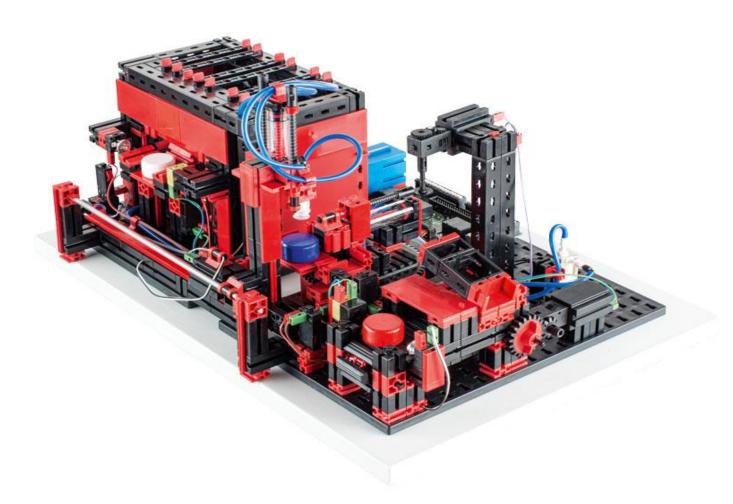
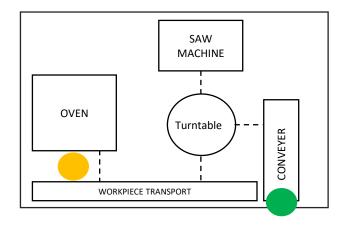


fischertechnik: Vacuum Gripper Robot Station no. 536632

- Program design

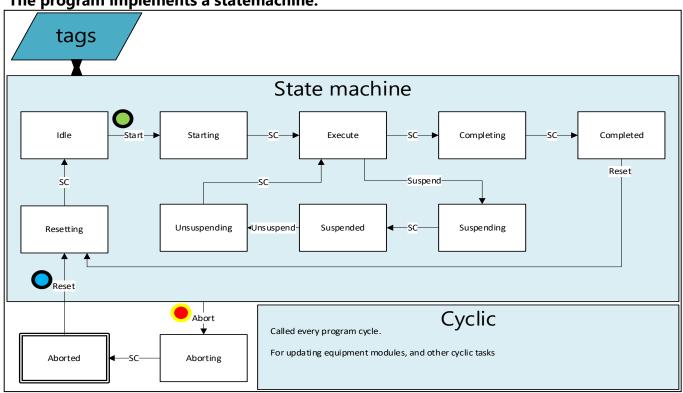




Input of pieces is located hereOutput of pieces is located here

Program design

The program implements a statemachine.



Aborting

The init/startup state of the SFC program. No parts should be moving when the machine/unit is in this state.

Aborted

The resetting state should reset all the equipment modules. Any active errors are also reset in this state. All equipments are (if applicable) also initialized, when the initialization is done, the machine moves to next state.

Idle

The idle state indicates to the process cell that this unit can be started. The next state is only activated by a **start** command is given.

Starting

In the starting state things can be setup before moving to the execute state. For example starting a conveyer e.g.

Execute

The main exution takes place in this SFC state. In this state the operation on the piece(s) is performed. When the operation is done the next state is activated

Completing

The last things are wrapped up before moving to the execute state, for example stopping the belt e.g.

Completed

The last state of the SFC program, this state indicates to the process cell that the operations on the piece(s) are done. The next state (<u>resetting</u>) is activated by a **Reset** command.

Suspending

The suspend state can only be activated when the current state is <u>Execute</u> and a **Suspend** command is made. The suspend state prepares the program for the suspended state. E.g. slowing/stopping equipments

Suspended

In the suspended state the unit processes no pieces until the unsuspend command is given. Unlike the aborting/stopped state, the program can easily start again.

Unsuspending

In the unsuspending state preparations are made to move to execute state. E.g. starting/ramping up equipments. The unsuspeding state is activated by a **Unsuspend** command.

Program design

Tags.

The program implements tags in order to communicate with the ProcesCell (coordinates the different stations when ik factory config). These tags can also be changed during runtime by the user in order to control the station in a stand-alone configuration.

Status tags u	used to get information from this station	
Name	Comment	Datatype
sStateCurrent	The name of the current active state	STRING
iProdProcessed	Count No. Of products that have passed	INT
xErrorActive	TRUE when error is active in Unit	BOOL
xPiecePlaced	Indicates if a piece has been placed	BOOL
Command tags u	used to <u>set</u> information in this station (to control the station) Control of the machine (start, reset, suspend e.g.)	ENUM ControlCommand

Program design | SFC program

