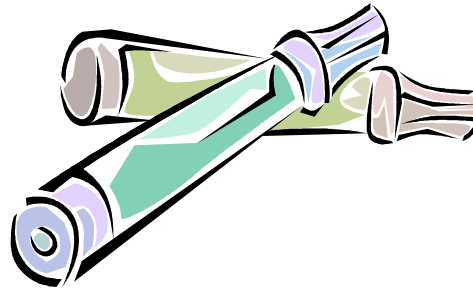


The Future is Digital

But which bus goes where?



Fieldbus
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Topics

- Instrumentation
 - Reducing Footprint and Wiring Even Further
- Smart Discrete Devices
- Flexibility to Handle Changes
- Reducing Device Count
- Eliminating the Last Proprietary Protocols
- Motor controls
- SIS

Instrumentation

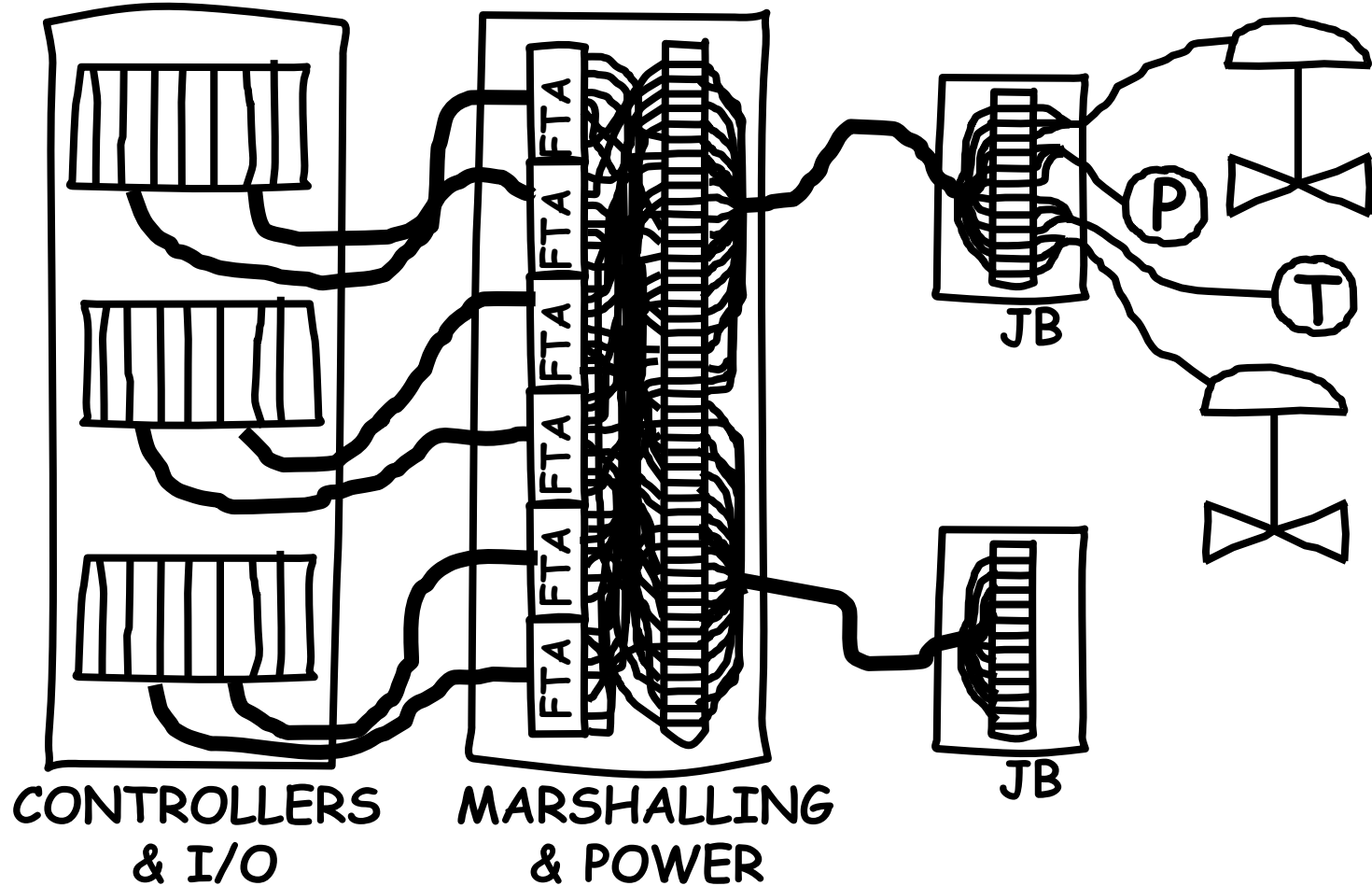
Reducing Footprint and Wiring - Even Further with Integrated Fieldbus Power Supply



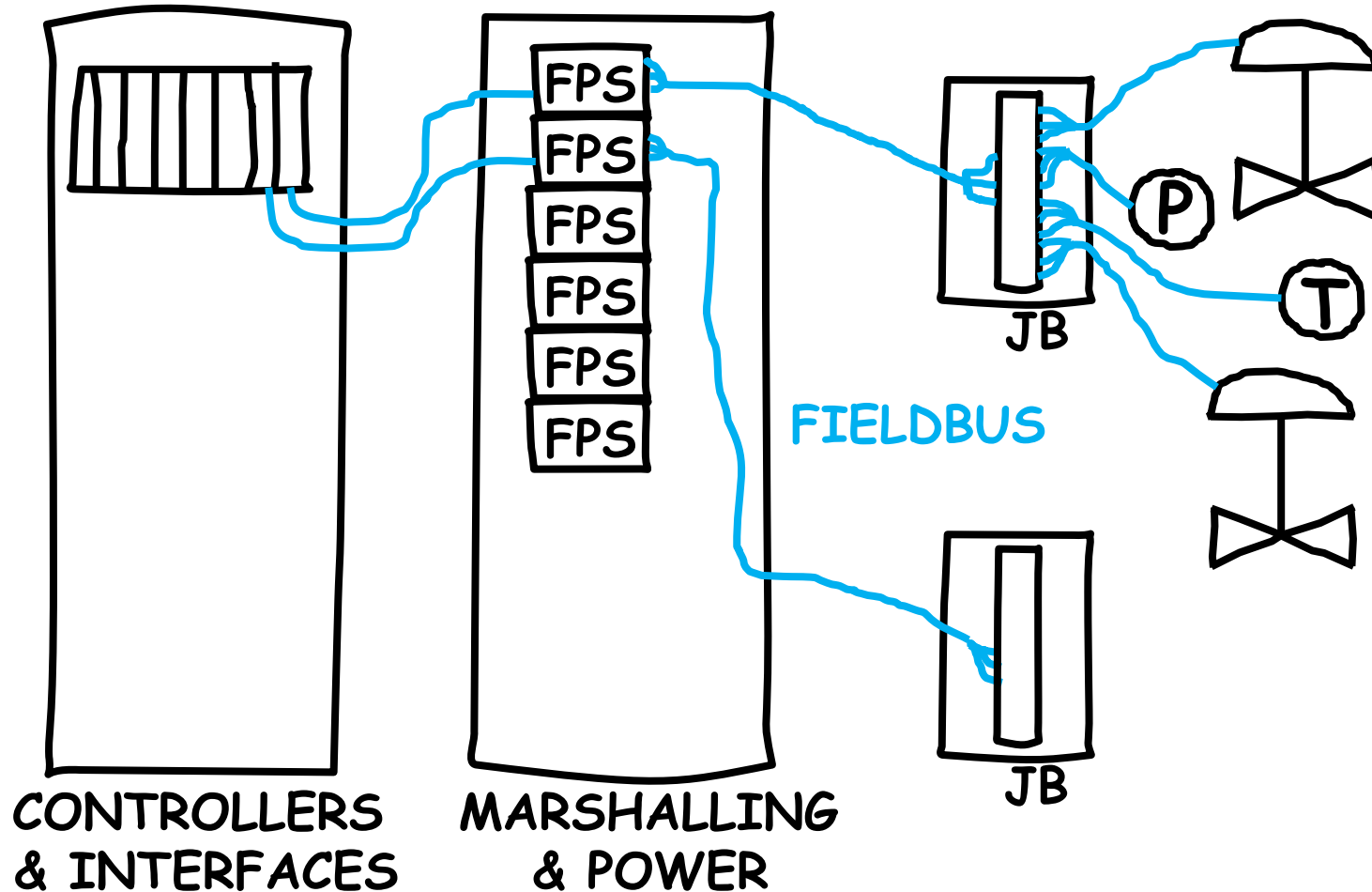
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Hardwired Marshalling

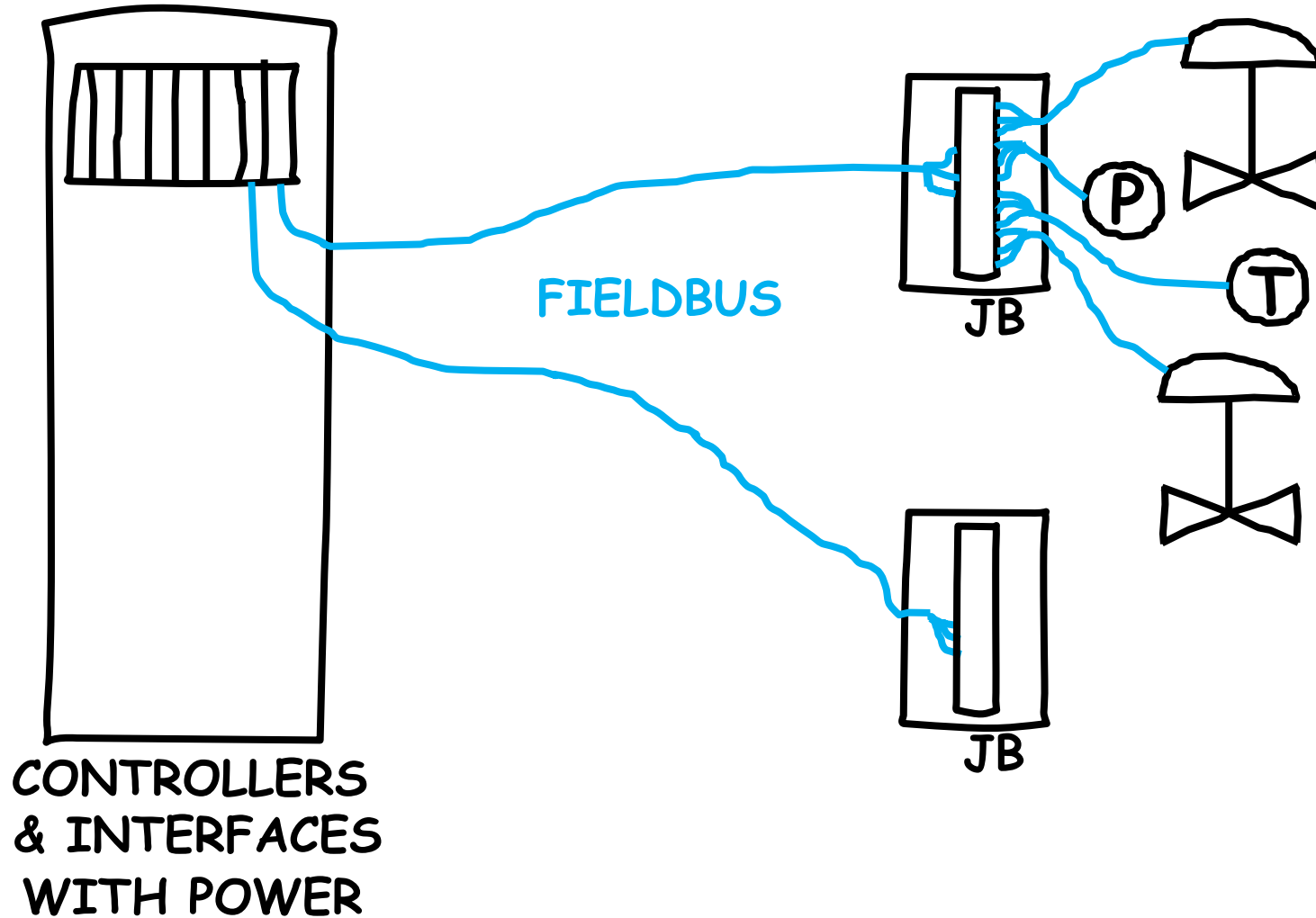
- Well Known, Labor Intensive, Hardware



Fieldbus with Separate Device Power Supply - Now Almost 'Traditional'



