



# Corporate Presentation

# Corporate Overview

## Vision and Values

### Vision

“Deeply devoted to improving our customers’ safety, productivity, and profitability with innovative and practical automation”

### Values

Ionic is a technology company, formed and run by engineers and the company embodies engineering values

- Passionate about innovation
- Enthusiastic about new challenges
- Financially conservative

# Corporate Overview

## Industries Served

- Metals Processing
- Mining
- Power Generation
- Forestry
- Automotive
- Manufacturing
- Medical Devices

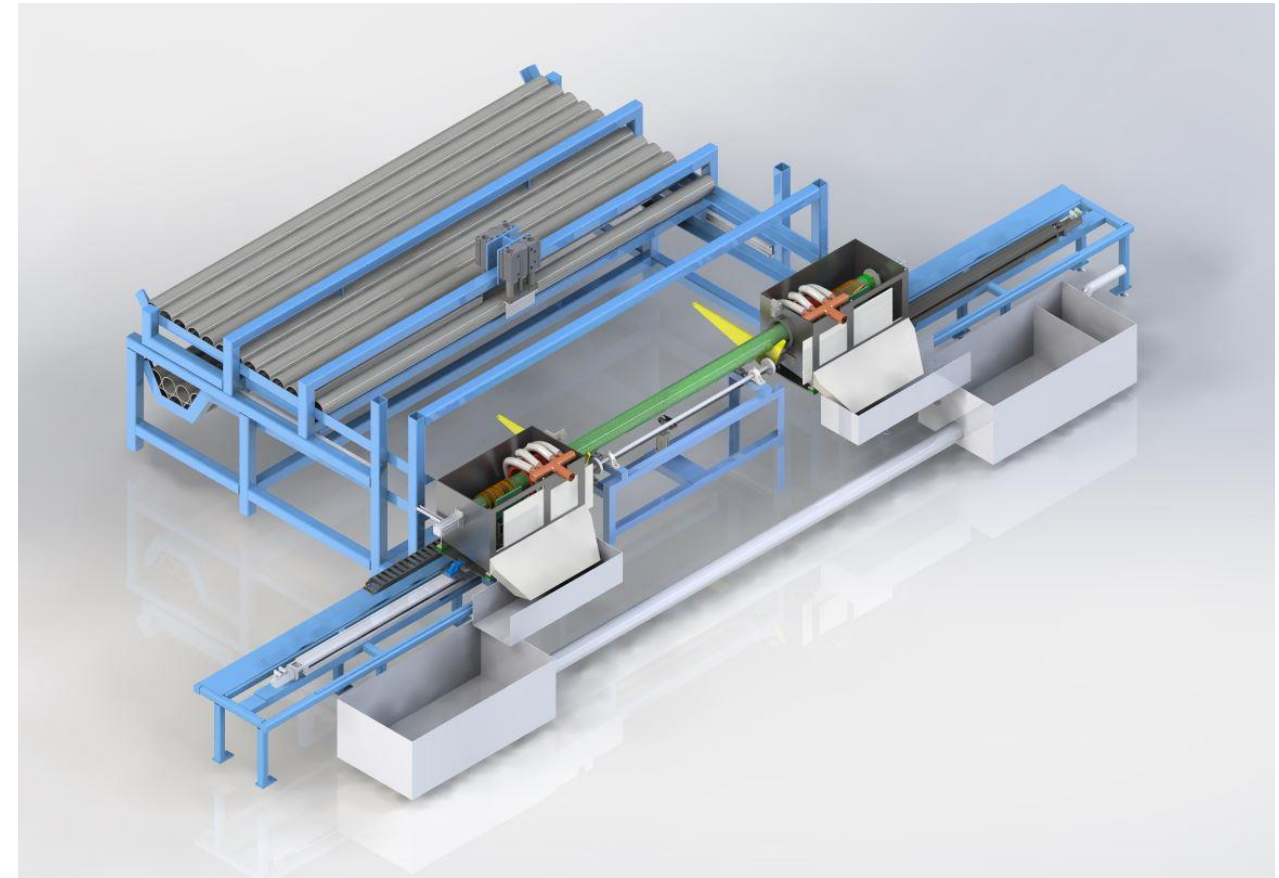




# Ionic Mechatronics – What We Do

## Plant Process Automation

- Robotic systems, transfer systems, material movement systems
- Brown field and Green field applications
- Work around customers needs
- Brand agnostic
- Work towards a common ROI
- Cycle time analysis and production flow analysis



