



How to Develop Great Electrical Schematics



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Solid Edge Electrical Design

Solid Edge Portfolio



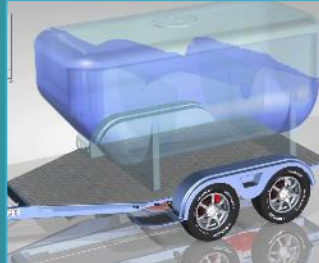
Mechanical
Design



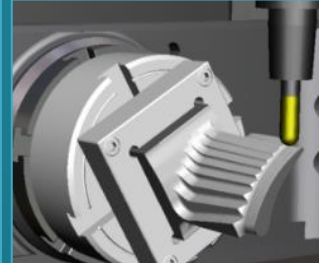
Electrical
Design



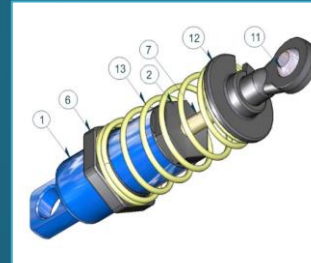
Simulation



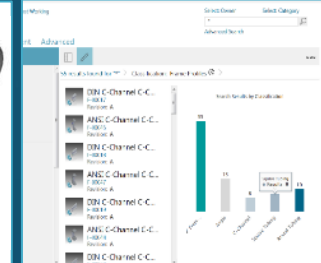
Manufacturing



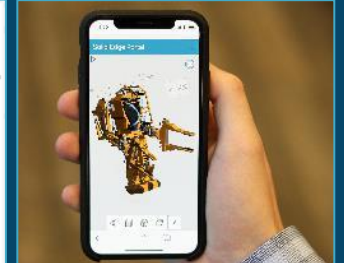
Technical
Publications



Data
Management



Cloud-based
Collaboration



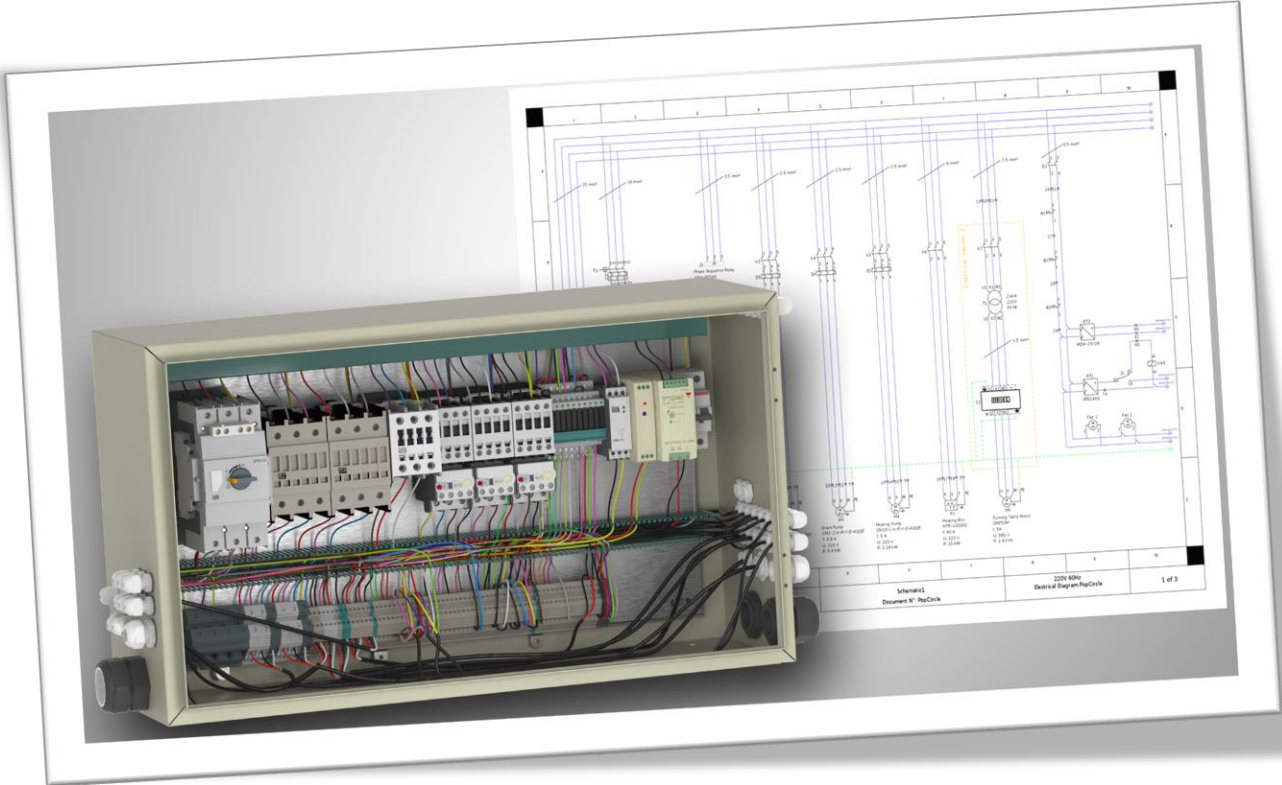
Access the Solid Edge Portfolio and Resources



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Solid Edge Wiring & Harness Design