Fieldbus with Integral Device Power Supply - No Marshalling Cabinet



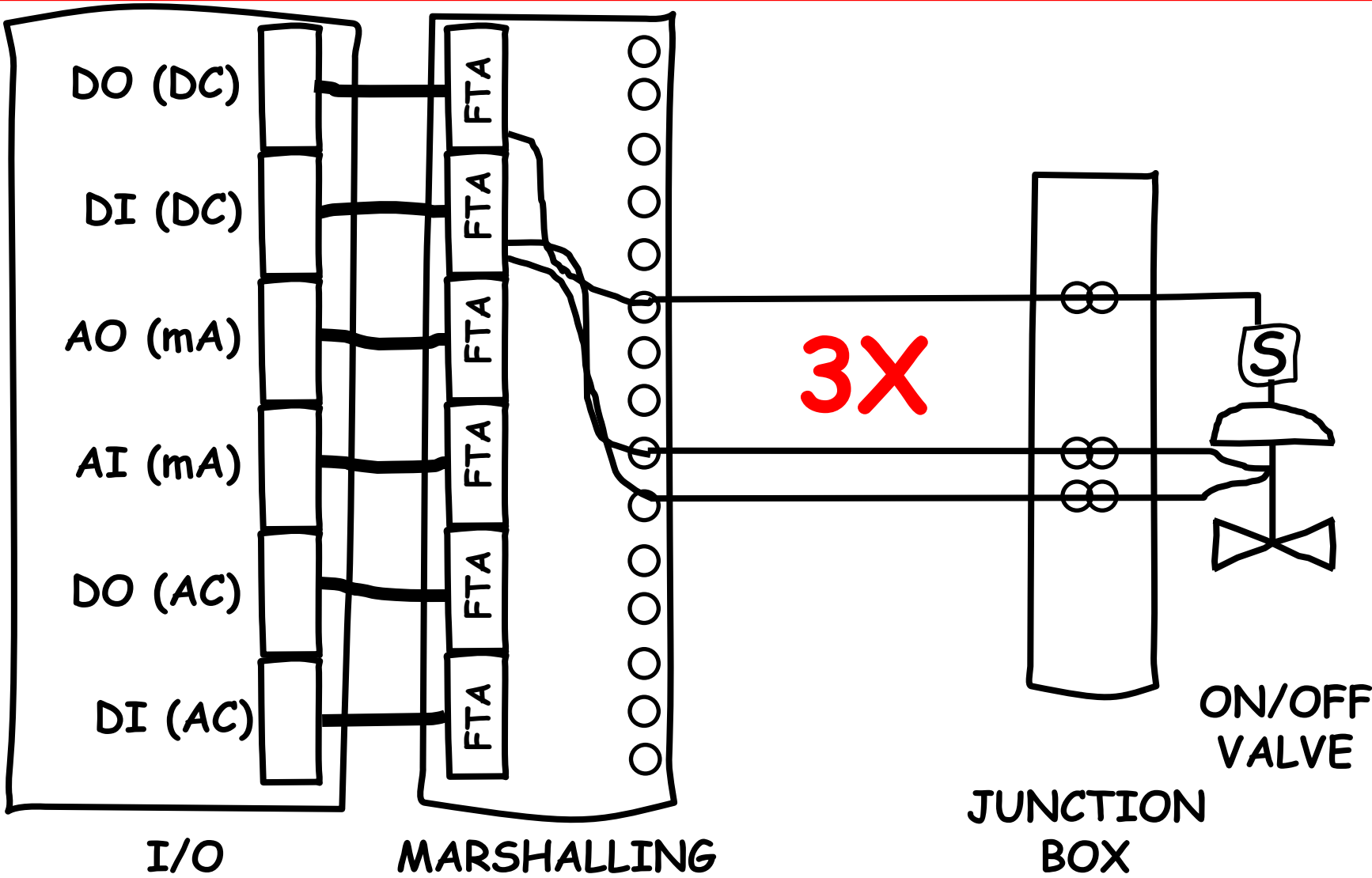
Smart Discrete Devices

Intelligence in on/off devices

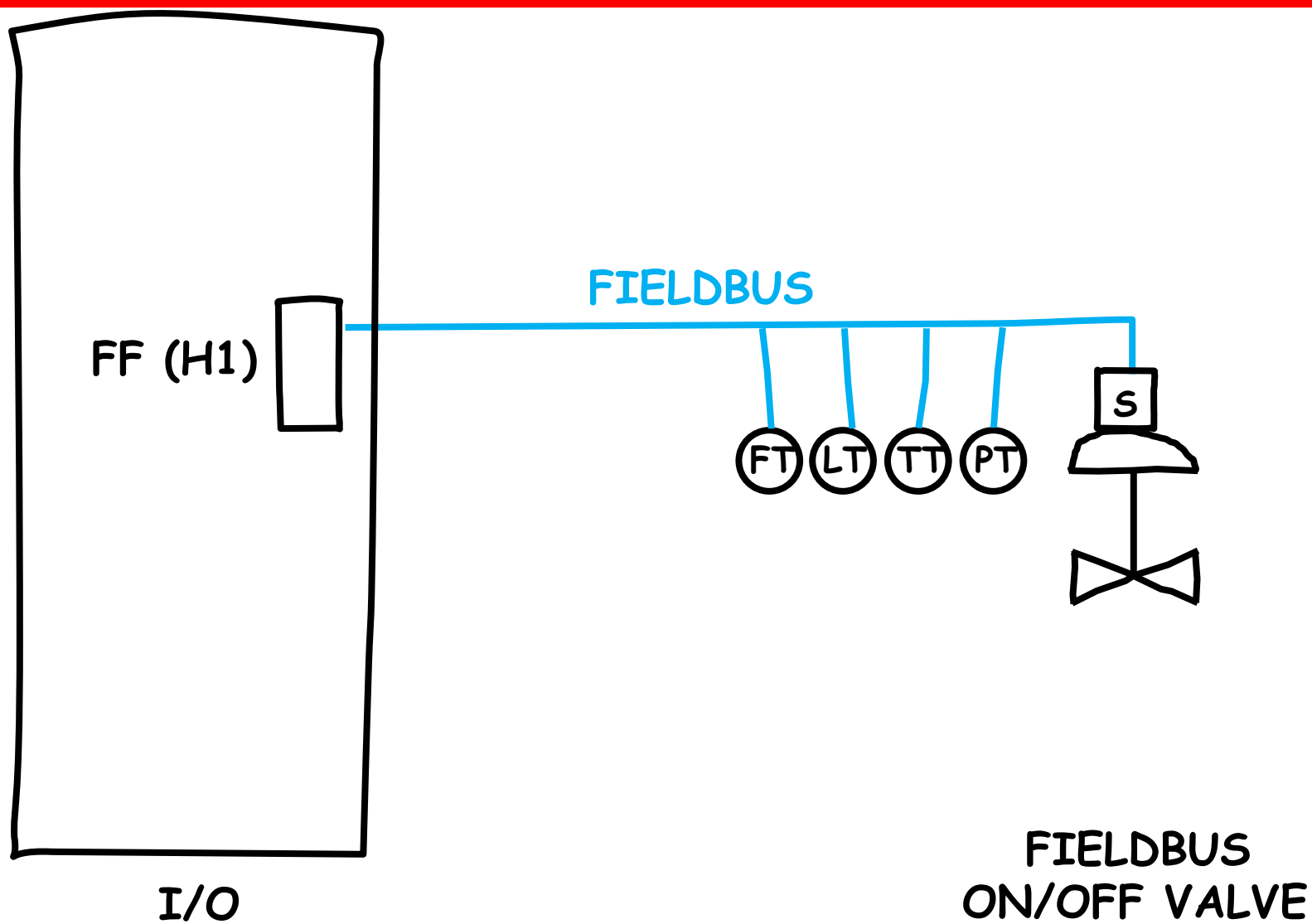


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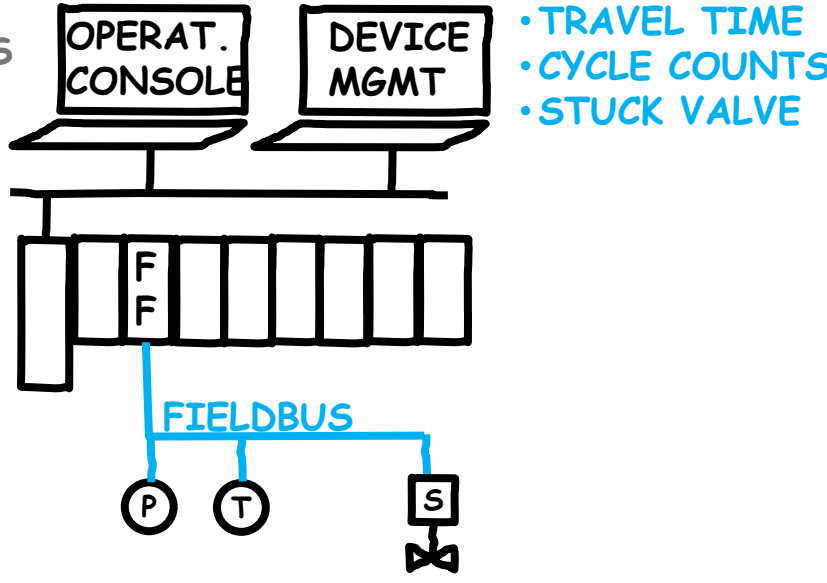
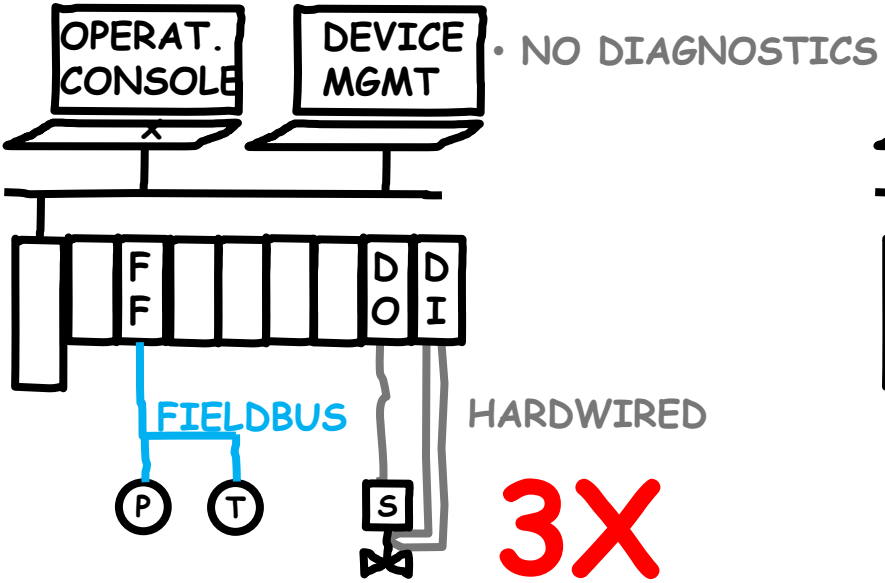
On/Off Valves - Hardwired



