# USER PROGRAMMING TOOL

# Lead Through Teaching

PAT.P

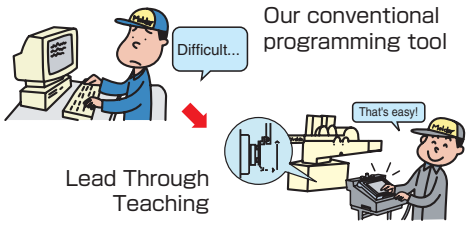
**(Standard specification)**

## What is Lead Through Teaching?

It is software enabling the operator to change program by teaching the take-out robot. The robot program can be easily changed with the touch-screen controller of the robot that is familiar to the operator. It does not require any specialized knowledge of programming or PC. Moreover, the time and expense for programming by the conventional method are sharply reduced.

## What distinguishes it from our conventional software for changing program?

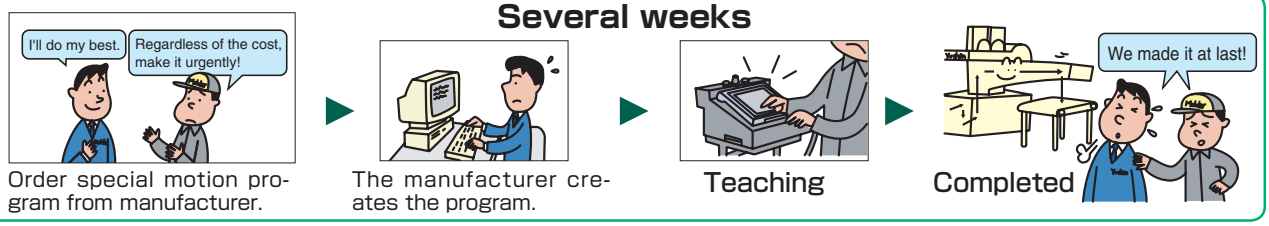
The conventional software requires PC to change motion programs.
By the conventional method, users first need to move a current motion program into PC, and then need to change the content of the program. After these procedures, users must reinstall the changed program onto the robot.

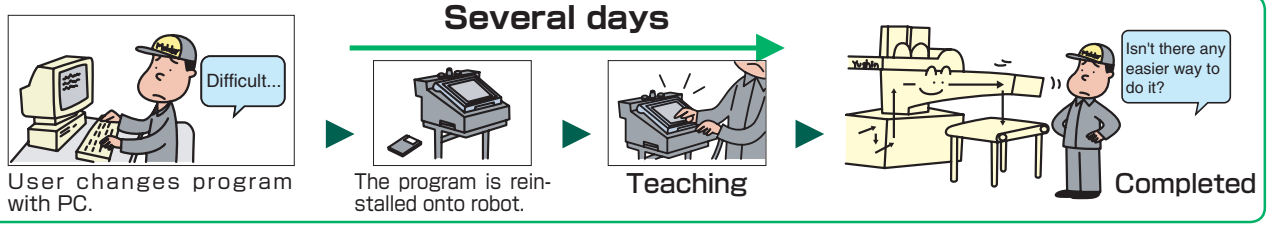

On the other hand, with Lead Through Teaching it is very easy to change a motion program. For instance, if you want to add a new position point, you just need to move the robot to the desired position in manual operation, and then press the Insert button and the Memory button. Furthermore, teaching can be completed automatically since the robot has been moved in program change.

## I want to add and change operation of take-out robot!

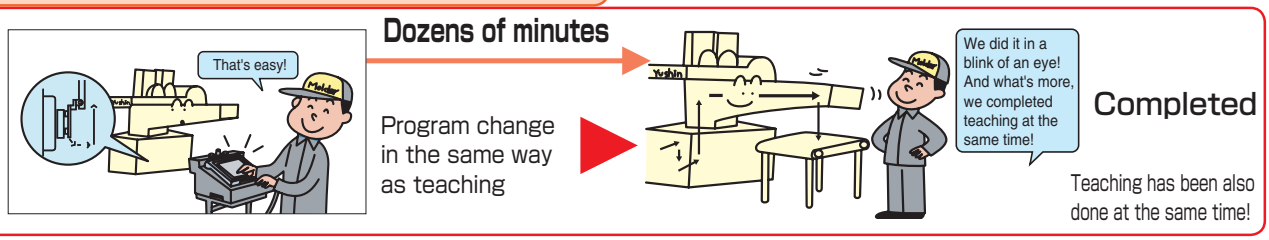
### Up to present




### With our conventional programming tool




### With Lead Through Teaching

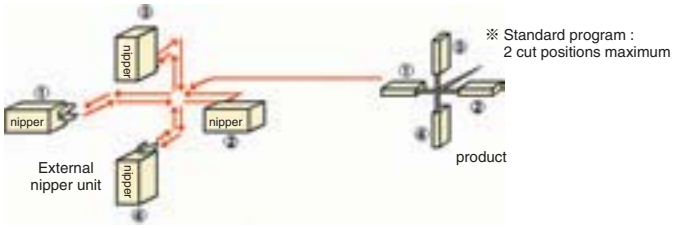


## Performance comparison

| | In the case of ordering a program from manufacturer | In the case of changing a program with PC | In the case of using Lead Through Teaching |
|---|---|---|---|
| Time saving | × | △ | ○ |
| Easiness | ——— | Difficult<br>Since changing a program is complex and rarely happens, it is hard to acquire a way to do it. | Easy<br>Changing a program is the same way as robot teaching. |
| Cost efficient | × | △<br>(PC hardware and considerable amount of work effort are required.) | ○<br>(PC is not required and it takes only dozens of minutes to complete the whole process.) |

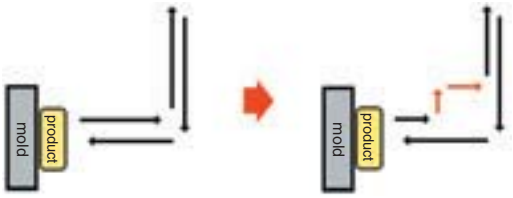
## Examples of use of Lead Through Teaching — Effective in such cases below —

● I want to add gate cut positions.



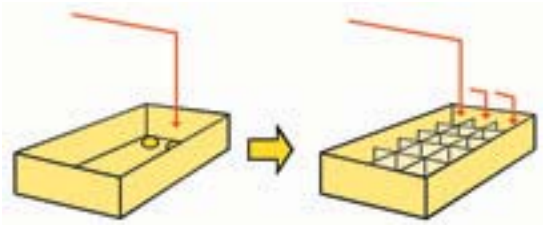

**I want to add gate cut positions due to change of the molded product.**

● I want to add an under-cut motion.




**I want to add the motion to pull out products and raise it a little bit from a mold.**

● I want to stock multiple products by separating them to cavities.



**I want to make a change from one position product release to cavity separation release.**

**※ Some parts such as vacuum suction circuit etc. are to be added.**

## What you can do more with "Lead Through Teaching"

● **Set up conditions to move robot to next sequence step**
Robot can be controlled to start next motion only after receiving input and output signal from external devices.

● **Add control for external device or valve output**
By adding a new output, control of the additional output can be done under auto operation.

● **Add timers**
A variable timer can be added after positioning motion and/or output to a valve.

● **Set motion speeds separately**
The moving speed to each position can be set up separately. Moreover, change of the numeral values of speed setting is possible, too.

● **Set position names**
Set names for each position freely. Moreover, the current point name can be changed.

Numerical value (of speed) input window

Name selection window

Keyboard window