Electrical
Design



Mechanical
Design

Simulation

Manufacturing

Technical
Publications

Data
Management

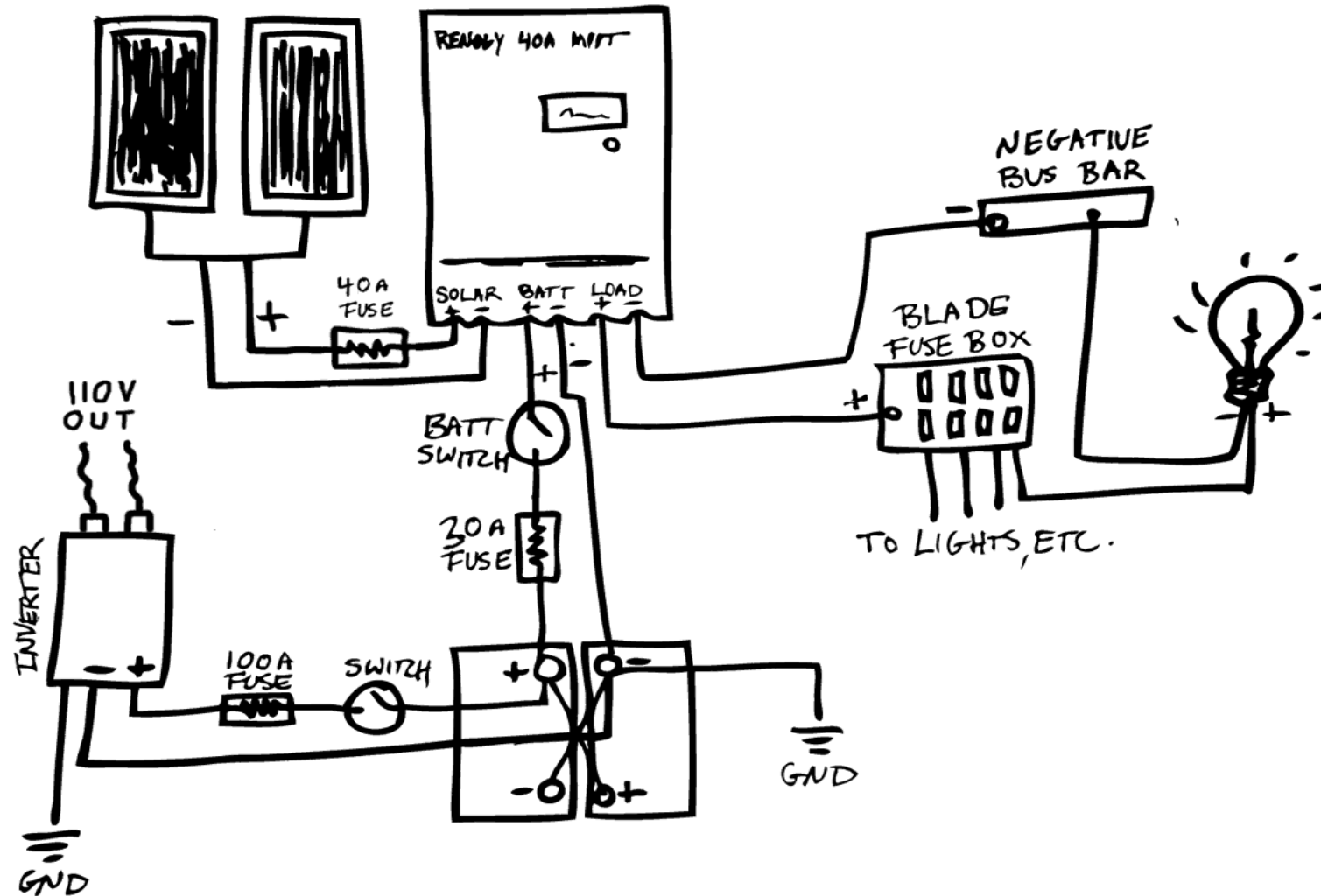
Cloud Based
Collaboration

“Smart Connected” Products

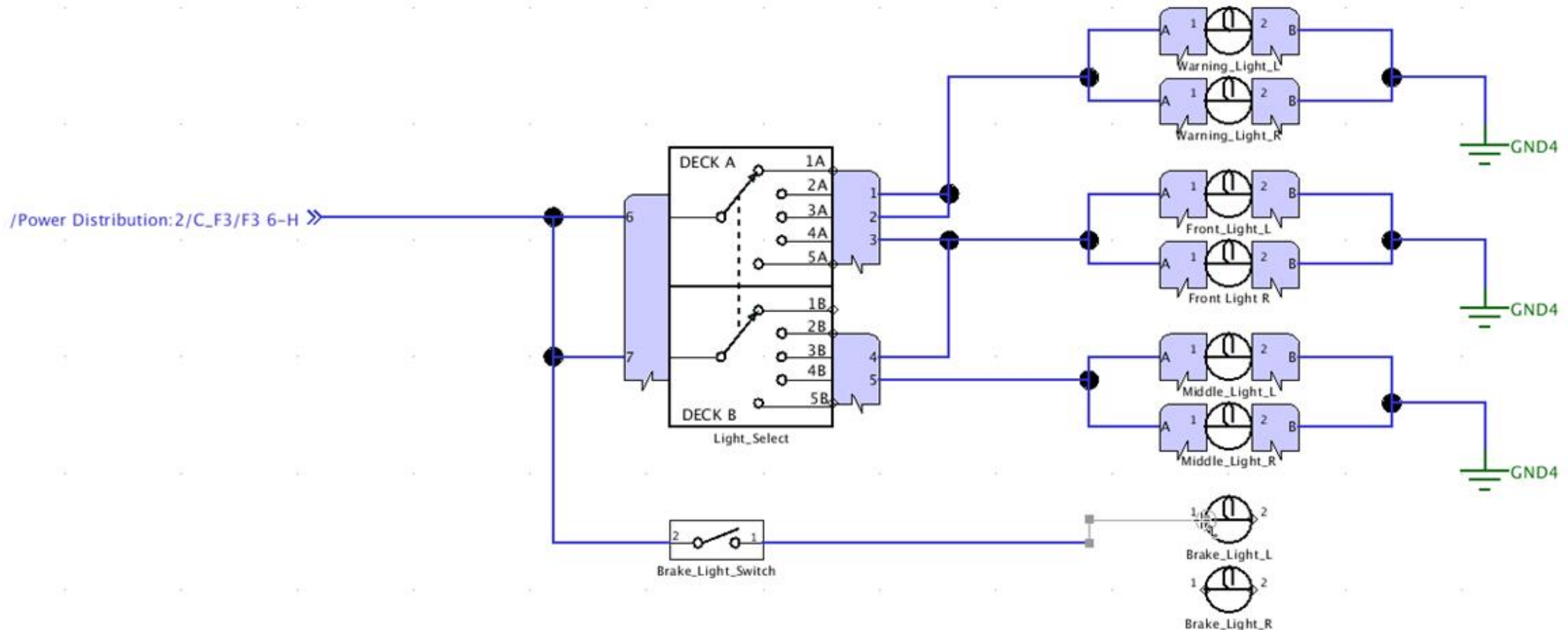
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Non-Intelligent Electrical Schematic