Intelligent On/Off Valves - Fieldbus



On/Off Valve Intelligent Device Management: Diagnostics & Setup



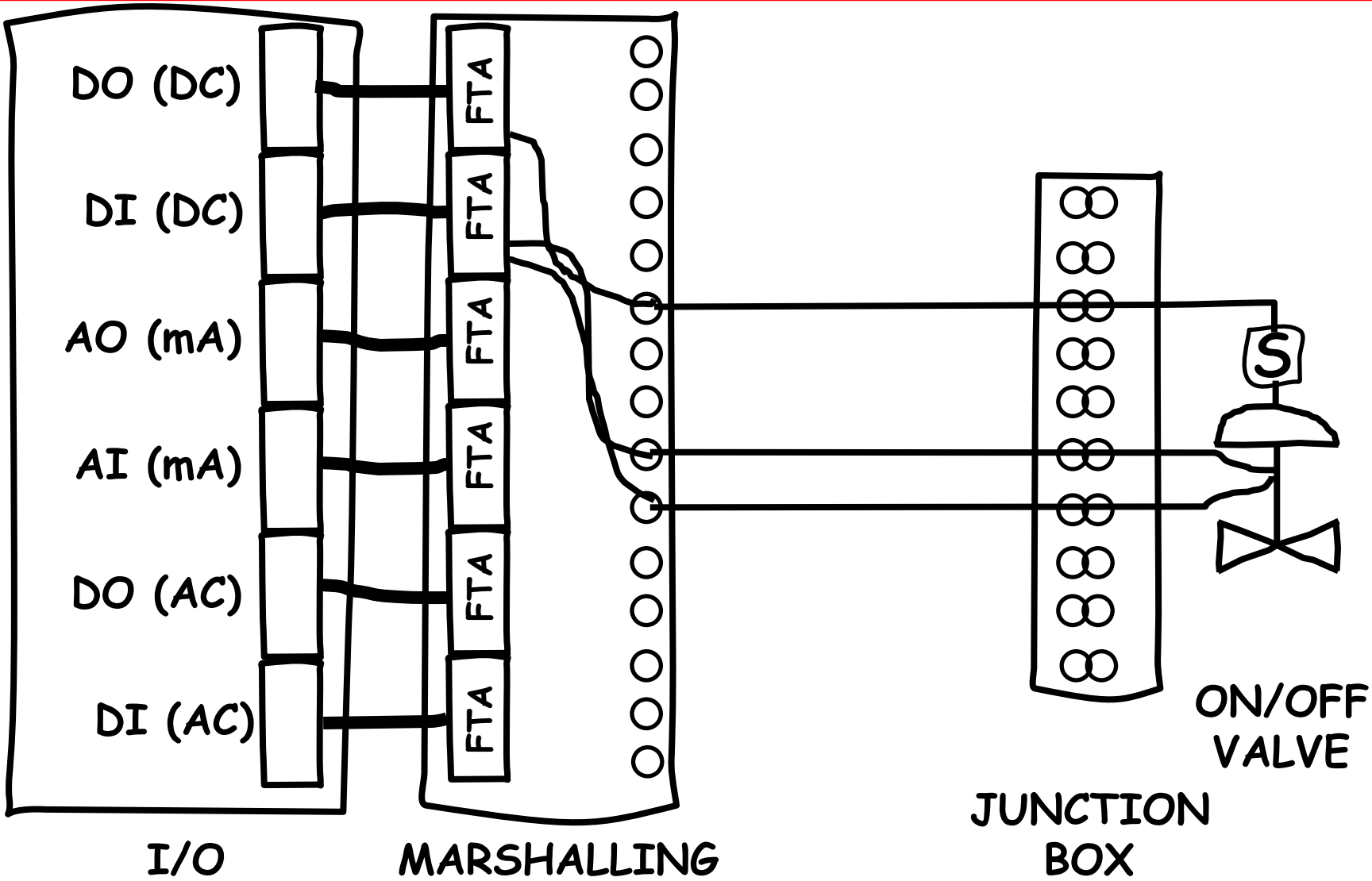
Flexibility to Handle Changes

Virtual Marshalling



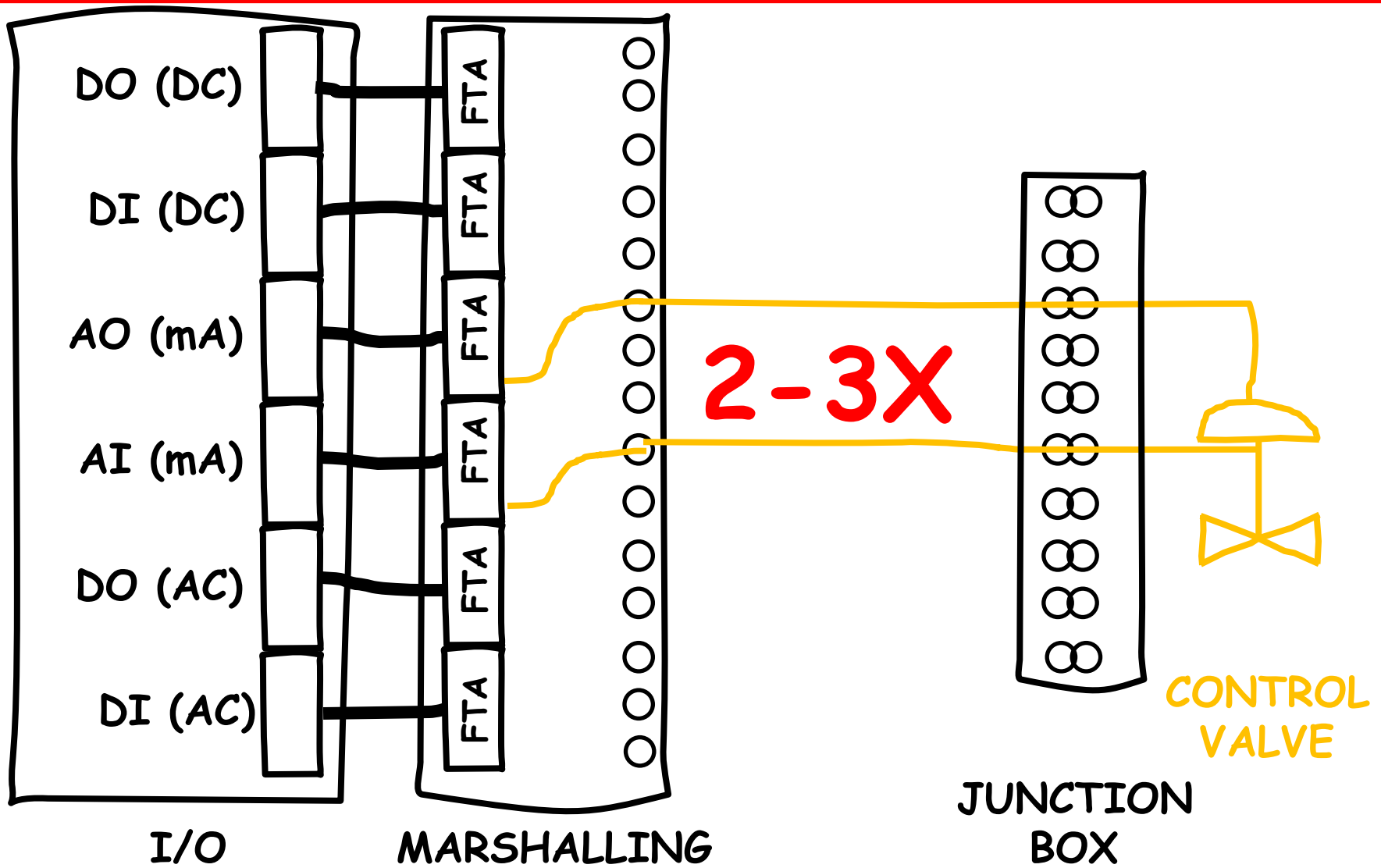
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Hardwired Marshalling - On/Off Valve