*Drill Rod Heat Treat System*

# Ionic Mechatronics - Example

## Plant Process Automation

- Insert Bowl Feeder
- Brownfield Application
- No Additional Labour
- PLC controlled
- Safety Rated

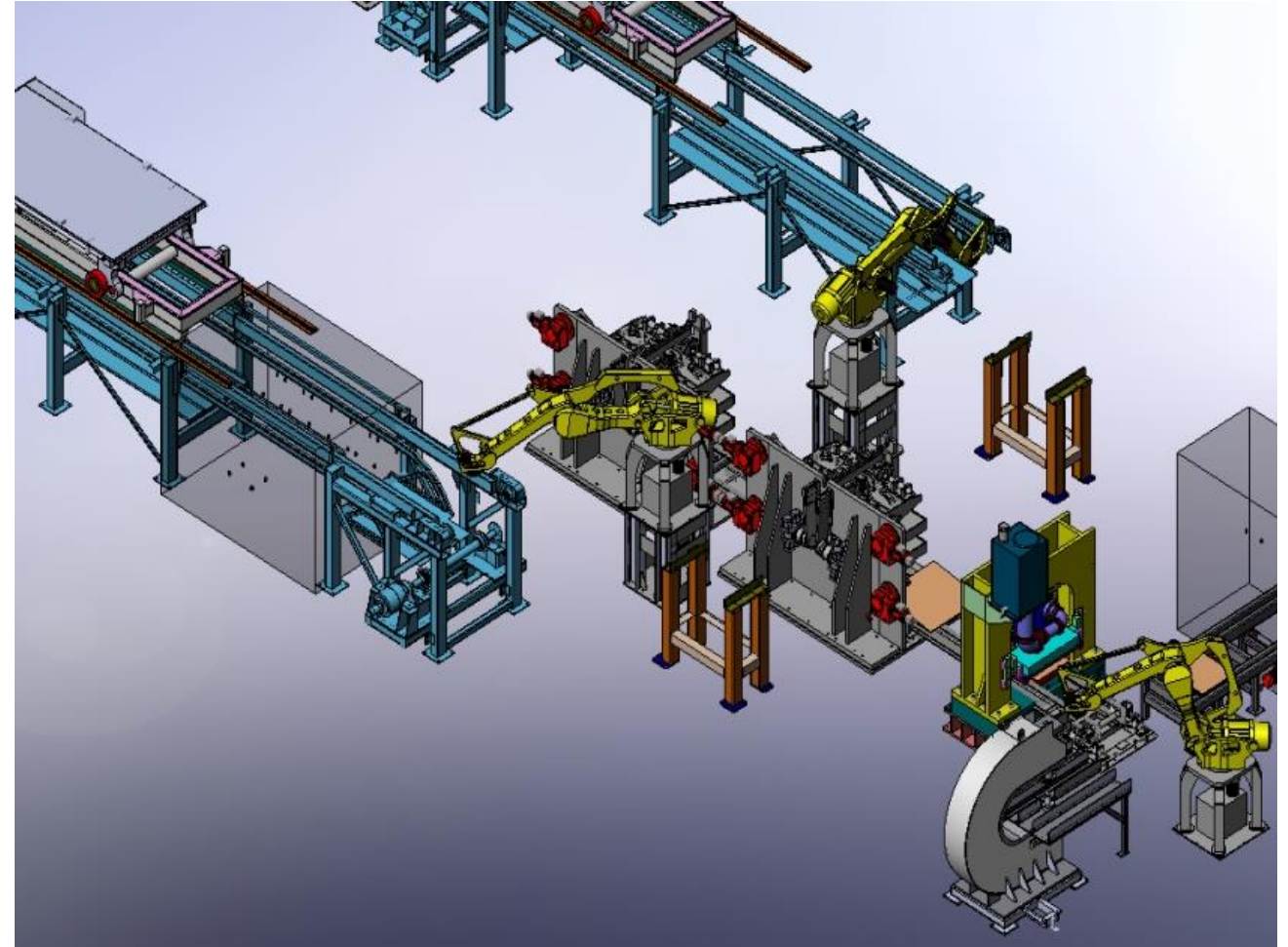


*Drill Bit Insert Automation*

# Ionic Mechatronics – What We Do

## Assembly Automation

- Complete Machine build from concept to testing
- Brown field and Green field applications
- Material handling, part feeders, rotary dials, screw feeders, automated pressing, automated labelling, packaging, banding
- Work towards a common ROI