Intelligent Electrical Schematic



Impact of Growing Electrical Content



Cost



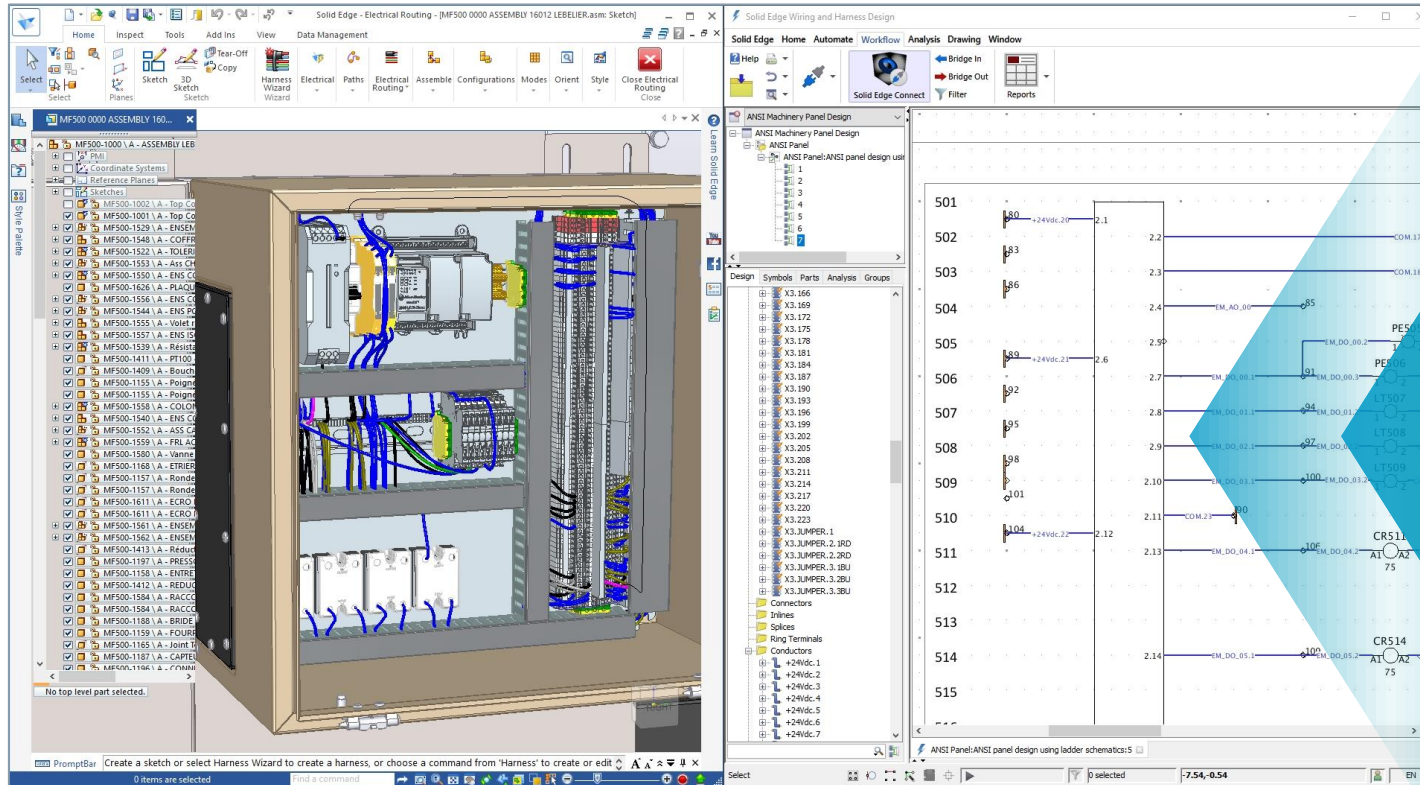
Time



Risk

Solid Edge Wiring Design

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- Intelligent Diagrams
- Electrical Parts Library
- Consistency with Styling
- Design Rule Checks
- Simulation