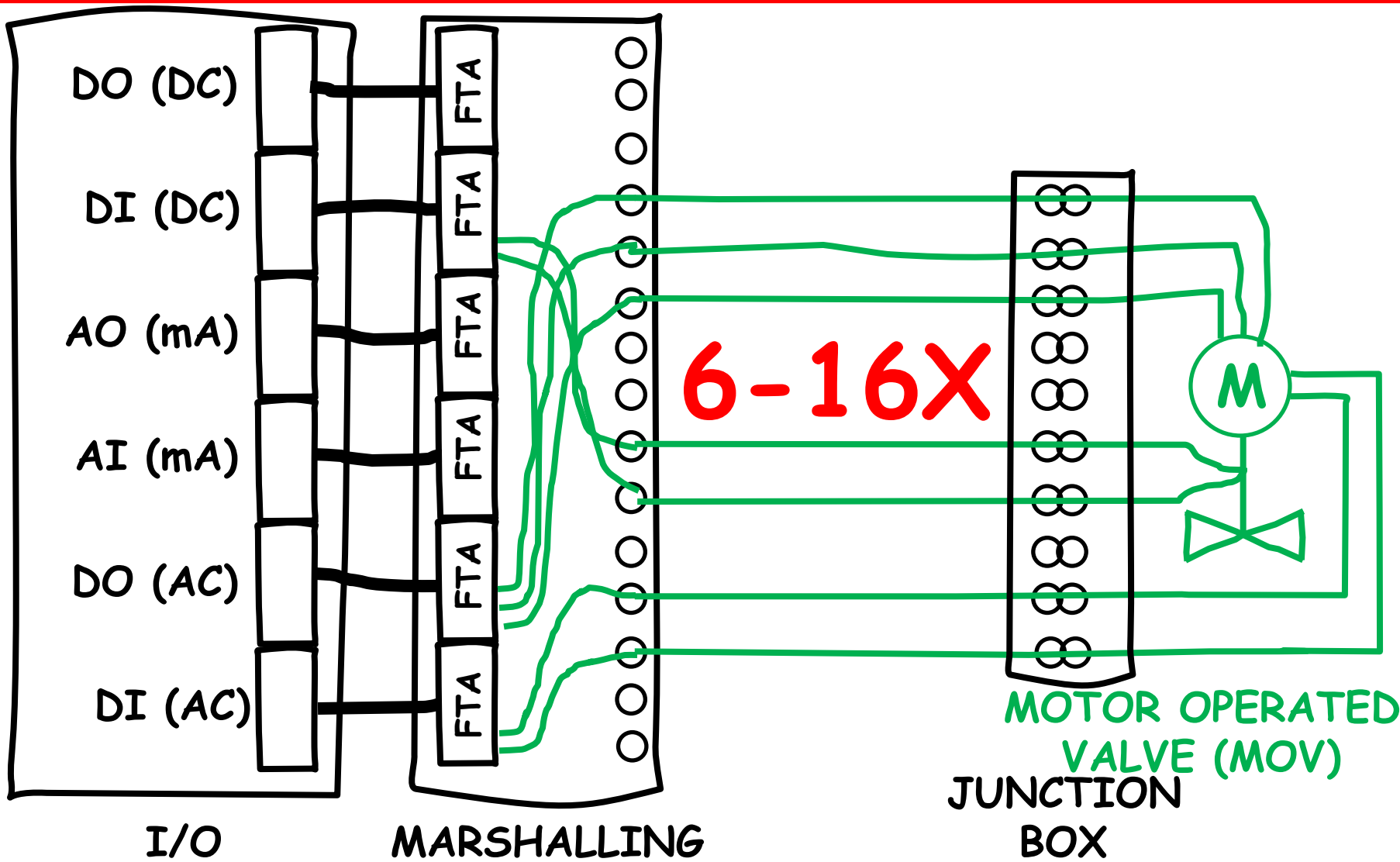
Hardwired Marshalling

- Redesign for Control Valve



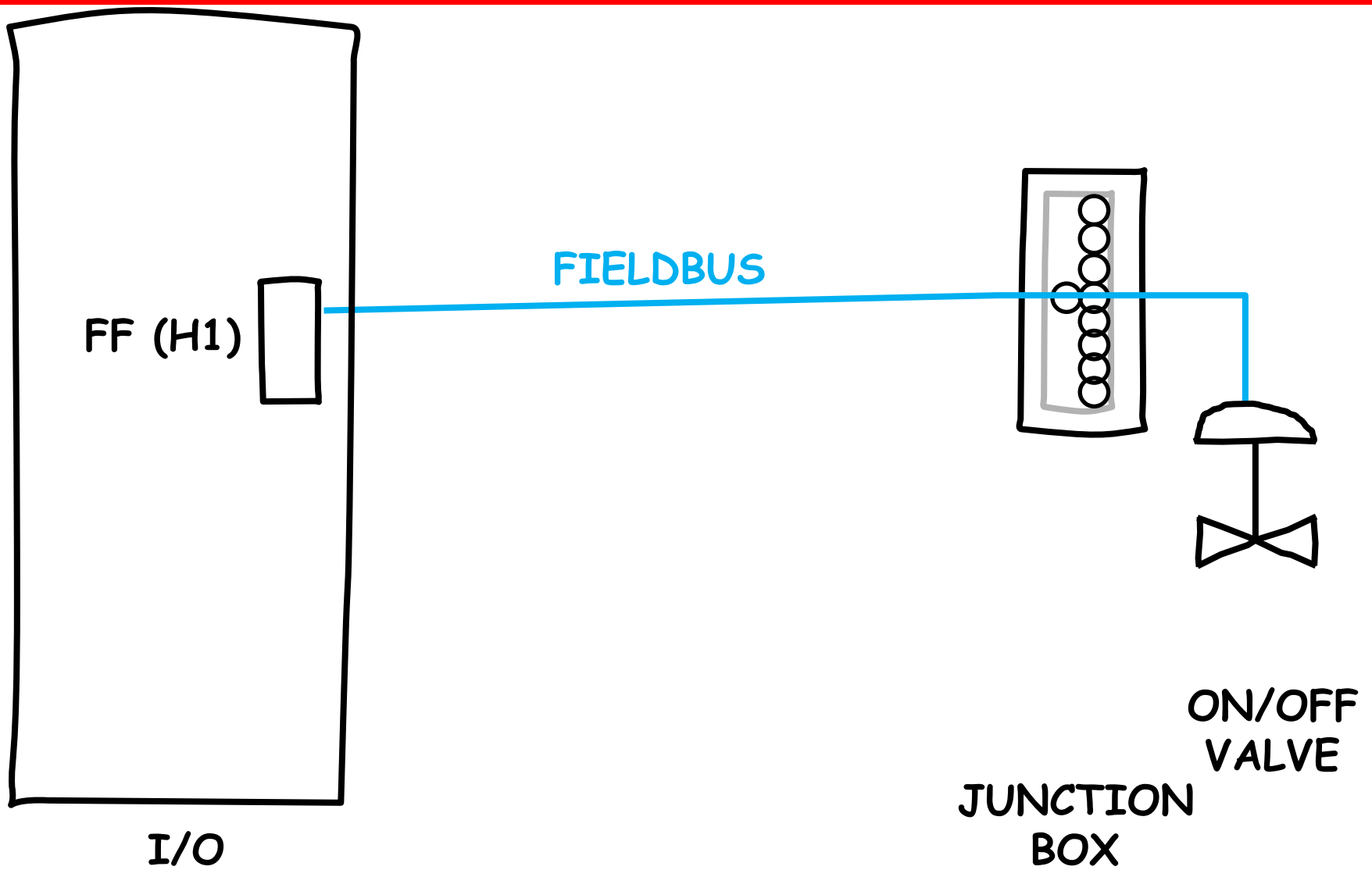
Hardwired Marshalling

- Redesign for Electric Actuator (MOV)