*Copper Stripping Machine*



# Ionic Mechatronics – Custom Machinery

- Engineering, design and manufacturing of custom electric and electro-hydraulic machinery
- Designed for rugged, contaminated environments



*Custom Built Machines*

# Ionic Mechatronics – What We Do

## Machine Safety Upgrades

- Application of ISO 13849-1 & CSA Z432 Codes
- Safety Audits
- Pre-Start Health and Safety Reviews (PSSR / PSR)
- Design and Implement Safety Upgrades
- In House CMSE Certification





# Ionic Mechatronics - Technologies

## Metal Processing Experience

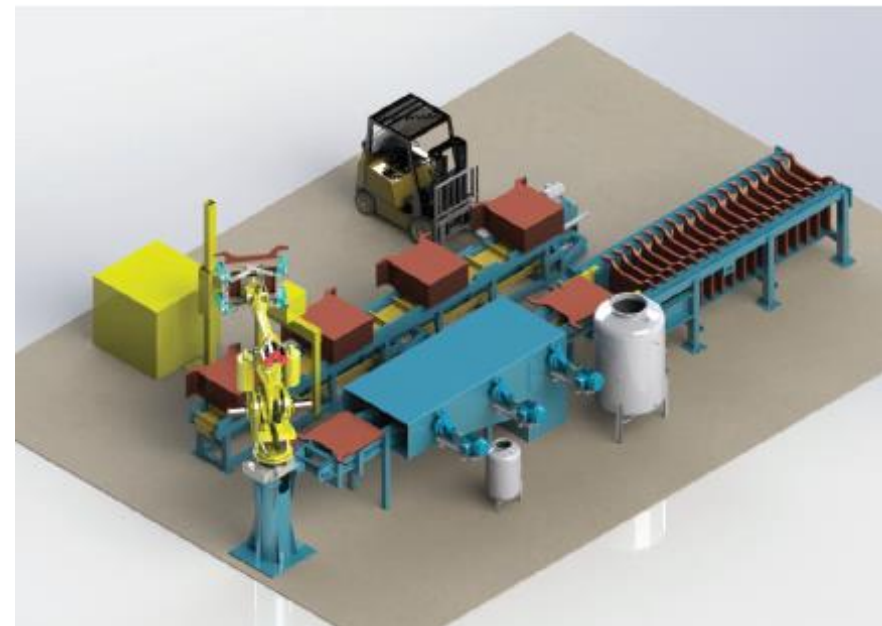
- Copper
- Nickel
- Manganese
- Zinc
- Cobalt
- Lead
- Uranium
- Concentrates



*Concentrate Bagging*



*Anode Prep Machine*



*Anode Scrap Wash*

# Ionic Mechatronics - Technologies

## Production Equipment Automation

- Increasing need for automated functions
- Reducing MSD injuries and increasing safety by eliminating hazardous jobs
- Production, Development, Muck Circuit, Mobile Equipment, Skips



# Functional Safety Analysis

- 3<sup>rd</sup> party review of Autonomous Mining Systems – U/G and Surface
- Interaction between various OEM equipment (guidance systems)
- Recommendations and design for additional safety enhancements / requirements

