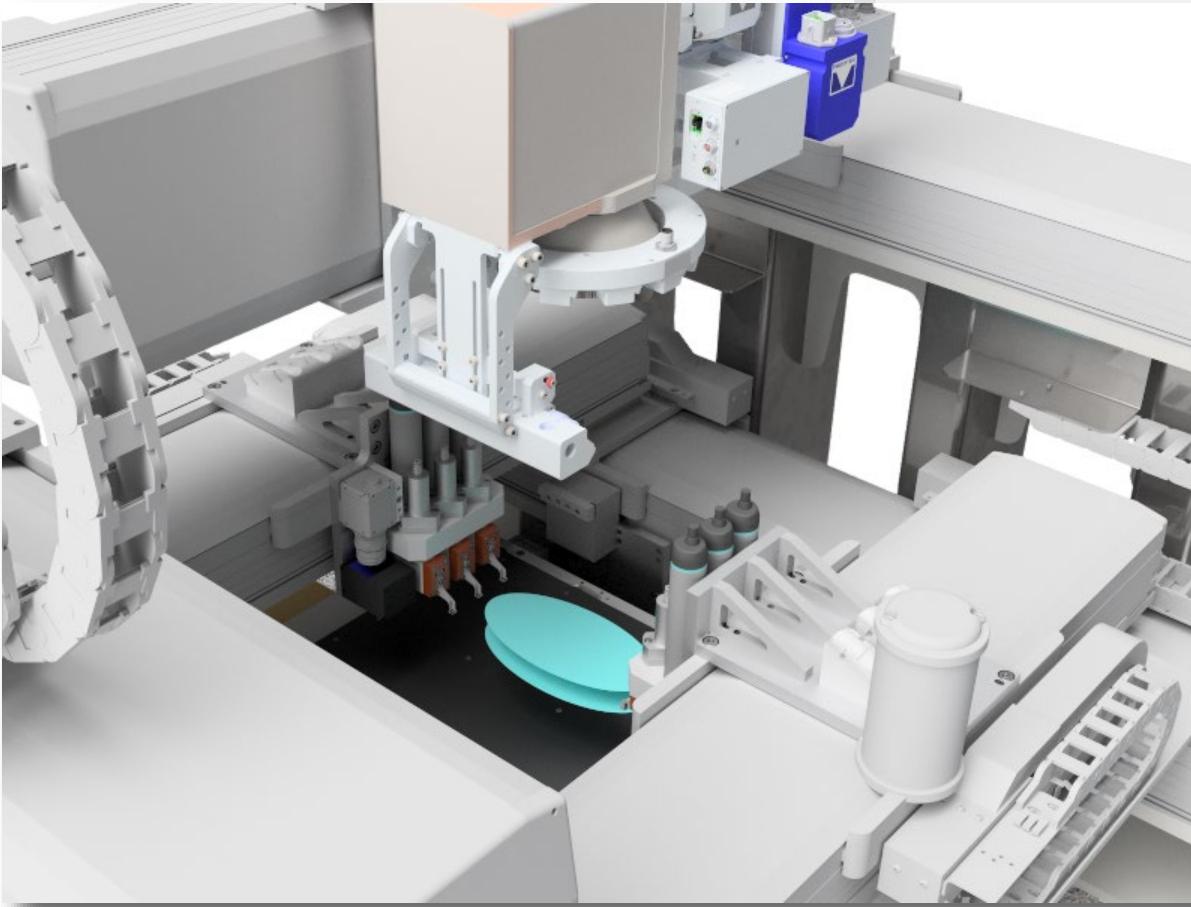
Battery laser welding system – dual linear servo gantries and Castinite™ base