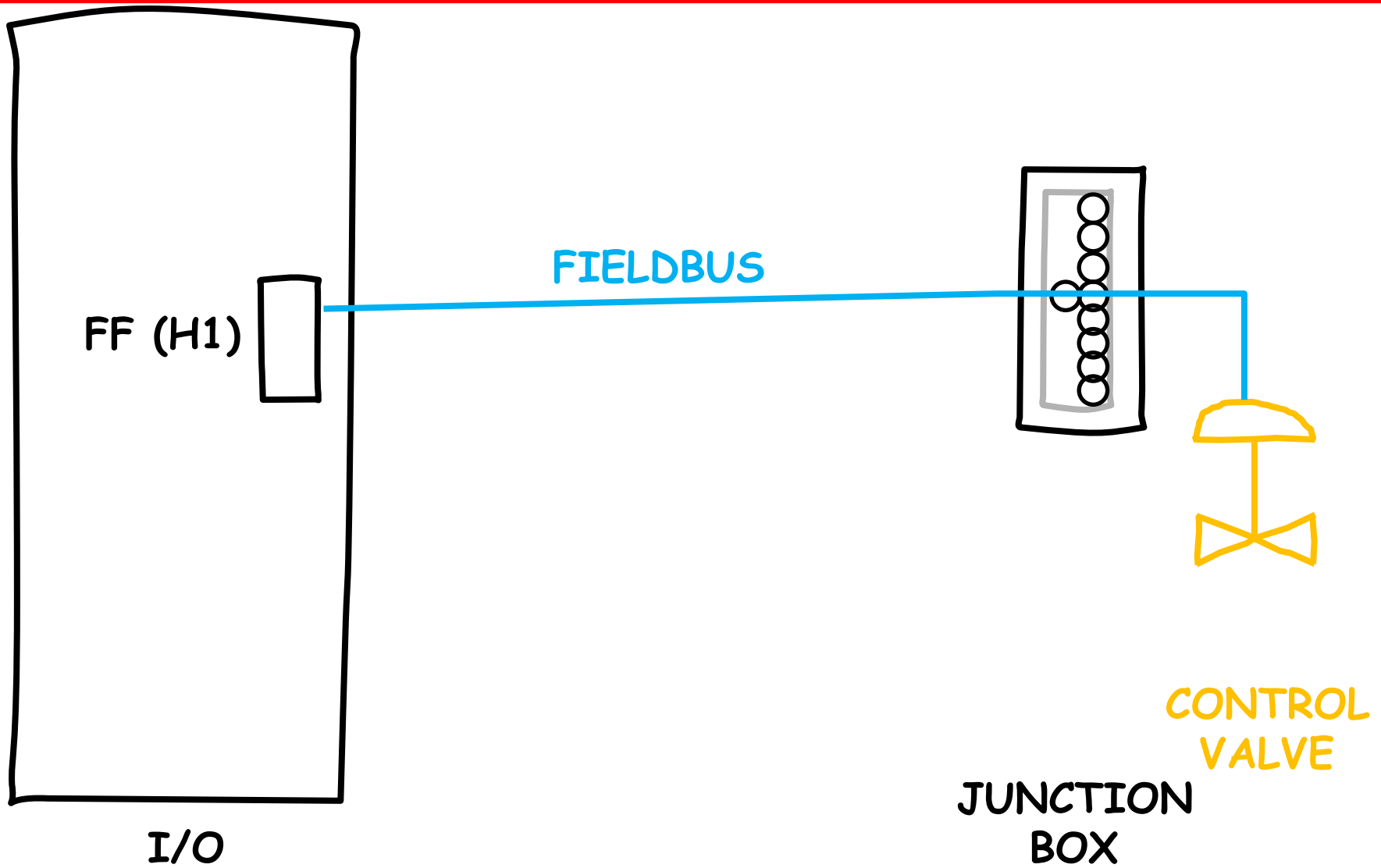
Virtual Marshalling: Flexibility

- For Fieldbus Device Type Doesn't Matter



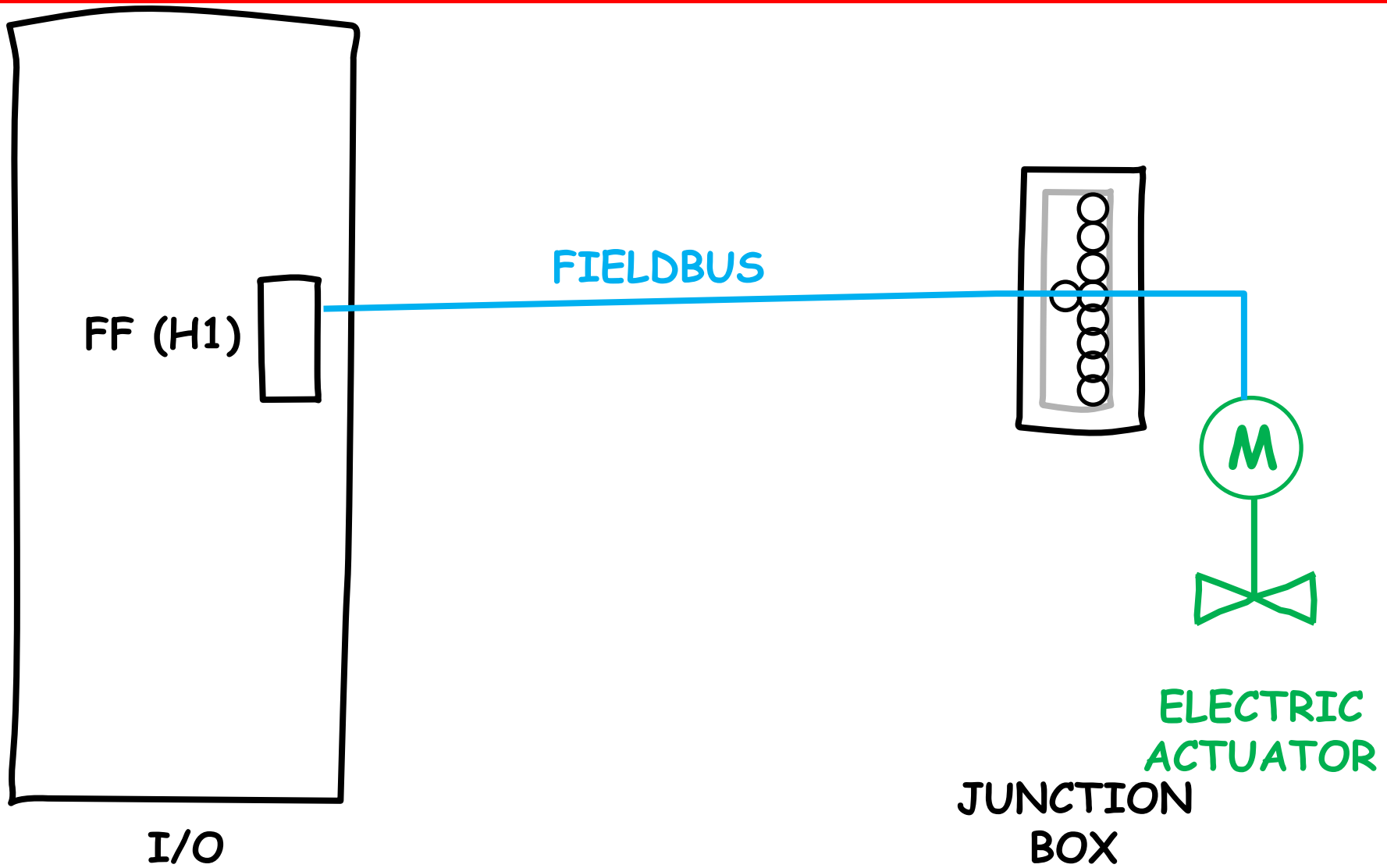
Virtual Marshalling

- No Card Change or Wire Redesign



Virtual Marshalling

- No Card Change or Wire Redesign



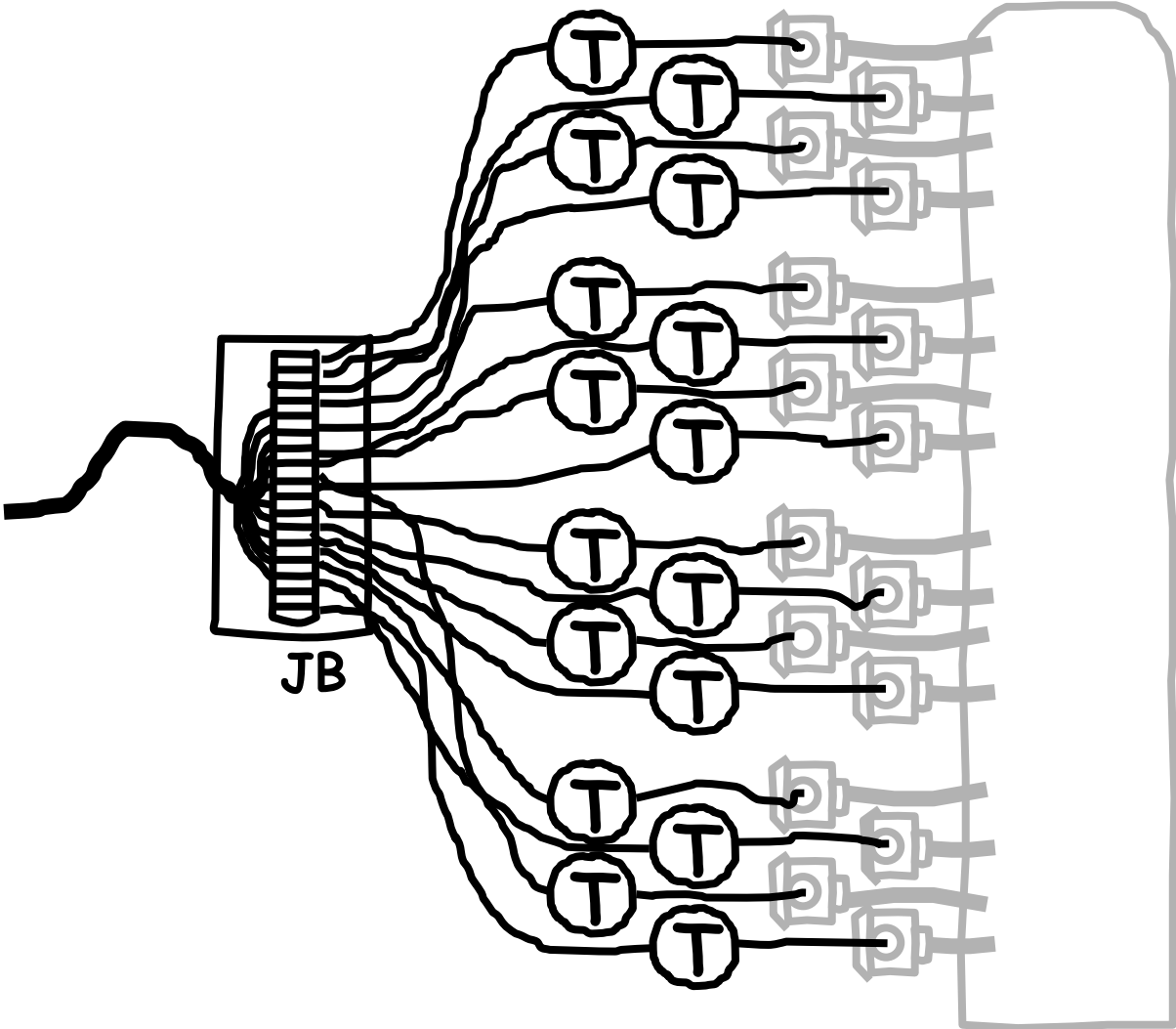
Reducing Device Count

Multi-Input Transmitters

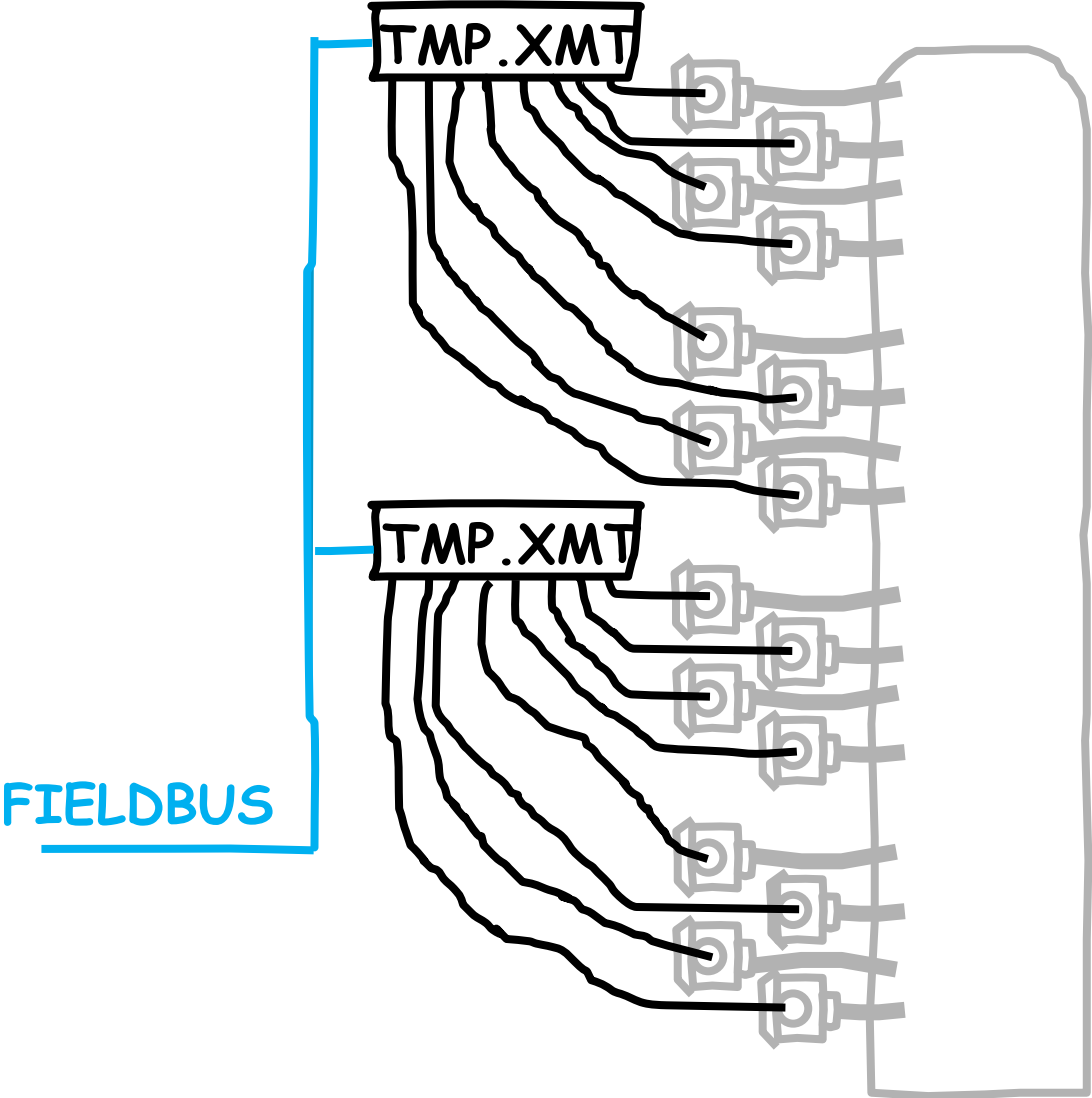


Fieldbus
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Single Point Temperature Transmitters



