

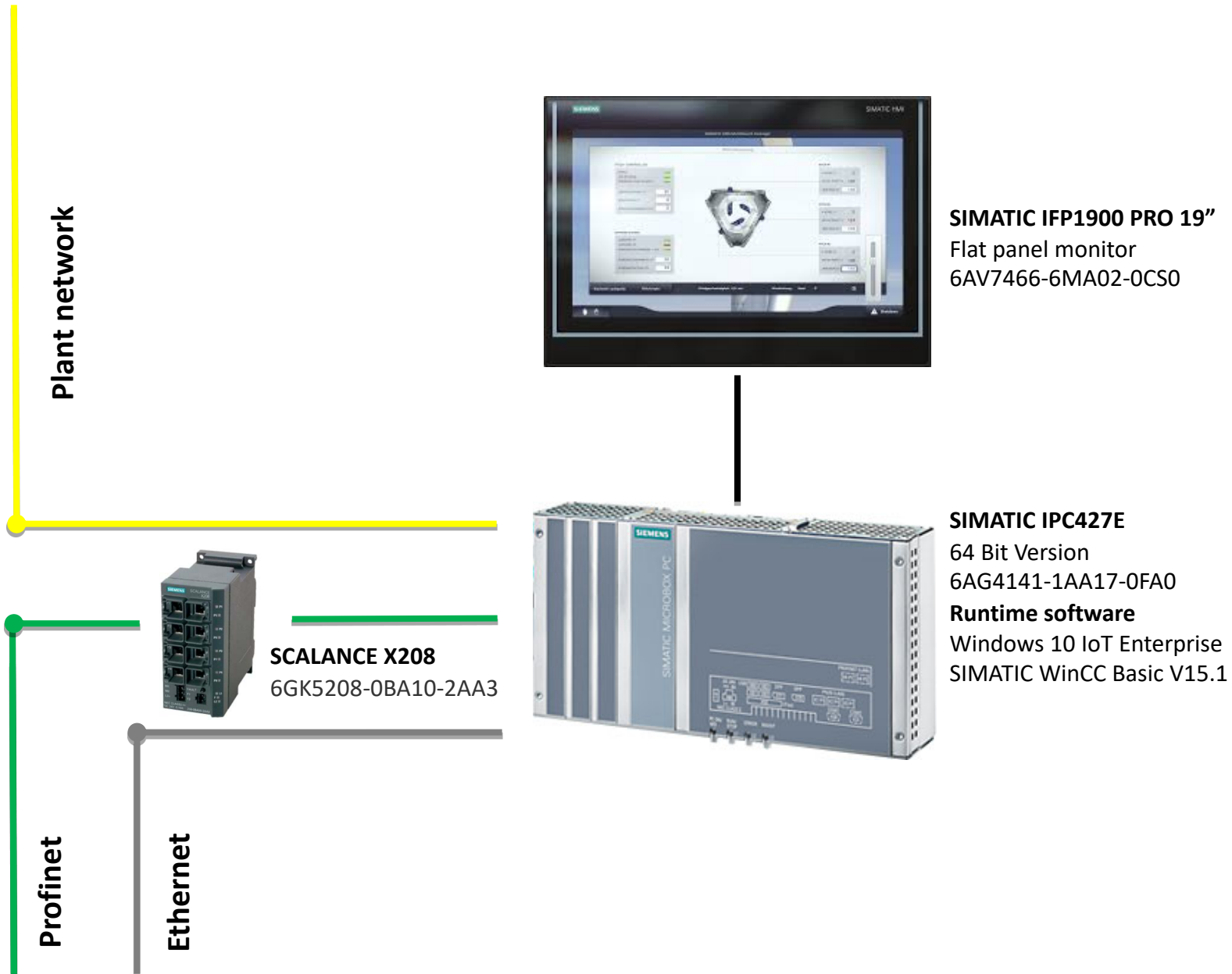


Elektrický koncept robotizovaného meracieho pracoviska

ME-Inspection SK

20. 12. 2020, Version 1.4

Version	Description of change	Person
1.0	Creation of document	Patrik Herčút
1.1	Add more PLC options	Patrik Herčút
1.2	Add ethernet for LLT sensor Change of robot control unit Manageable switch Safety scheme	Patrik Herčút
1.3	Revision PLC order number Add safety shut down scheme	Patrik Herčút
1.4	Camera calibration version	Patrik Herčút



1.)



HW PLC
CPU 1516F-3 PN/DP
6ES7516-3FN01-0AB0
(PROFIsafe, SIMATIC ProDiag
S7-1500, Runtime License(s))

+ no need safety relay
- price

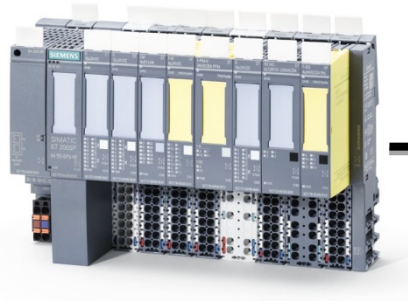
2.)



HW PLC
CPU 1516-3 PN/DP
6ES7516-3AN01-0AB0
SIMATIC S7-1500

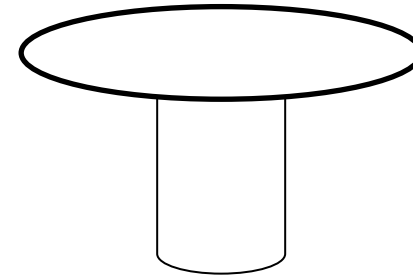
+ price
- need safety relay

Electrical concept: Rotary table control (Tire testing)



ET200SP

I/O control

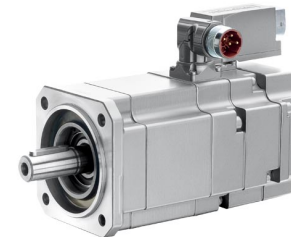


Rotary table



Sinamics S120

Motor control



SIMOTICS 3 1FK7042
PN=0.59kW



LLT
Laser Line
Triangulation
Sensor



Controller E40
Communication:
Profinet, Ethernet/IP
(100BASE-TX), USB, RS-232C



Kawasaki RS010N
Articulated robot
6 axis





**F-DI 6ES7
ET200SP module
136-6BA00-0CA0**



**SICK
S30A-4011BA
Safety scanner
laser**

**EMERGENCY
Stop1**

**Other safety
devices**





PILZ PNOZ X6
Safety relay



**SICK
S30A-4011BA**
Safety scanner
laser

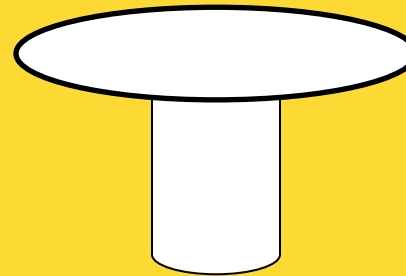


**EMERGENCY
Stop**





Robot
current movement



Rotary table
pneumatic pistons
rotation
ect. outputs