Test Project

Task F

Mechatronics

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Content

Introduction to Test Project F 3
Shared Tasks GrafCet Diagramm, modification and troubleshooting at a Conveyor System with cap assembling 3
Scenario 3
Aids 3
Task 3
Allocation Module SKC 4
Allocation Module Assembling 5

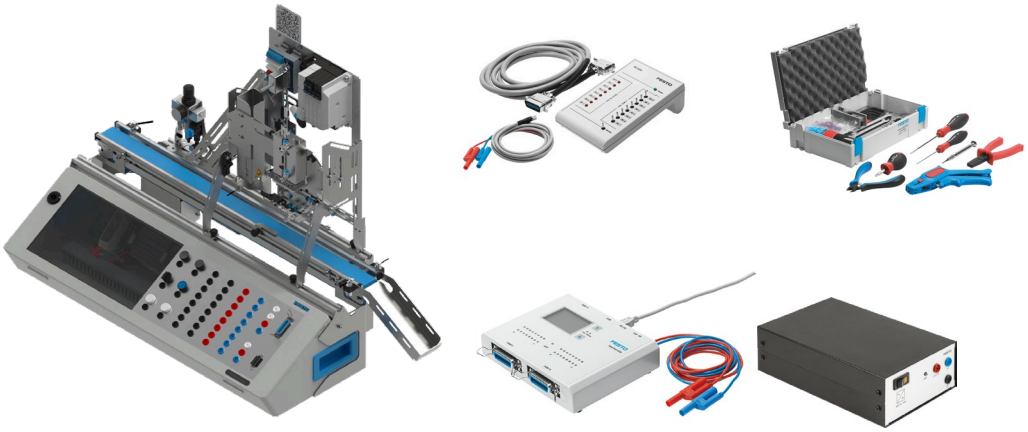
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Introduction to Test Project F

Shared Tasks GrafCet Diagramm, modification and troubleshooting at a Conveyor System with cap assembling

TMAX	INFORMATION
15 min	

Scenario



The customer calls you because of mistakes in the Program and missing Production steps in the Program, elements are missing, and connections have been lost.

Starting situation:

- No errors in the mechanics/wiring
- Workpieces are on the slide with seperator
- All cylinders are retracted, Gripper closed = initial position
- Production begins by pressing the start button for each workpiece
- Process: Distribution – Mounting a cover – Press Reset button to continue Transport on the slide at the right end of the conveyor belt

Aids

- Provided Tools
- Digital simulation box
- FluidSim: For Reset the Program press STOP and Start again

Task

To get their system up and running again.

You have 15 minutes to correct/add steps/transitions in the Program and get the program running again.

Add the Reset button from the control panel to continue the process after cap assembling and initial position.

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Allocation Module SKC

I/O TERMINAL: 1 SIGNAL INDICATES	FLUIDSIM TAG
DI 0: workpiece at start of conveyor	xSENS_START
DI 1: workpiece at end of conveyor	xSENS_END
DI 2: Button start pressed	xBTN_START
DI 3: Button stop not pressed	xBTN_STOPP
DI 4: Automatic mode	xSWITCH
DI 5: Button reset pressed	xBTN_RESET
DI 6: not used	-
DI 7: not used	-

I/O TERMINAL: 1 SIGNAL SET	
DO 0: Move conveyor to right hand side	xCONV_RIGHT
DO 1: Move conveyor to left hand side	xCONV_LEFT
DO 2: Creep speed on	xCONV_CREEP
DO 3: Indicator light start switched on	xLED_START
DO 4: Indicator light reset switched on	xLED_RESET
DO 5: Indicator light Q1 switched on	xLED1
DO 6: Indicator light Q2 switched on	xLED2
DO 7: Separate WP from slide	xSEP_SLIDE

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Allocation Module Assembling

I/O TERMINAL: 1 SIGNAL INDICATES	
DI 0: Gripper is down	xSENS_CYL1_EXT
DI 1: Gripper is up	xSENS_CYL1_RET
DI 2: Gripper is extended	xSENS_CYL2_EXT
DI 3: Gripper is retracted	xSENS_CYL2_RET
DI 4: Gripper is open	xSENS_GRP_OPEN
DI 5: Magazin not empty	xSENS_WP_MAGAZINE
DI 6: Workpiece at stopper	xSENS_WP_CONV
DI 7: not used	-

I/O TERMINAL: 1 SIGNAL SET	
DO 0: Move gripper down	xCYL1_EXT
DO 1: Move gripper up	xCYL1_RET
DO 2: Extend gripper	xCYL2_EXT
DO 3: Retract gripper	xCYL2_RET
DO 4: Open gripper	xGRP_OPEN
DO 5: Open stopper	xSTOPPER_OPEN
DO 6: not used	-
DO 7: not used	-

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