Multi-Input Fieldbus Temperature Transmitters



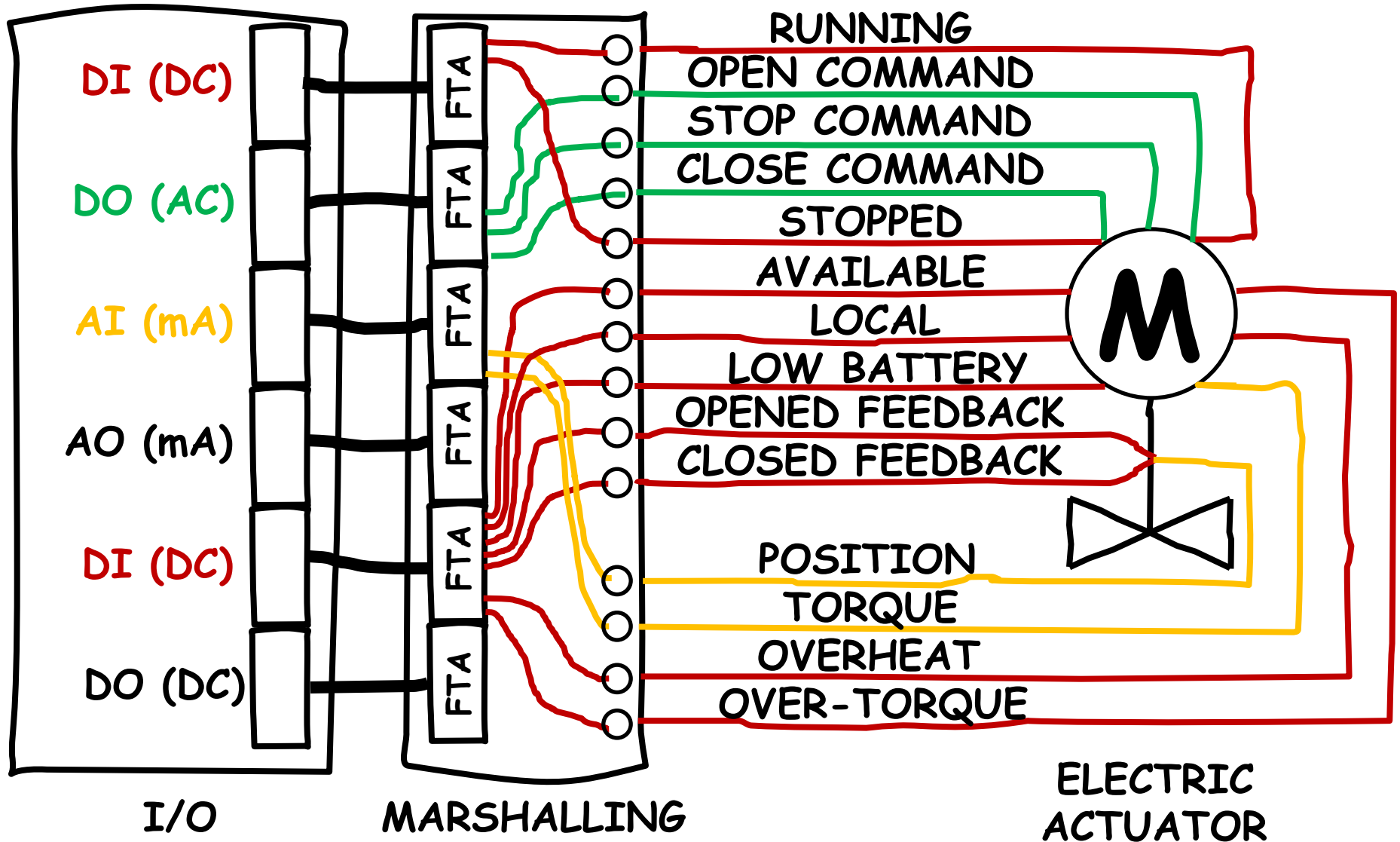
Eliminating the Last Proprietary Protocols

Fieldbus in complex devices reduce wiring the most

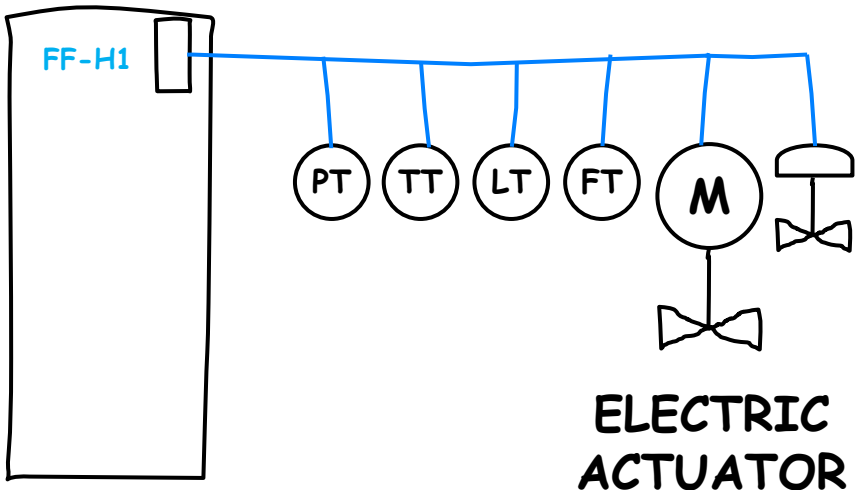
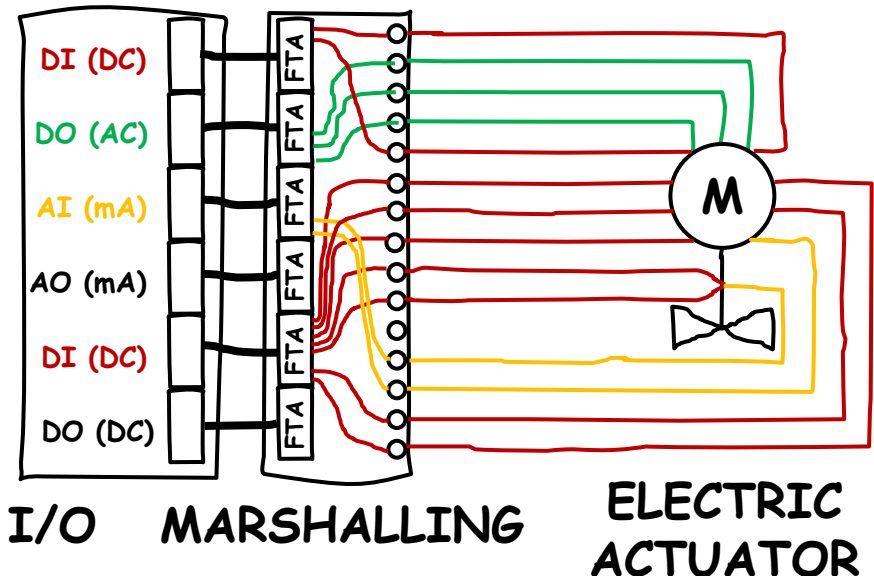


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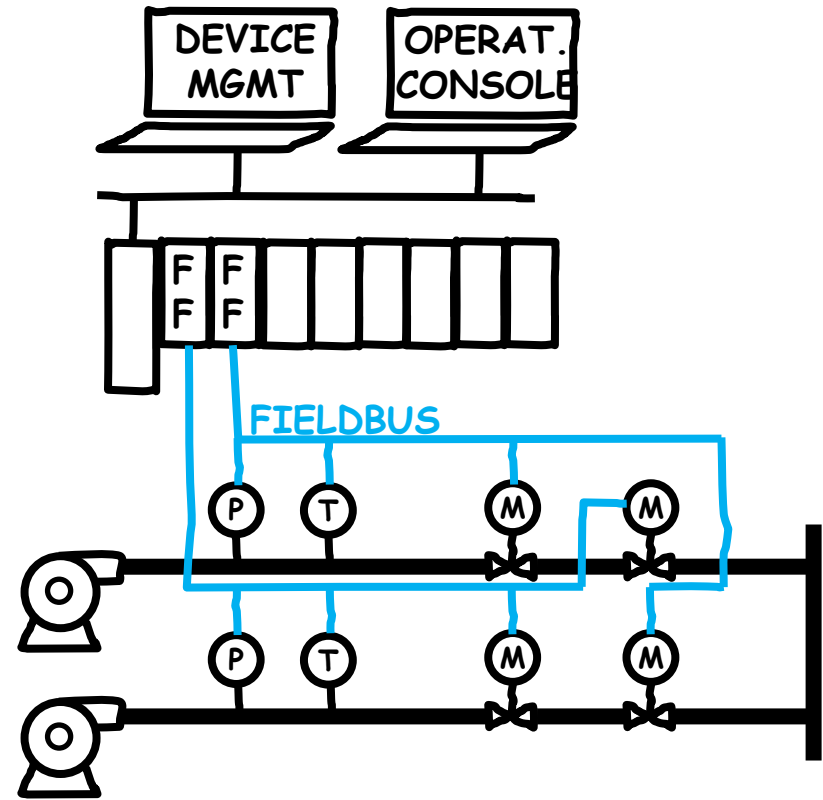
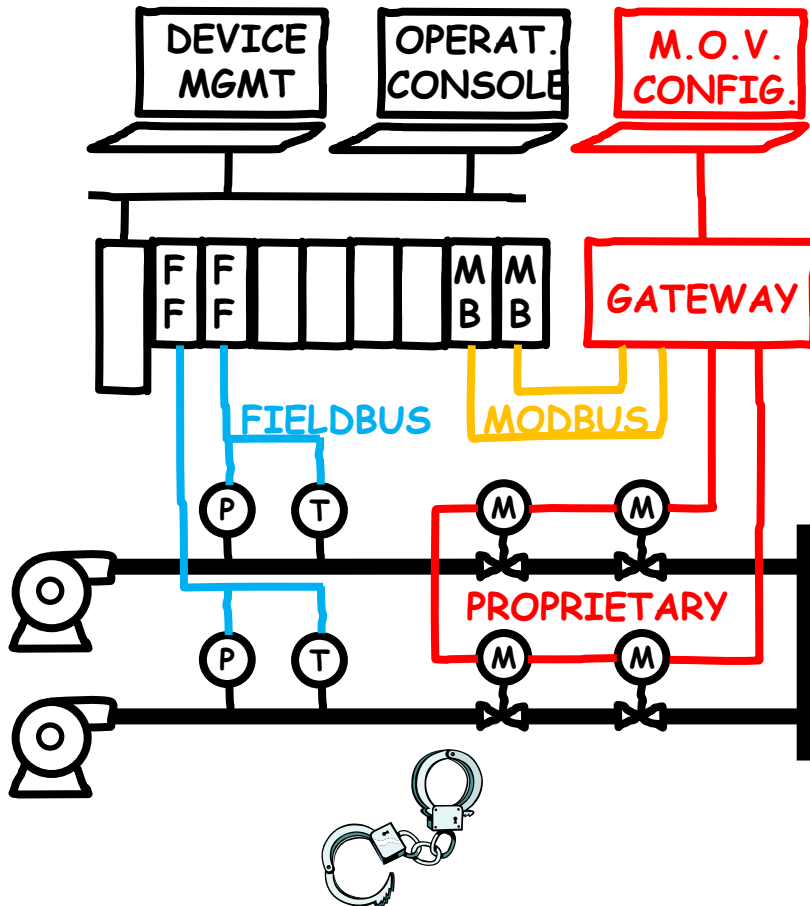
Complex Devices Have Many Signals



