

## TS-ALPHA SERIES NEW MOLD SET UP PROCEDURE.

( Please mark on each number after follow each step and go to next step )

Before Mold Set Up

1. ( ) WHEN ROBOT IS IN USE MODE “ USE “.
2. ( ) TURN ON ROBOT ( HANDY CONTROLLER BOTTON SIDE ).
3. ( ) PRESS “ENTER” -> IT WILL MOVE ROBOT TO ORIGIN POINT.
4. ( ) PRESS “ FORWARD “ TRAVERSE BUTTON UNTIL ROBOT GOES TO END OF STROKE. ( Out Side of Molding Machine )
5. ( ) And If robot get’s Alarm “ Turn off the robot.
6. ( ) Move Plug on Interface box from Robot “ Use “ to “ NO Use’

After finish the Mold Set up and Run Molding machine.

7. ( ) After get 1<sup>st</sup> Piece Inspection is Passed from New Mold Set up process.
8. ( ) Make End of Arm Tooling with Real Samples with Cavity, ( Find Wide area to Suction ).
9. ( ) Make sure Robot EOAT position to grip or suction well for real parts ( Do Not install EOAT yet ).
10. ( ) Move Plug on Interface box from Robot “ No Use “ to “Use ”
11. ( ) Turn on the Robot.
12. ( ) Press “ Enter” -> It will move robot to origin Point.
13. ( ) Press “ Forward “ Traverse Button Until Robot goes to the end of Stroke. ( Out side of Molding Machine ) : Make sure there is nothing on Robot’s way.
14. ( ) Press “ Up/Dn” Button and lower the Robot arm.
15. ( ) Install End of Arm Tooling and. ( Make sure EOAT will not hit robot and door when it’s in motion
16. ( ) Press “ Up/Dn” Button and ascent the Robot arm.
17. ( ) Press “ Rotate” Button to Rotate Chuck and have Clearance for IMM Door.
18. ( ) Press “ Backward “ Traverse Button until robot goes to the Home Position.
19. ( ) Press “ Rotate” Button to Rotate the Chuck.

Kick Position and Stroke Adjustment : Need to required to adjust Descent position and kick ( Reach ) stroke.

20. ( ) Open the Mold, Make sure IMM send signal to Robot Mold is completely open
21. ( ) Turn on “ Waiting Adjustment Power Switch ”
22. ( ) Press “ waiting position “ on Handy Controller
23. ( ) Press arrow button to find right position and Stroke
24. ( ) Make sure robot will not hit the mold when the robot arm down.
25. ( ) Press Stop or Etc button to move to manual mode.
26. ( ) Press Dn/Up button so that Robot arm can go in to the mold.
27. ( ) Press “Waiting Position” on Handy Controller again.



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28. ( ) Press arrow buttons for precision adjustment.
29. ( ) Press Stop or Etc button to move to manual mode.
30. ( ) Press Kick button
31. ( ) If the stroke and position seems right, open the safety door, and adjust End of arm tooling.
32. ( ) Press Kick Return and Press Dn/Up button
33. ( ) Turn off “Waiting Adjustment Power Switch.”

#### Automode Selection or Creation

34. ( ) Make sure when the molding machine send signal to Robot when the mold is completely open
35. ( ) Make sure Robot arm will not hit the mold or pin when robot arm is down.
36. ( ) Press Shift and Mode at the same time.
37. ( ) Press Enter to create or search the number that you already saved.
38. ( ) If there is a file that is same motion type, select the Number and Run step by step operation and make sure motion is right for new application. ( Step run can be run with Pressing Down arrow button )
39. ( ) If need to create new motion , press “NEW MOLD” and create new motion pattern with Down Arrow button and left arrow button with pressing “Enter”
40. ( ) If Motion pattern is right, run Step by step motion pattern with Down Arrow Button.
41. ( ) If Step motion is right, Run 1 cycle button to see timer ( This step can skip )
42. ( ) Adjusting Timer required to proper operation especially when robot grip or suction the parts.

#### Automatic Run with Molding Machine

43. ( ) Make sure all the motion pattern is right and Robot is in Waiting Position
44. ( ) Close Safety Door, Make sure Molding Machine is ready to run in Auto Mode
45. ( ) Run Molding Machine Automode.
46. ( ) Press Auto in Handy Controller twice.
47. ( ) Robot will wait until the mold open, When mold open, robot arm will descent and vacuum and kick to parts. If robot miss the parts robot will trigger the alarm ( If Parts detection is on )
48. ( ) If robot take out parts and up and traverse, Injection molding machine will close and run next cycle. Adjust timer while robot is in automode to optimize operation.

If something wrong , open safety door , it will stop molding machine and robot operation. ( Pneumatic mechanism will run until end of stroke ). In case of emergency, Press E-Stop of Molding Machine or Press- E-stop of Robot operation. If you have any question, Please feel free to contact me.

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