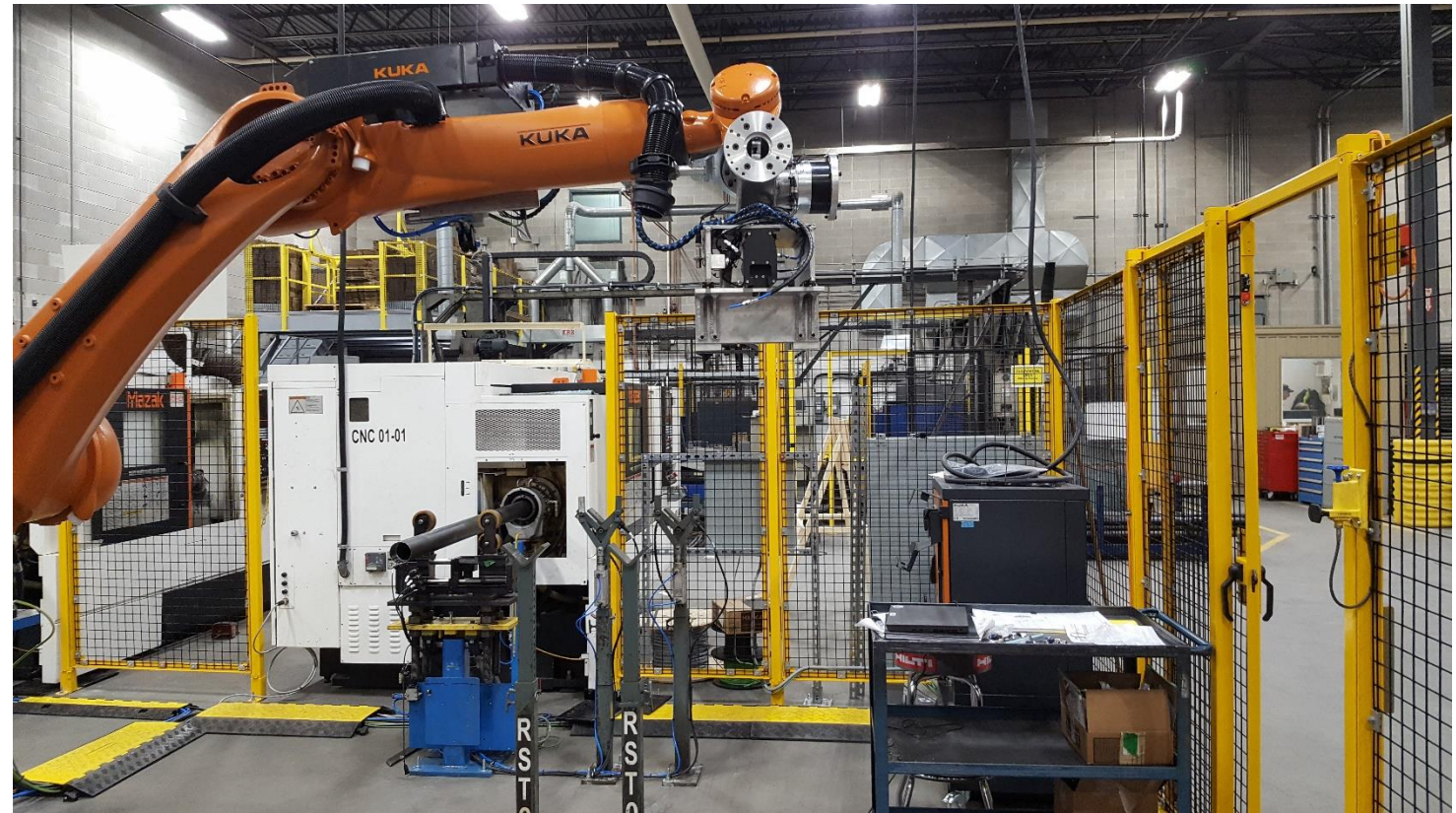




# Ionic Mechatronics - Technologies

## OEM Equipment Support and Modifications

- Competitive landscape – stay ahead of competition
- Remote control, semi-autonomous, robotic
- Engineering support for vehicle modifications
- Big push for more robotics / automation underground



*Robot CNC Tending and Heat Treat Cell*





## MASTER CONTROL

Safely Isolates all connected field-isolation devices from a single lockout point.



## SAFETY-COMMS

Communications protocol ensures no-gap continuous data stream.



# SafeBox is the Future of Energy Isolation

- Exceeds ISO & CSA standards
- PLe reliability rating
- Scalable up to 250 units
- Eliminates human error
- Simple UX
- Safety-rated technology
- Integrate hydraulic, pneumatic & electrical motors to a centralized system
- Increase effectiveness & efficiency of maintenance & inspection process
- ROI < 1 year



Zero Energy = Zero Risk





**Thank you**

**[www.ionicmechatronics.com](http://www.ionicmechatronics.com)**