Creating an Intelligent Electrical Schematic



Analyzing an Intelligent Electrical Schematic

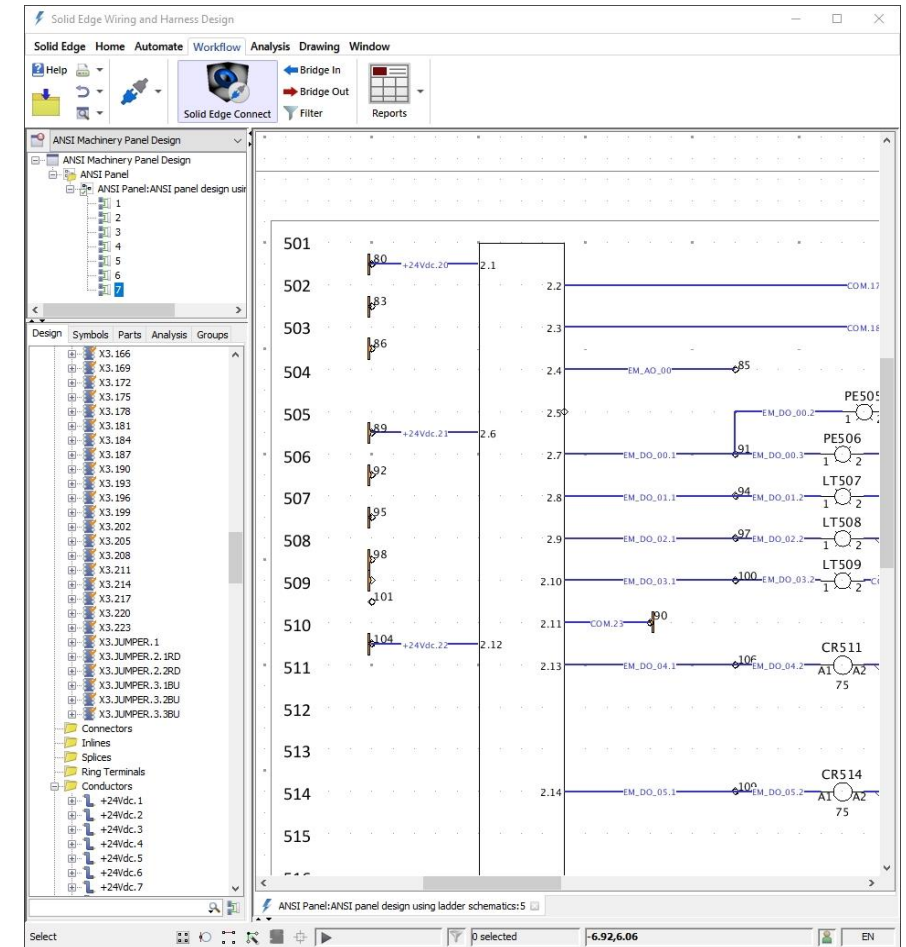
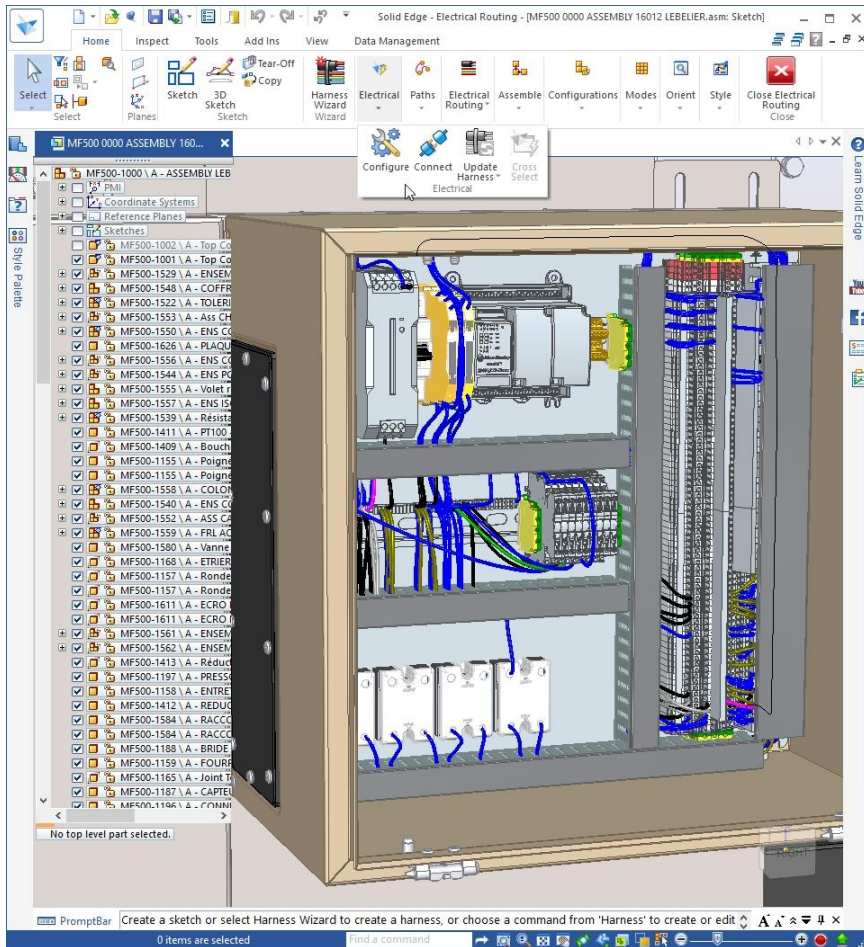