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





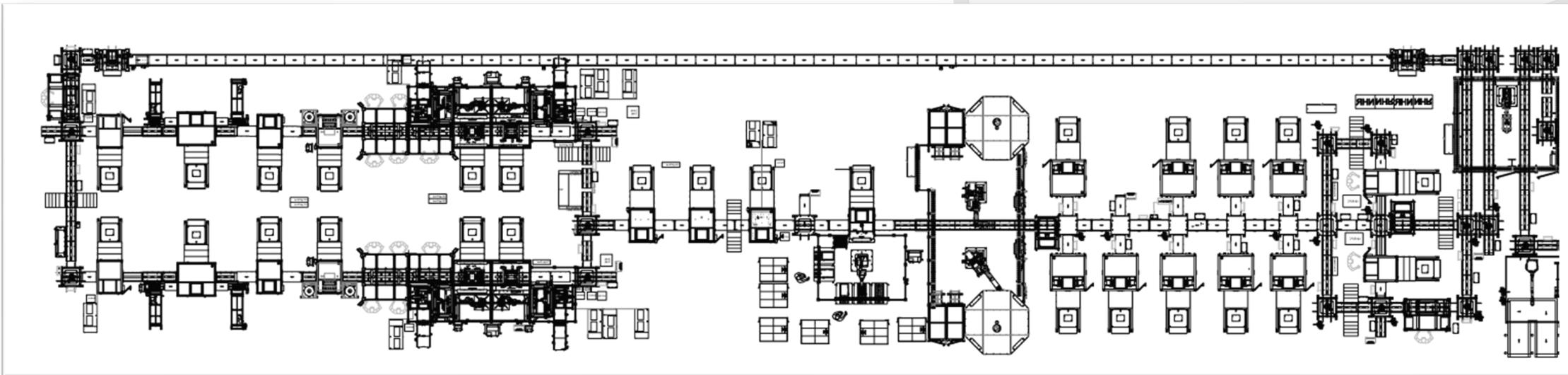
MANUFACTURING CELLS

Hairpin laser welder – prototype lab



PRODUCTION SYSTEMS

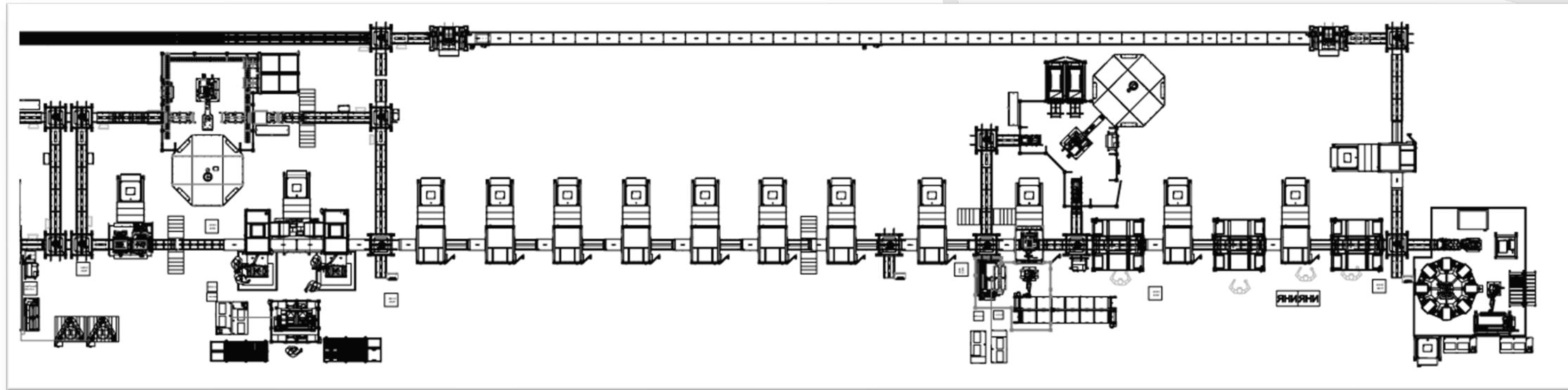
Battery pack assembly line (1 of 2)



- 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





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