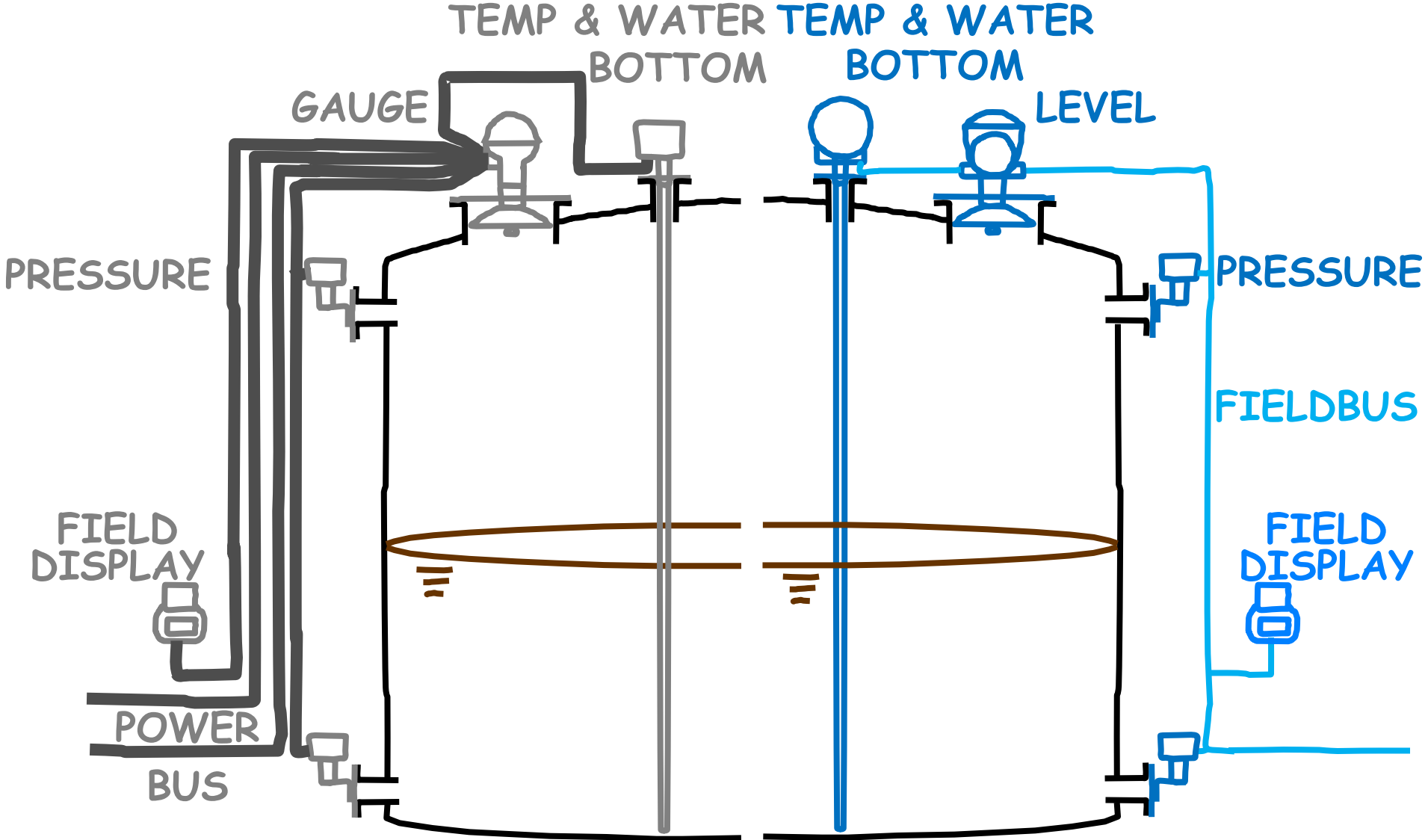
“Virtual Marshalling” of Intelligent MOV in Software



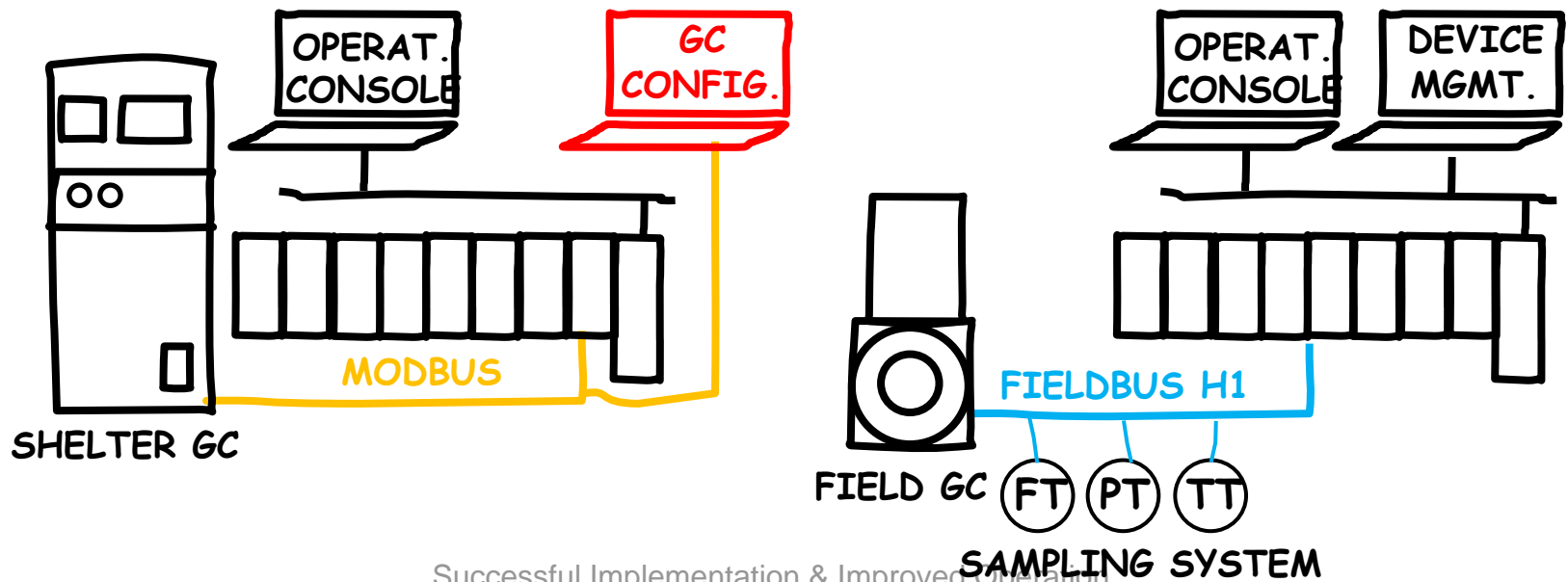
Eliminate Proprietary Protocols, Gateways, and Proprietary Software



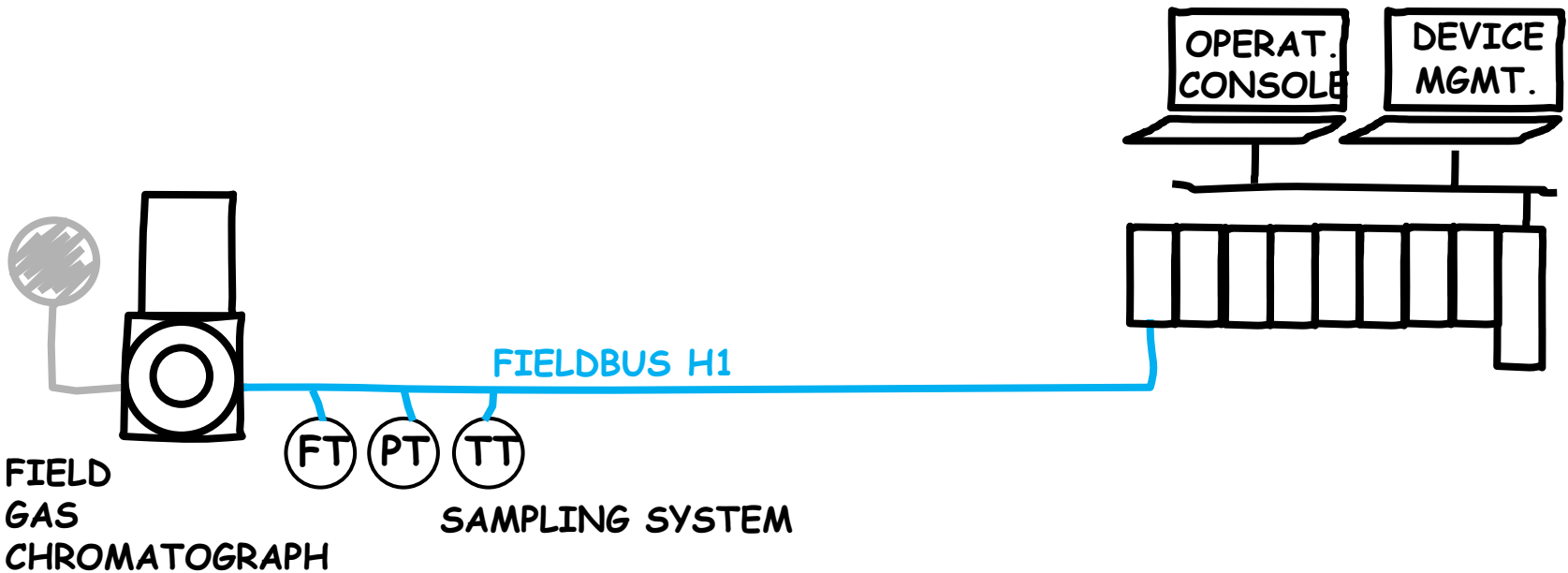
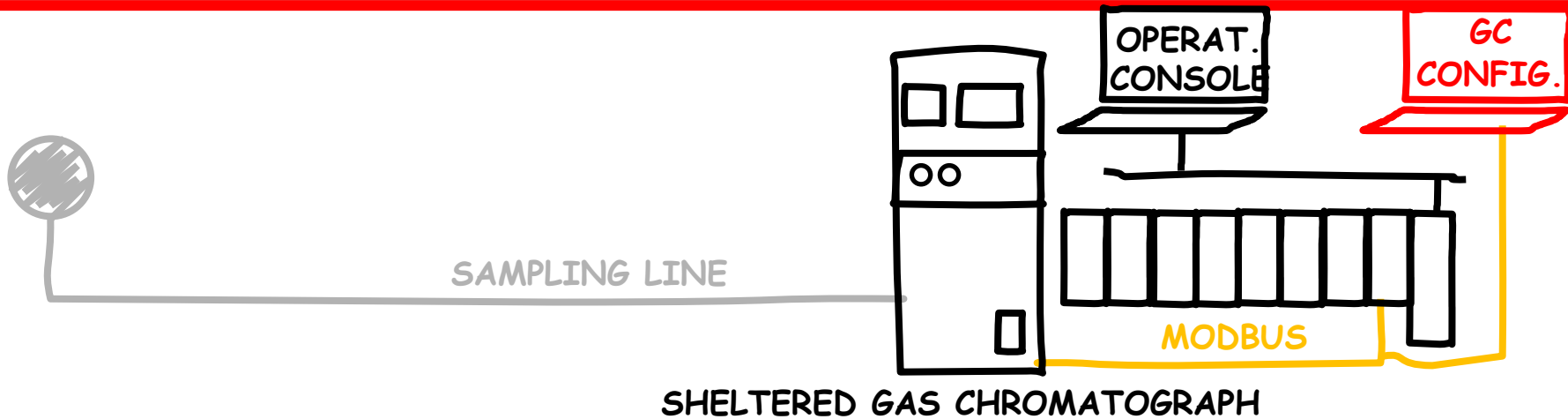
Intrinsically Safe Two-Wire Intelligent Tank Gauging System



IPAS: Integrated Process Analyzer System - Shared Infrastructure



FOUNDATION fieldbus as “Electronic Sampling Line”