Traditional Approach

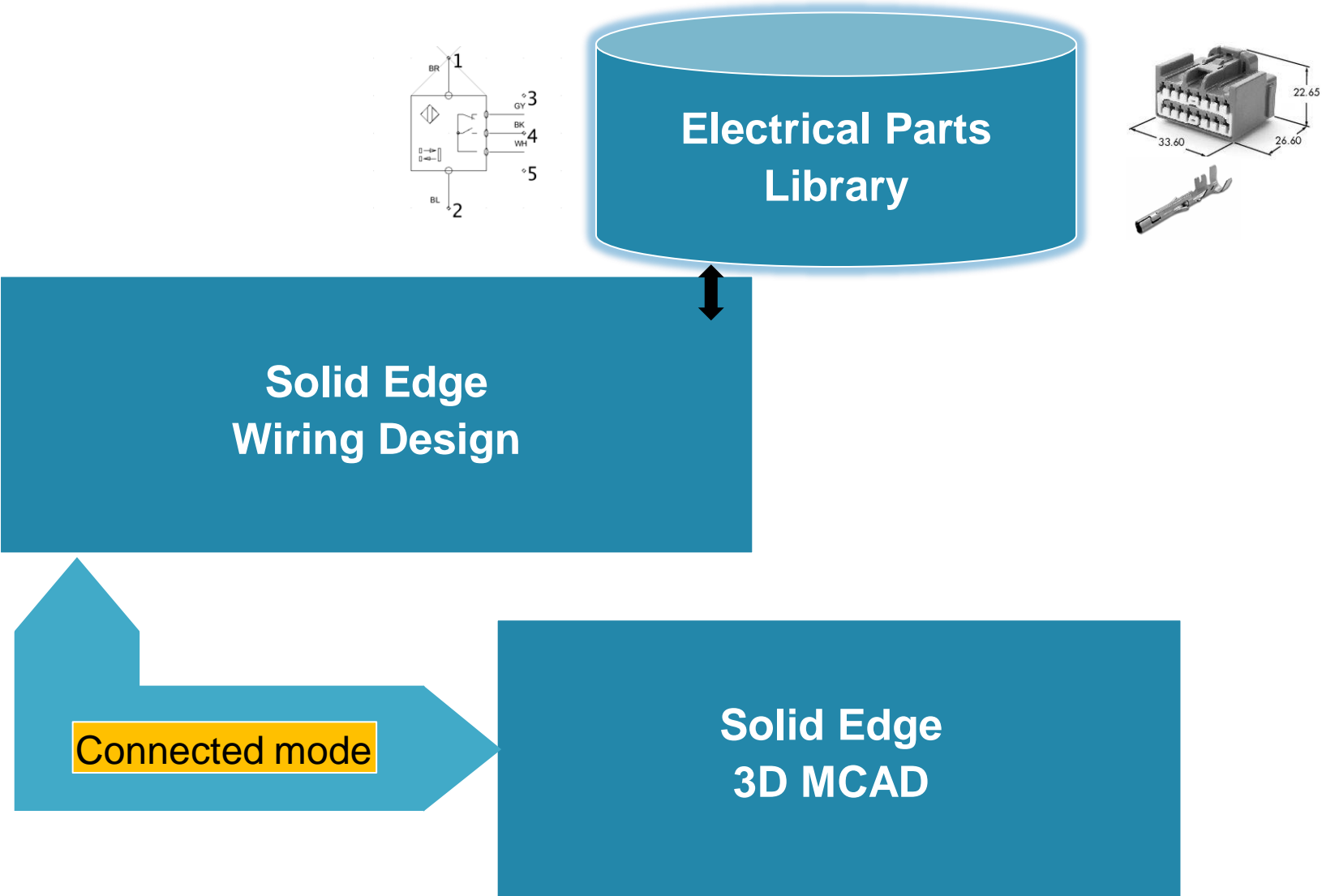


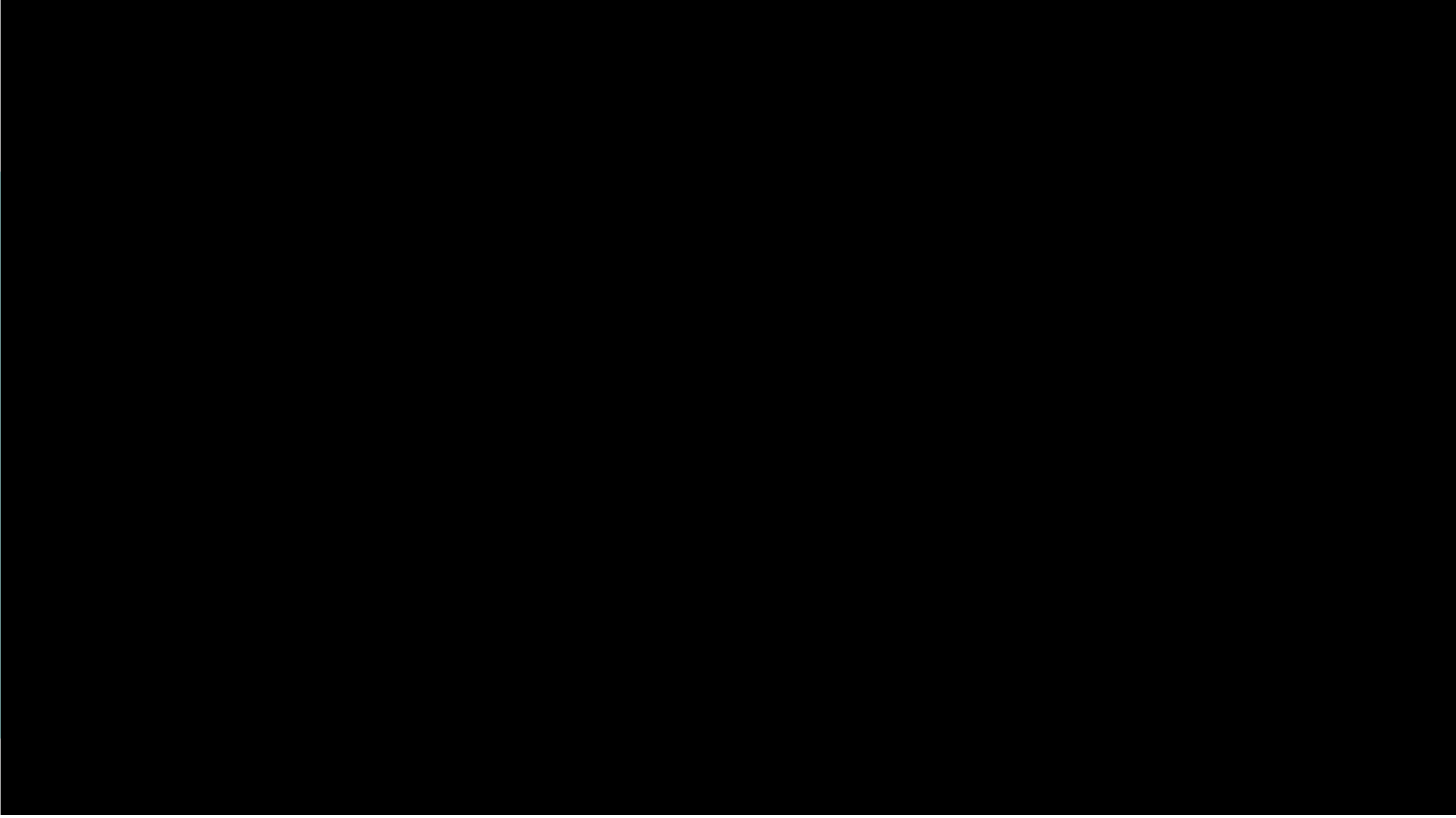
A Better Way

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Data Flow





