Robotic Mining Technologies

Tomorrow’s Solutions for Today’s Mining Problems

**HIGH-MOBILITY MINING PLATFORM**
Powerful, multi-purpose platform assists miners and enables mining in hazardous areas and at deeper levels. Improves mine safety, efficiency and productivity.

**CONVEYOR BELT INSPECTION**
Detects failing mechanical and vulcanized splices in conveyor belts. Prevents costly unscheduled belt downtime.

**EROSION ANALYSIS**
Reports fragmentation statistics after a blast. Revises drill patterns to optimize rock size.

**FRAGMENTATION ANALYSIS**
Reports fragmentation statistics after a blast. Revises drill patterns to optimize rock size.

**AUTONOMOUS VEHICLES**
Robotic mining vehicles plan routes, avoid obstacles, and follow the rules of the road. Safer, more efficient, less equipment damage.

**CONVEYOR BELT INSPECTION**
Detects failing mechanical and vulcanized splices in conveyor belts. Prevents costly unscheduled belt downtime.

**CONTROLLER TELETECHNOLOGIES**
Real-time, 3D teleoperation of equipment and vehicles. Plan missions and monitor mine operations from thousands of miles away.

**OPERATOR ASSIST**
Visual sensors help operators align machines and measure progress. Improves mine safety, efficiency and productivity.

**MINER LOCATION SYSTEM**
GPS-independent shoe inserts accurately compute miners’ locations as they walk. No more guessing about miners’ positions.

**3D MAPPING**
GPS-independent, high-resolution imagery used to map mines safely and efficiently.

**AUTONOMOUS LOADING SYSTEM**
Planning and control software and 3D sensors automate laborious loading task. Higher throughput per shift than the average operator.

**OPERATOR ASSIST**
Visual sensors help operators align machines and measure progress. Improves mine safety, efficiency and productivity.