
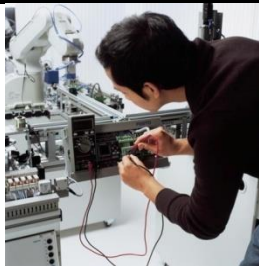




Description / checked using PLC	Evaluation	
1. Function of the production in general 	Done	Max. Points
<p>Preparation: Connect the PLC board with the I/O terminal and the control panel, switch key to the position AUTO, start the PLC, no programming cable and no communication between PC and PLC, valve for air opened, all stations are in initial positions. Magazine is empty.</p> <p>The system is waiting for a start signal on the Control Panel in Handling Station.</p> <p>You will get time to do that before the evaluation!</p> <p>Selection of colour of workpieces will be established by the judging team.</p>		

1. Function of the production in general	Done	Max. Points
5 workpieces in the magazine in HS station, 5 small caps on the slide at pick and place module, 3 tall caps on the slide with the separator		
START lamp is ON (HS)!		
Press STARTButton (HS)		
The same process as in Task 3: (Distributing workpiece ==> transfer to Assembling Station (AS) ==> place on conveyor ==> mounting cap if possible ==> transfer to slide or Handling Station and sorting included) Use the allocation tables from the tasks before exceptions see task description page 2:		
Distributing workpiece ==> transfer to Assembling Station (AS) ==> place on conveyor ==> mounting cap if possible ==> transfer to slide or Handling Station and sorting included (workpiece 1) If the workpiece was upside down and finish on the slide: 100% marks	1/5 mfe aspect	
Distributing workpiece ==> transfer to Assembling Station (AS) ==> place on conveyor ==> mounting cap if possible ==> transfer to slide or Handling Station and sorting included (workpiece 2) If the workpiece was upside down and finish on the slide: 100% marks	1/5 mfe aspect	
Distributing workpiece ==> transfer to Assembling Station (AS) ==> place on conveyor ==> mounting cap if possible ==> transfer to slide or Handling Station and sorting included (workpiece 3) If the workpiece was upside down and finish on the slide: 100% marks	1/5 mfe aspect	
Distributing workpiece ==> transfer to Assembling Station (AS) ==> place on conveyor ==> mounting cap if possible ==> transfer to slide or Handling Station and sorting included (workpiece 4) If the workpiece was upside down and finish on the slide: 100% marks	1/5 mfe aspect	
Distributing workpiece ==> transfer to Assembling Station (AS) ==> place on conveyor ==> mounting cap if possible ==> transfer to slide or Handling Station and sorting included (workpiece 5) If the workpiece was upside down and finish on the slide: 5/6 marks and the GREEN, RED and YELLOW signal lamp ON	1/6 mfe aspect	
PLC board total		8



Description		Evaluation	Maximum evaluation
Professional practice / Judgment			
			
Judgment topic			
*	1. Cleanliness of the workplace and the station while approval		
	Excellent: 3P; Professional: 2P; Optimization / rework necessary: 1P; not acceptable; 0P		
*	2. Routing of tubes and cables on profiles and on the profile plate		
	Excellent: 3P; Professional: 2P; Optimization / rework necessary: 1P; not acceptable; 0P		
*	3. Mechanical and pneumatical implementation		
	Excellent: 3P; Professional: 2P; Optimization / rework necessary: 1P; not acceptable; 0P		
*	4. Electrical installation and wiring of the components		
	Excellent: 3P; Professional: 2P; Optimization / rework necessary: 1P; not acceptable; 0P		
*	5. Special cases announced by experts and the overall impression		
*	Excellent: 3P; Professional: 2P; Optimization / rework necessary: 1P; not acceptable; 0P		
Professional Practice total			3

Description	Evaluation	Maximum evaluation
Time evaluation (only if the maximum number of points is achieved for PLC board function and at least 2 points for Professional Practice)		
Points for time = $[(\text{longest time} - \text{actual time}) \times 2,5 / (\text{longest time} - \text{shortest time})]$		

Description	Evaluation	Maximum evaluation
Energy efficiency evaluation (only if the maximum number of points is achieved for PLC board function and at least 2 points for Professional Practice)		
Points for air consumption = $[(\text{highest air consumption} - \text{actual air consumption}) \times 2,5 / (\text{highest air consumption} - \text{lowest air consumption})]$		

Description / Total evaluation Project 6:	Evaluation	Maximum evaluation
Operation based on simulation box	no evaluation	
Operation based on PLC board: Function Operation mode and signals	no evaluation	
Operation based on PLC board: Function of the production in general	no evaluation	
Operation based on PLC board: Function Quality of production and signals		8
Operation based on PLC board: Function Error message and signals	no evaluation	
Professional practice / judgment		3
Points for time evaluation		2,5
Points for energy efficiency		2,5
Total points		16