ECAD/MCAD Collaboration Mechanical

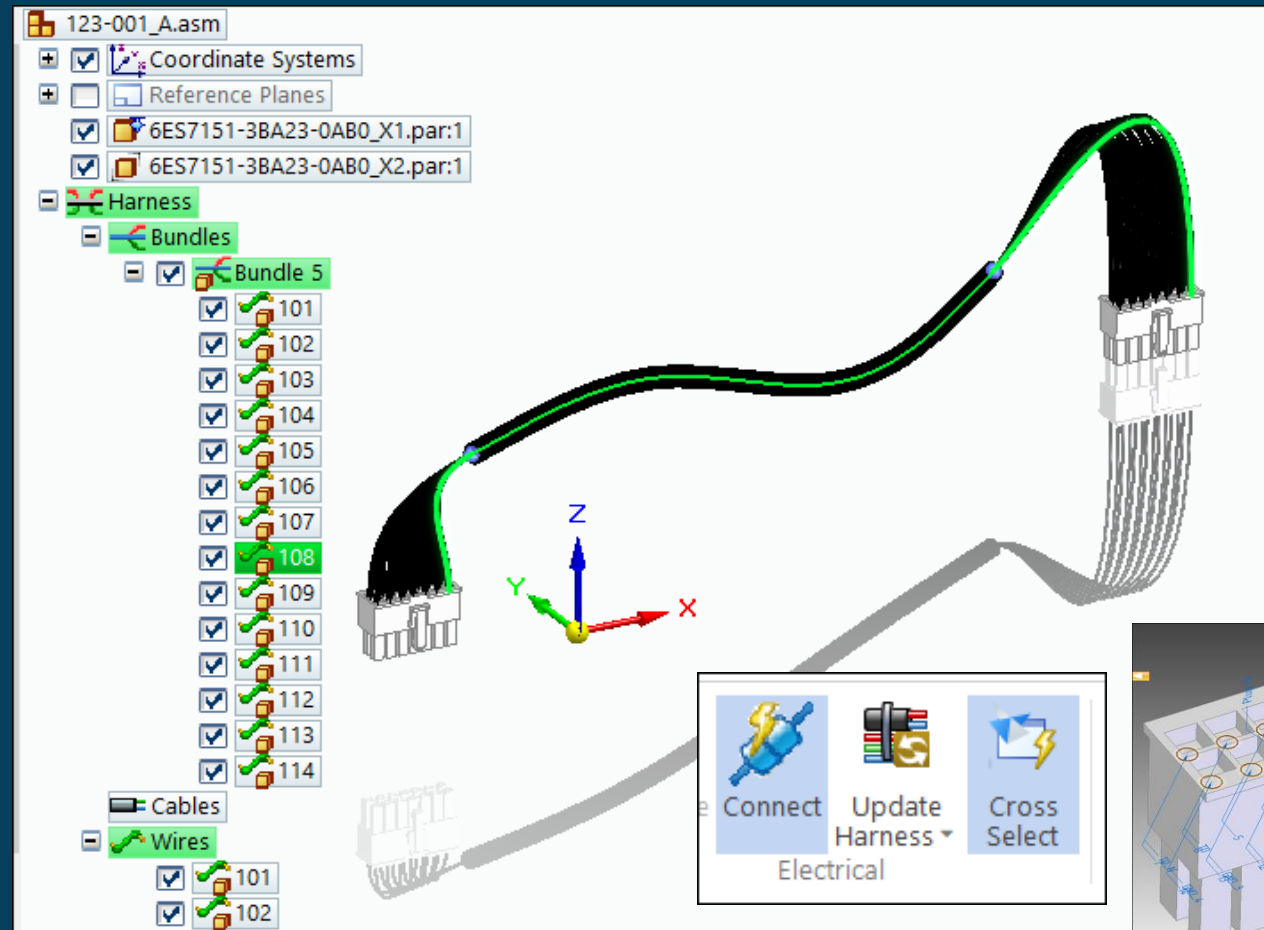


Wires rubbing on mechanical components?

Wires in hot areas of the assembly?

