FAT - Multi Processing Station with Oven

Test items:

When in resetting State

1 all equipment modules are resetted, the state Idle is activated when all equipments are succesfully initialized

When in execute State

2 Before entering the execute state the oven is started and waits for a piece.

3 if a piece is placed at the stations's input,

- a The oven starts its cycle
- b The piece is moved from the oven equipment to turntable equipment by the transport equipment
- c The turntable moves to the saw equipment
- d The saw starts it cycle
- e The turntable moves to the belt
- f The turntable ejects the piece onto the belt
- g The belt moves the piece to the output of the station
- h The next state (completed) is activated

Errors

4 The oven feeder motor is activated for too long

5 The transport motor is activated for too long

6 The turntable motor is activated for too long

7 The conveyer is activated for too long

Test #1 *all equipment modules are resetted, the state Idle is activated when all equipments are succesfully initialized*

Pre-conditions

1. The current active step is resetting

Test steps

1. None

Check for feeder already in front before opening door

Expected result

All the Equipment modules are resetted. When:
EM_Oven
EM_Transport
EM_Turntable
Are succesfully initialized the next state (idle) is activated.

Test #2 *Before entering the execute state the oven is started and waits for a piece.*

Pre-conditions

1. The current active step is Idle

Test steps

1. Set CntrlCmd to **Start**

Add statusbit for peicePlaced

Expected result

In the Starting state the xStart input of EM_Oven equipment is set to TRUE, the next state (Execute) is activated immediatly after.

Test #2 *if a piece is placed at the stations's input,*

Pre-conditions

Test 1 has been concluded (The station has been started)

Test steps

1. NONE

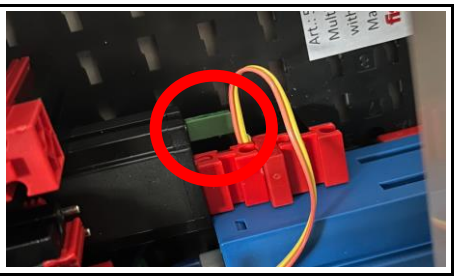
Expected result

Al steps as described in 2.a - 2.h should be executed

Test #3 *The oven feeder motor is activated for too long*

Pre-conditions

1. The current active step is Execute
2. No piece has been placed at the input
3. Power is removed from feeder motor:



Test steps

1. Place piece on feeder table

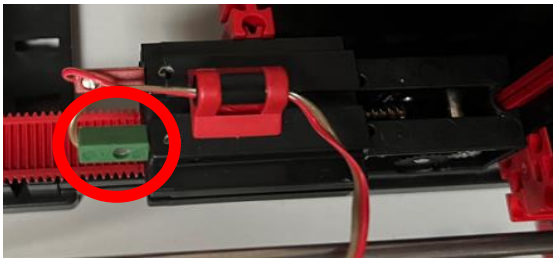
Expected result

The feeder table will never reach its destination. After X seconds an error should have generated.

Test #5 *The transport motor is activated for too long*

Pre-conditions

1. The current active step is Execute
2. No piece has been placed at the input
3. Power is removed from transport motor:



Test steps

1. Place piece on feeder table

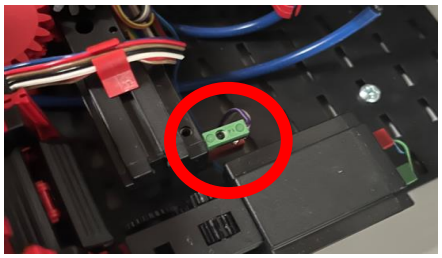
Expected result

The transport module will never reach its destination. After X seconds an error should have generated.

Test #6 *The turntable motor is activated for too long*

Pre-conditions

1. The current active step is Execute
2. No piece has been placed at the input
3. Power is removed from transport motor:



Test steps

1. Place piece on feeder table

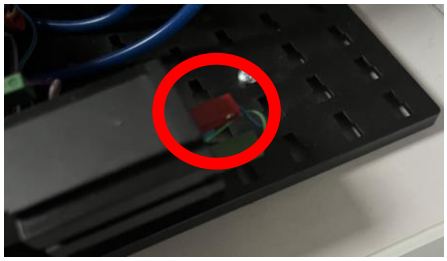
Expected result

The turntable module will never reach its destination. After X seconds an error should have generated.

Test #7 *The conveyer is activated for too long*

Pre-conditions

1. The current active step is Execute
2. No piece has been placed at the input
3. Power is removed from transport motor:



Test steps

1. Place piece on feeder table

Expected result

The piece will never pass the sensor because the belt is not moving. After X seconds an error should have generated.