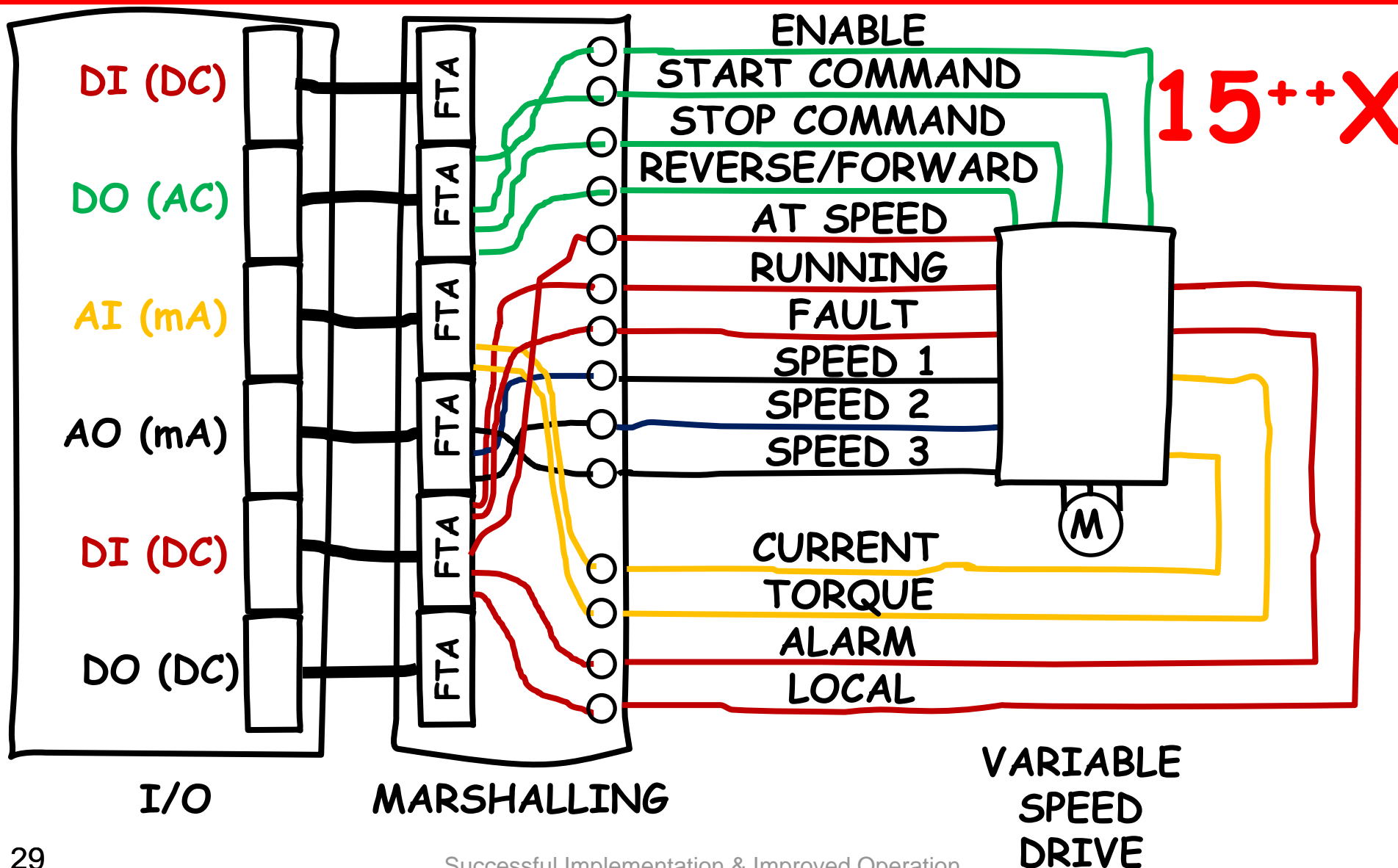


Motor Controls



Fieldbus
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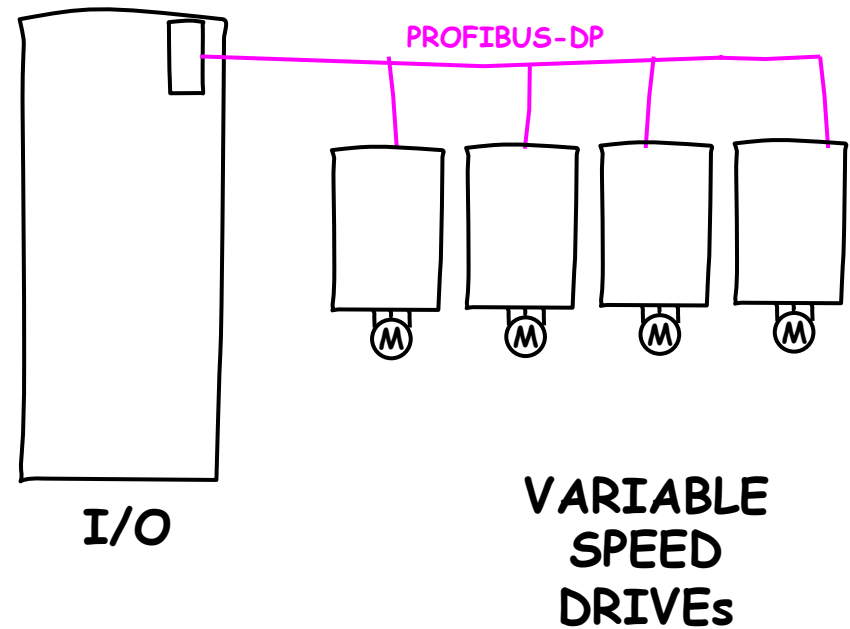
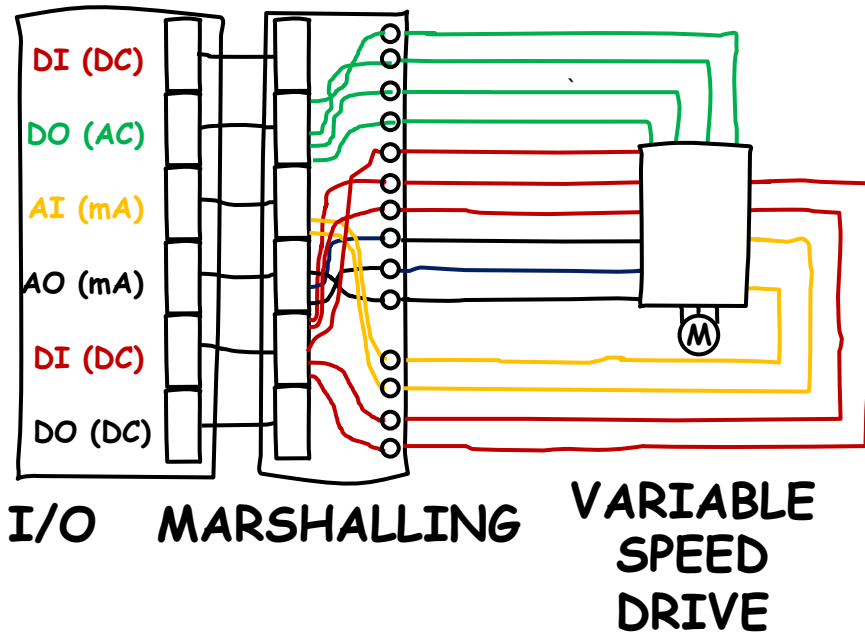
Variable/Adjustable Speed/Frequency Drive



15++X

VARIABLE
SPEED
DRIVE

“Virtual Marshalling” of VSD in Software



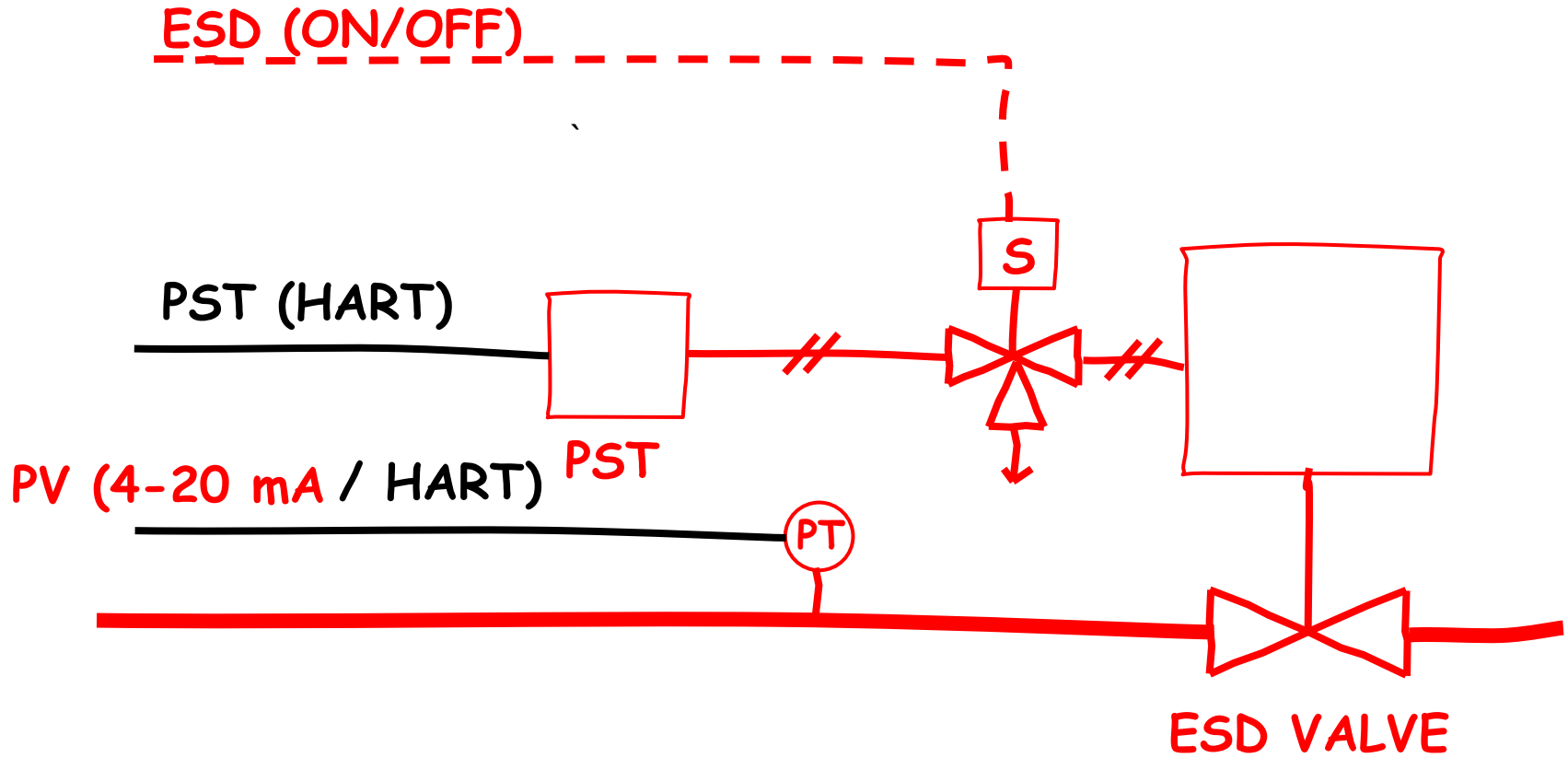
Safety Instrumented Systems (SIS)

Products are hardwired



Fieldbus
Foundation

SIS



Summary

- Reducing footprint and wiring further than ever
- Smart discrete devices
- Flexibility to handle changes
- Reduce device count
- Eliminating the last proprietary protocols
- Motor controls
- SIS