

Nano-stepping actuator program

Set the home position

SET HOME

2 MNL A

2 WAC ONT? A = 1

2 MVR A 10

2 WAC ONT? A = 1

2 MPL B

2 WAC ONT? B = 1

2 DFH

Automated Etching

Loop

2 GOH A // go back to home position

2 WAC ONT? A = 1 // wait to keep moving the axis A, until A stops

2 MVR A 5 // set the initial radius

2 WAC ONT? A = 1

2 MPL B // move axis B to the top (Move to the Positive Limit position)

2 WAC ONT? B = 1 // wait to keep moving the axis B, until B stops

2 MVR B -1 // move B down by 1 mm (MoVe Relative distance)

2 WAC ONT? B = 1

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2 MVR C 0 // move C to align with 0 degree
2 WAC ONT? C = 1
0 LOOP 10
2 MVR A 0.2 // set step of radius
2 WAC ONT? A = 1
2 MVR B -0.72 // move the needle to the surface of the silicon and draw the circles
2 WAC ONT? B = 1
2 VEL C 10 // set speed of spinning
2 MVR C 360 // set angle of spinning, 360 for one circle
2 WAC ONT? C = 1
2 MVR B 0.72 // drive the needle away from the surface
2 WAC ONT? B = 1
```

Back to home

```
2 GOH A // go back to home position
2 WAC ONT? A = 1 // wait to keep moving the axis A, until A stops
2 MPL B // move axis B to the top ( Move to the Positive Limit position )
2 WAC ONT? B = 1 // wait to keep moving the axis B, until B stops
2 MVR B -1 // move B down by 1 mm ( MoVe Relative distance )
2 WAC ONT? B = 1
2 MVR C 0 // move C to align with 0 degree
2 WAC ONT? C = 1
```