



Industry Notification - Robot Industry

Delta Cartesian Robot Coating Solution

IABG Global Solution Center
Mar., 2022

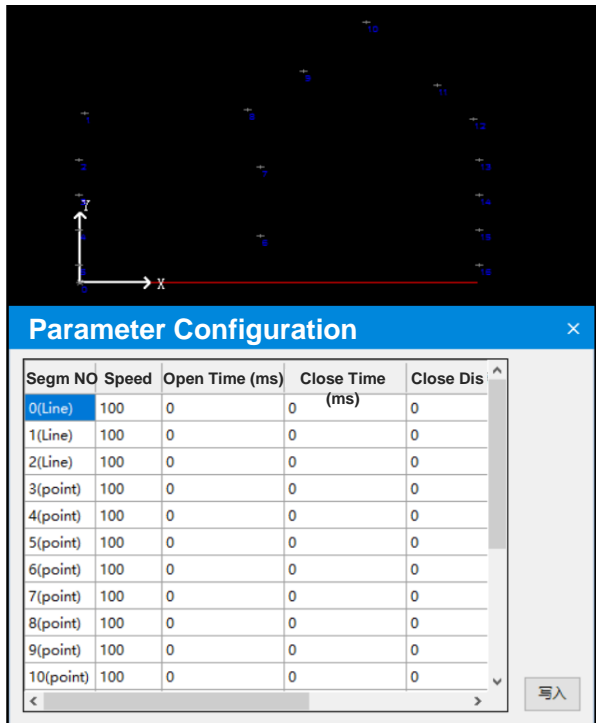
Cartesian Robot Coating Solution

Introduction

This solution utilizes integrated drive-control system MS as the core electronic control component, combined with robot body developed by customer to form a 3-axis Cartesian coating robot. The conveyor line delivers material to workpiece to be coated; the IPC analyzes workpiece files to generate processing path files; MS runs along the belt to feed workpieces, dispensing and coating at the same time.

Application:

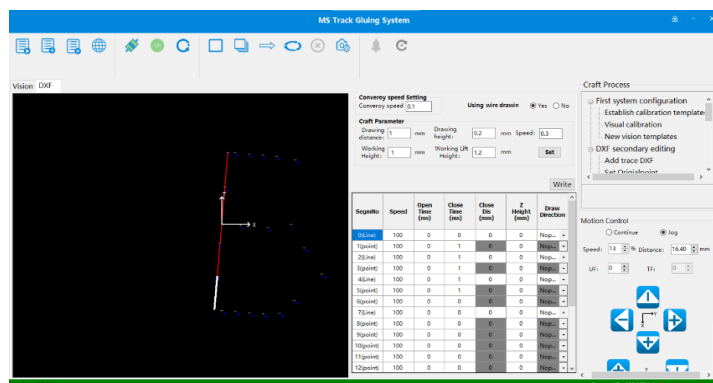
Breathing apparatus, toy, woodworking and electric iron industry.



Gluing track & secondary treatment of track

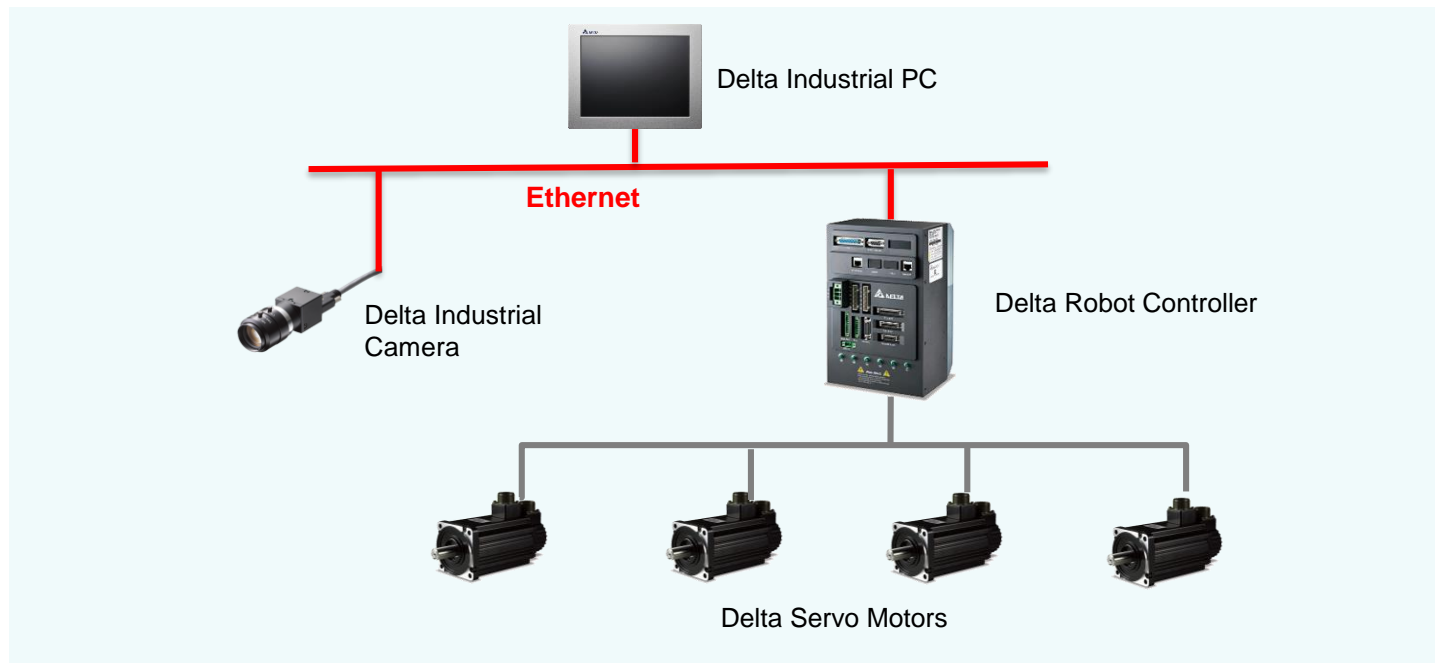
Process

1. The executive end develops coating robot process solutions based on LUA language. The host develops industry-specific interface based on C# for all commissioning serial ports for model switching from the host, DXF point and line edit function setting, glue open and close delay setting, as well as drawing height and distance setting, providing complete solutions.
2. Support DXF file analysis: the IPC loads DXF files, edits points and lines via industry-specific interface to generate path files (with a distance of 0.5mm between points), and finally saves files in the controller at the executive end automatically.
3. Support secondary processing of path and offer a guided operation interface. User can split the processing path and set coating parameters for each segment (e.g., glue open and close delay time, drawing process settings and more) in the software as required.
4. It offers 2 ways to parse workpiece processing path: DXF file import and vision photographing.



Industry-Specific Interface

Solution Architecture



Features and Advantages

Complete Solution

- Offer a complete dispensing and coating system solution with software and hardware for easy replication and promotion.
- Guided dispensing and coating process setup interface for ease of use.
- Support secondary processing of path.
- Support path simulation, allowing process simulation with path after secondary processing in software.
- Support coating path parsing by photographing.
- To switch product, user only needs to switch to the corresponding project and download it.

Integrated Drive-Control System for Easy Wiring

MS controller is designed as an integrated drive-control system:

- Integrated solution for significant cost saving;
- Compact design for easier wiring comparing with bus connection.
- Close to the control kernel for faster communication comparing with bus connection.
- Faster handshake and more accurate dynamic compensation.