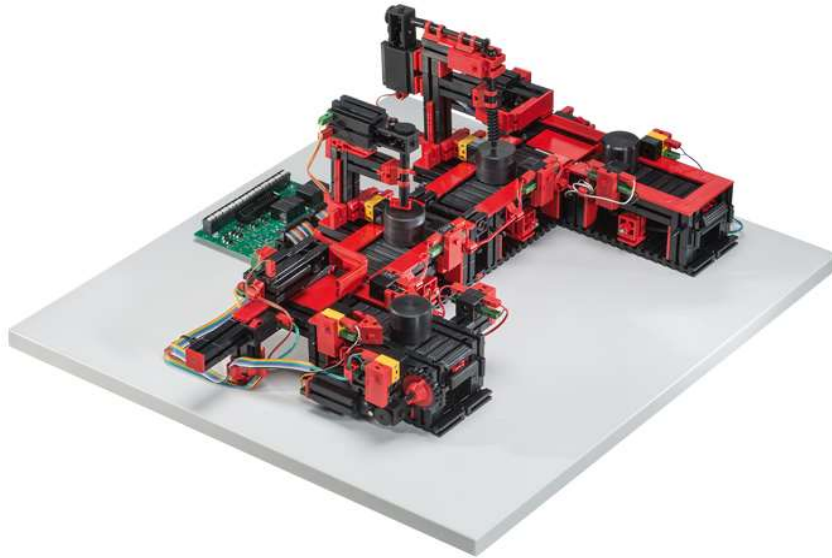


- Model Fischertechnik Indexing Line



Real Model

- **Functional Description**

The Fischertechnik indexing line is a model of a real production plant with conveyor lines. Real processes are simulated just like in a real industrial environment. The cycle line consists of 4 conveyor lines, 2 ejectors, 5 light barriers as well as a milling station and a drilling station. The component is placed on the first conveyor line. By interrupting the first light barrier, the component is transported to the second light barrier. It is checked whether ejector 1 is free and transported to ejector 1 after release. If the milling station has given the release, the ejector 1 pushes the component onto the second conveyor line and the component is transported to the light barrier of the milling machine. The milling process is repeated 5 times and after the drilling station is released, the component is transported to the light barrier of the drilling station. There, the drilling process is also repeated 5 times. Once ejector 2 has been released, the component is conveyed to it. Ejector 2 then pushes the component to conveyor section 4. After the signal from light barrier 5, the component stops and waits for the operator to remove it manually. The operator can place the component in the insertion station again and the process is repeated.

In/Output assignment

The in- and outputs of the model are assigned as follows (the designation input or output refers to the connected controller):

| Input Nr. | PLC-Variable name | | Specification |
|------------|----------------------------------|--------|-----------------------------------|
| 1 | g_DI_xPusher_1_extracted | :BOOL; | Pusher 1 extracted |
| 2 | g_DI_xPusher_1_retracted | :BOOL; | Pusher 1 retracted |
| 3 | g_DI_xPusher_2_extracted | :BOOL; | Pusher 2 extracted |
| 4 | g_DI_xPusher_2_retracted | :BOOL; | Pusher 2 retracted |
| 5 | g_DI_xLB2_Feeder_station | :BOOL; | LB2 part present feeder station |
| 6 | g_DI_xLB_Milling_station_not | :BOOL; | LB part present milling station |
| 7 | g_DI_xLB1_Feeder_station_not | :BOOL; | LB1 part present feeder station |
| 8 | g_DI_xLB_Drilling_station_not | :BOOL; | LB part present drilling station |
| 9 | g_DI_xLB_Unloading_station_not | :BOOL; | LB part present unloading station |
| | | | |
| Output Nr. | PLC-Variable name | | Specification |
| 1 | g_DO_xPusher_1_retract | :BOOL; | Pusher 1 retract |
| 2 | g_DO_xPusher_1_extract | :BOOL; | Pusher 1 extract |
| 3 | g_DO_xPusher_2_retract | :BOOL; | Pusher 2 retract |
| 4 | g_DO_xPusher_2_extract | :BOOL; | Pusher 2 extract |
| 5 | g_DO_xDrive_Feeder_station_ON | :BOOL; | Drive feeder station ON |
| 6 | g_DO_xDrive_Milling_station_ON | :BOOL; | Drive milling station ON |
| 7 | g_DO_xDrive_Mill_ON | :BOOL; | Drive milling ON |
| 8 | g_DO_xDrive_Drilling_station_ON | :BOOL; | Drive drilling station ON |
| 9 | g_DO_xDrive_Drill_ON | :BOOL; | Drive drilling ON |
| 10 | g_DO_xDrive_Unloading_station_ON | :BOOL; | Drive unloading station ON |