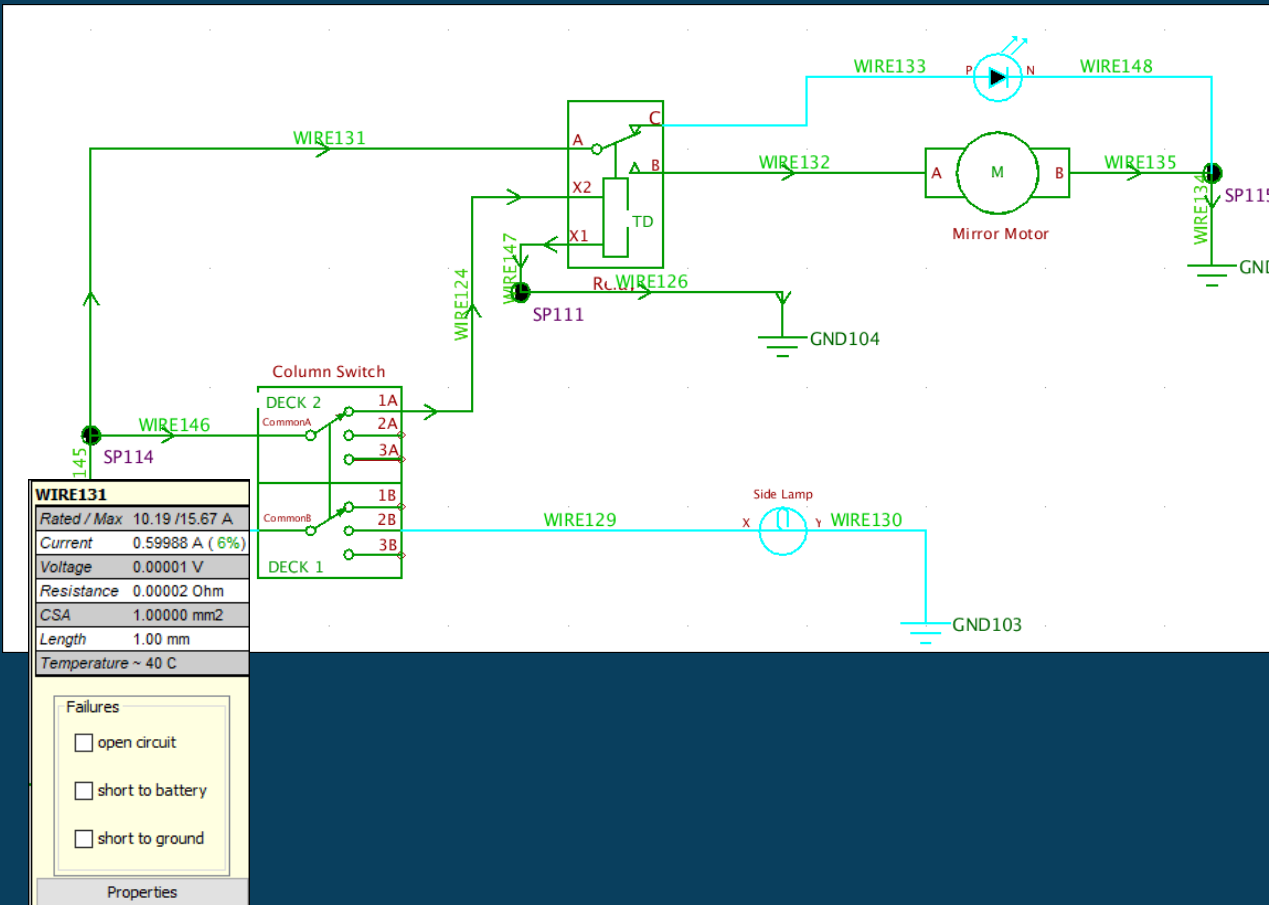
Enough room for the harness?

Solid Edge 2021
Wiring and Harness Design



ECAD/MCAD Collaboration

Simulation & Design Rule Checks



Do the signal wires have enough strength?

Are the wire diameters sized properly?

Are the fuses the proper size?

Solid Edge 2021
Wiring and Harness Design

VeSys 2.0

Home Automate Workflow Analysis Drawing Window Selection

Help New

Device Wire Connector Highway Slice Move Splice Multicore Ring Term Assembly Join Merge Pin Overbraid Shield Add Sector Styles

