Phone: +1 419 322 6651 Email: <u>Sales@AllSolutionsnetworks.com</u> Web: www.allsolutionsus.com

Capability Statement

All Solutions LLC is a small, minority owned business registered in the State of Ohio, United State. Our business focus includes full-service automation control engineering, IoT, vision inspection electrical installation management, quality assurance/quality control services, technical reviews of RFPs, Electric drawings and contract documents, as well as full-service engineering design.

With over 50 years of combined experience, All Solutions' principals play key roles as both project and quality control managers assuring that our clients receive optimal, cost-effective solutions that are functional, efficient and focused on exceeding client expectations.

We have earned the confidence of our clients due to consistent professional passion, integrity, and responsiveness. Our goal is to solve your program and project challenges with our unmatched level of enthusiasm and commitment to high-quality service within the required budgetary and schedule requirements.

Core Services

- Automation Control System Design
- Monitor System Design
- Human Interface Design
- Vision Inspection
- Electrical Installation Management
- IoT Programming
- Quality Assurance/Quality Control Services
- Technical reviews of RFPs
- Electric Drawings and contract documents

Phone: +1 419 322 6651 Email: <u>Sales@AllSolutionsnetworks.com</u> Web: www.allsolutionsus.com

Past Performance

Countries

- United States
- China
- Canada
- Portugal
- Netherlands
- Korea
- Italy
- Germany
- France
- Malaysia
- Vietnam

Companies

- Owens Corning Inc.
- China Fuyao Glass Inc.
- Fuyao America Glass Inc.
- Shandong Jinjing Solar Glass Inc.
- Beijing Jinjing Solar Glass Inc.
- Hainan special Glass Inc.
- Owens Illinoi Inc.
- Xinyi Glass China Inc.
- Libbey Glass Inc
- Dart Container
- SEA Inc. Korea
- Bürkle Gmbh Germany
- Ledinova Gmbh Germany
- PPG

Differentiators

As a small, minority owned firm we have low overhead, and so can provide professional services at a reasonable rate. But quality will not be sacrificed- our engineers have worked at regional and national sized firms, and will ensure the All Solutions' work product meets or exceeds all expected standards.

All Solutions' president Mr. Yu has experience managing up to 100 people and multi-million dollars projects.



Phone: +1 419 322 6651
Email: Sales@AllSolutionsnetworks.com
Web: www.allsolutionsus.com

Projects

Float Glass Plant Hot End Control System

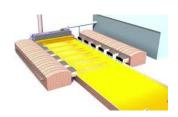
Engineering self-designed, programed and commissioned for a major (\$860,000) 5,500 points in each production line with Melter, Tinbath, Lehr and water system's electrical supervisory control and data acquisition (SCADA) system using Allen Bradly PLC and Wonderware HMI, historian client, Kepware and SQL Server 2012 in glass company and special glass company for three brand new oxygen float glass plant.

Roof Top Shingles Wash System

Design from scratch of roof top shingle process of soup wash system, which include flow volume control, PID heating system, motion detection with continue process application, agitator mixing, density control and level monitor.

High Speed Glass Bottle Blow Molding Control System

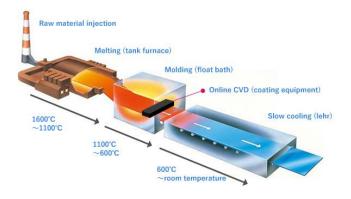
Design and implement the glass bottle blow molding with high-speed motion monitoring control system. Involve with design mounding air flow monitor and mold flow quality evaluation.





CVD Online Coating Control and Historical Data Collection System

Engineering designed, programed and commissioned with 3,500 points, float glass production line's CVD coating system. With supervisory control and data acquisition (SCADA) system using PLC and HMI, historian client, and SQL Server system to monitor coating process and record processing data.







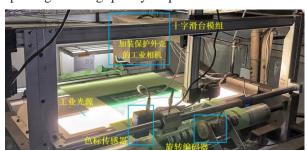
Phone: +1 419 322 6651
Email: Sales@AllSolutionsnetworks.com
Web: www.allsolutionsus.com

Vision Quality Inspection System QR code Inspection

Based on basic image processing and machine vision technology instead of manual detection of continuous production links (such as winding system) and discrete production links (such as express outer packaging, cigarette box outer packaging) product outer packaging two-dimensional code/bar code detection, identification of missing code, wrong code, heavy code and alarm to assist workers to check the cause of error.

Design and produced vision quality inspection system, the system has capability to use vision scanning and finding defect. The system was implemented in Chinese Tabaco manufacture with package quality inspection.

We also designed a vision inspection system with color comparison capability. The system was installed in Chinese food production company for package sealing quality inspection.



Camera Environment Fixed blue background Monocular visible light camera Camera vision C Descriptive Statistics Total Number (Duck) 50 Total Images 7500 Maximum 3.45 kg Minimum 2.10 kg Median 2.725 kg Median 2.725 kg Weight (kg) Weight (kg) Weight (kg) Range 1.35 kg

Vision No Contact Production Weighting System

Industrial cameras were used to record the ducks (non-live) moving on the production line, and non-contact automatic weighing was carried out to estimate the weight of the animal. Convolutional neural network (CNN) was used to model the images in the collected data set to accurately estimate the weight of the product.

The system was installed in Chinese meat process factory for non-contact weighting system.

Vision Defect Inspection System

Based on deep learning technology, the image data set (including normal samples and defect samples) is trained to obtain a network model with certain accuracy and speed.

We worked with different manufactures such as cable, knit, nest, screw, and medical manufacture companies to implement the system.

