PLC Program Flow

Task Available for Robot? — No → (loops back to start)

Yes ↓

Write "Robot Available = FALSE"

↓

New Part?

No ←
Read
1. Test Result Pass/Fail

Yes →
Read
1. Invalid_SNo

↓

Invalid_SNo == 1 (TRUE)?

No →
Read
1. Part_Adapter Plate Size
2. Part_Displacement Size
3. Part_Flange
4. Station # to load

Yes →
Robot Action for removing the invalid serial from scanner stage and put it in bin

Read
1. Part_Adapter Plate Size
2. Part_Displacement Size
3. Part_Flange
4. Station # to load

↓

Robot Action for Setting up Station

Test Pass?

Fail ←
Read
1. Rerun = 1/0 (True/False)

Pass ↓

Read
1. Station Number to unload passed serial

↓

Robot Action to unload the passed serial.

Rerun == 1 (TRUE)?

No Rerun ↓

Read
1. Station Number to unload failed serial

↓

Robot Action to unload the failed serial.

Rerun ↓

Read
1. Station Number to rerun the failed serial

↓

Robot Action to rerun the failed serial.

Write "Robot Availabe = TRUE" once actions are done