VeSys_Tractor

VeSys_Tractor

Primary Harness

Wiring

Instrumentation

Lighting

Power Distribution

PTO

Design Symbols Parts Analysis Audit Report Groups

Wiring

Devices

Connectors

Inlines

Splices

Ring Terminals

Conductors

Multicores

Overbraids

Highways

Assemblies

Power Distribution: 2/C_F3/F3 6-H

DECK A

1A

2A

3A

4A

5A

DECK B

1B

2B

3B

4B

5B

Light_Select

Brake_Light_Switch

Warning_Light_L

Warning_Light_R

Front_Light_L

Front_Light_R

Middle_Light_L

Middle_Light_R

Brake_Light_L

Brake_Light_R

GND4

Wiring:Lighting

Search here

Position 1 = Off

Position 2 = Warning Lights

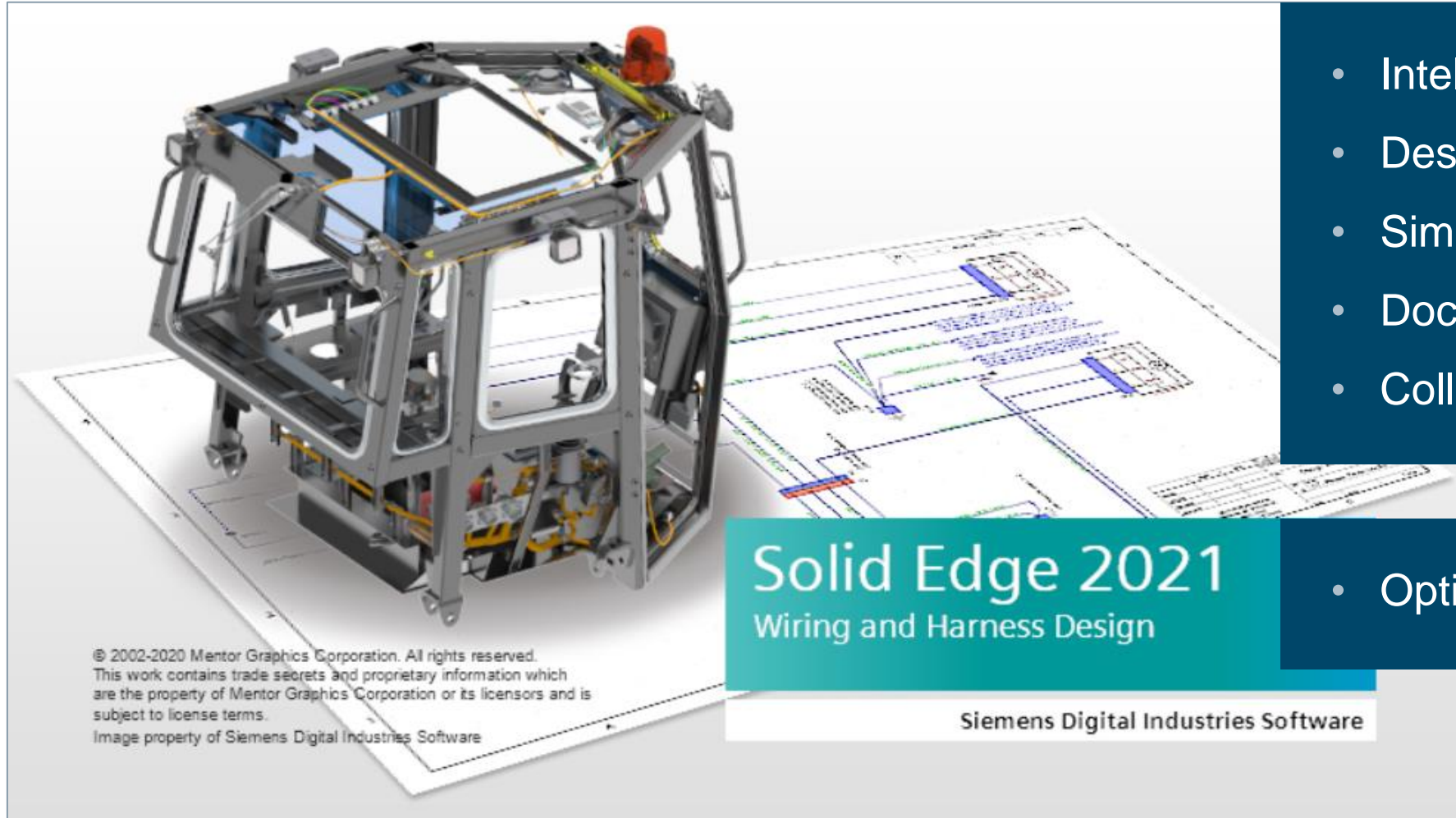
Position 3 = Warning Lights + Front Lights

Position 4 = Front Lights + Middle Lights

VeSys 2.0 Comments Notes

1 selected -4.04,0.25 EN

Summary



- Intelligent Diagrams
- Design Rule Checking
- Simulation
- Documentation
- Collaboration

- Optimization

Solid Edge Academic Portfolio of Products

Mechanical Design



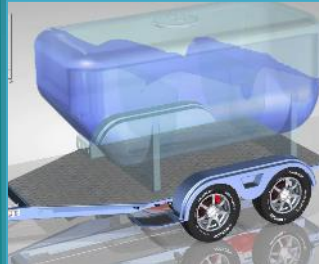
- Solid Edge Premium
- Solid Edge Classic
- Solid Edge Foundation
- Solid Edge Design & Drafting
- Solid Edge 2D Drafting
- Solid Edge P&ID Design
- Solid Edge Piping Design
- Solid Edge Generative Design Pro
- Solid Edge Model Based Definition

Electrical Design



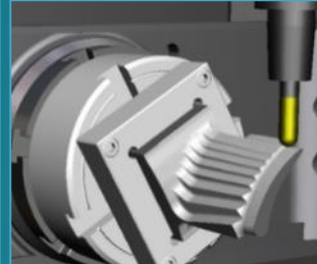
- Solid Edge Electrical Routing
- Solid Edge Wiring Design
- Solid Edge Harness Design
- Solid Edge PCB Collaboration

Simulation



- Solid Edge Premium
- Solid Edge Simulation - Standard
- Solid Edge Simulation - Advanced
- Simcenter FLOEFD for Solid Edge

Manufacturing



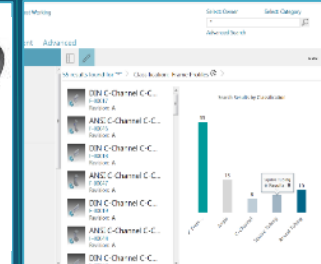
- Solid Edge CAM Pro Foundation
- Solid Edge CAM Pro Total Machining
- Solid Edge CAM Pro 5 Axis Milling
- Solid Edge 2D Nesting

Technical Publications



- Solid Edge Illustrations
- Solid Edge 3D Publishing

Data Management



- Solid Edge data management
- Solid Edge Requirements Management
- Solid Edge Teamcenter Integration

Cloud Collaboration



- Cloud-based collaboration

Access the Solid Edge Portfolio and Resources



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Thank you.

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