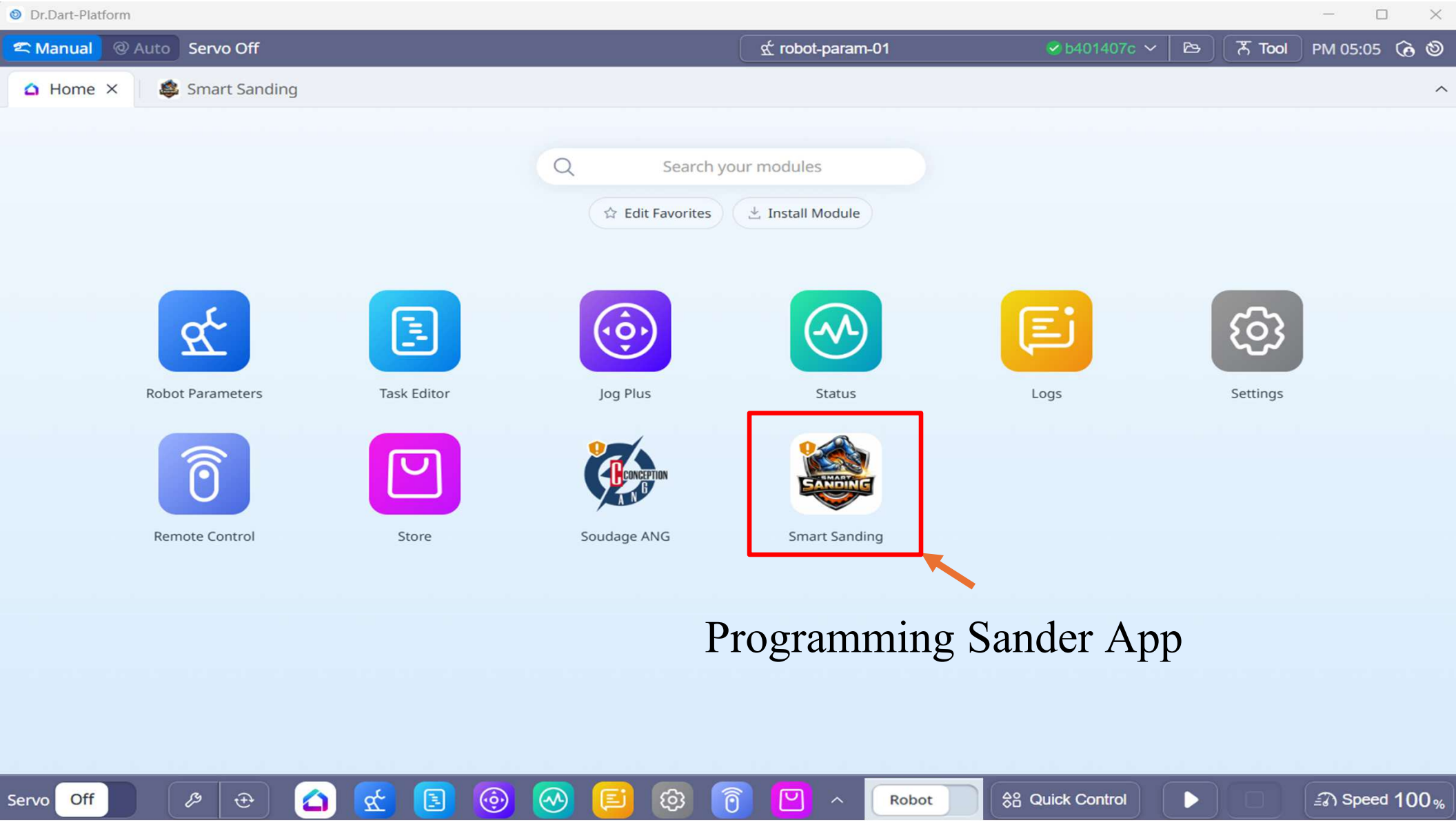
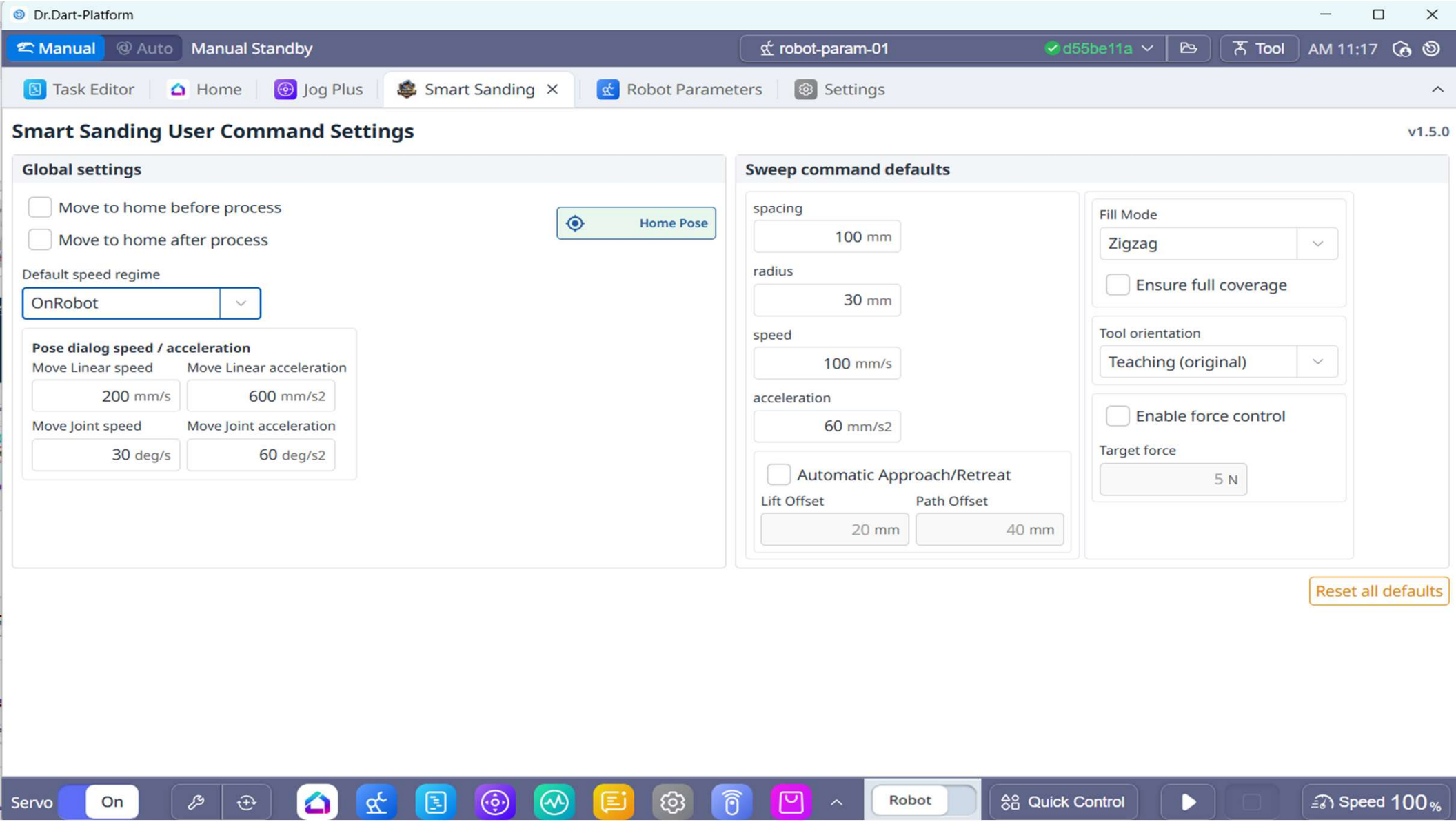
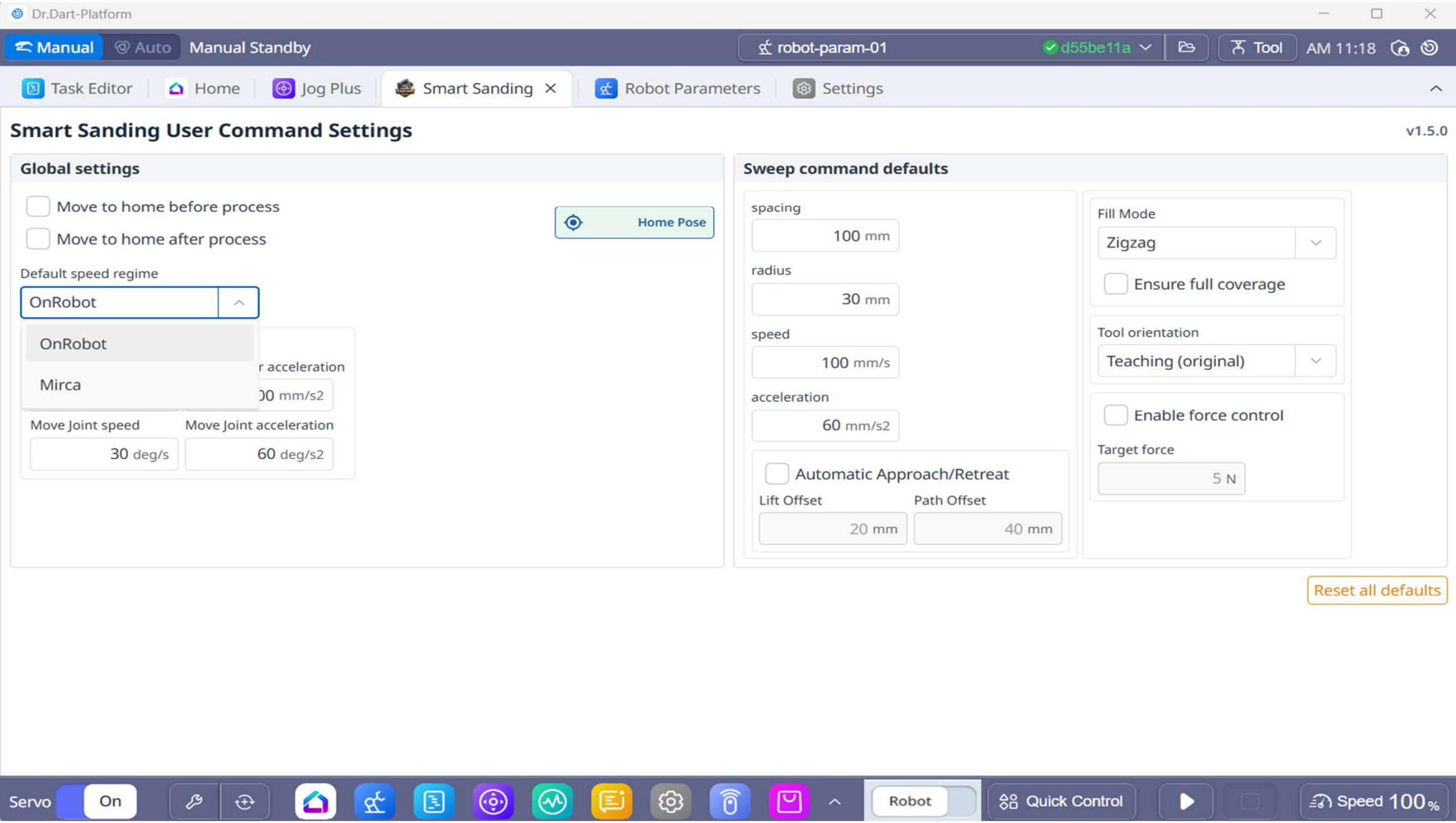
Presentation
SMART SANDER



Programming Sander App


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 11:17
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Default speed regime
OnRobot
Pose dialog speed / acceleration
Move Linear speed
200 mm/s
Move Linear acceleration
600 mm/s2
Move Joint speed
30 deg/s
Move Joint acceleration
60 deg/s2
Sweep command defaults
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s2
Automatic Approach/Retreat
Lift Offset
20 mm
Path Offset
40 mm
Fill Mode
Zigzag
Ensure full coverage
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Reset all defaults
Servo
On
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
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Tool
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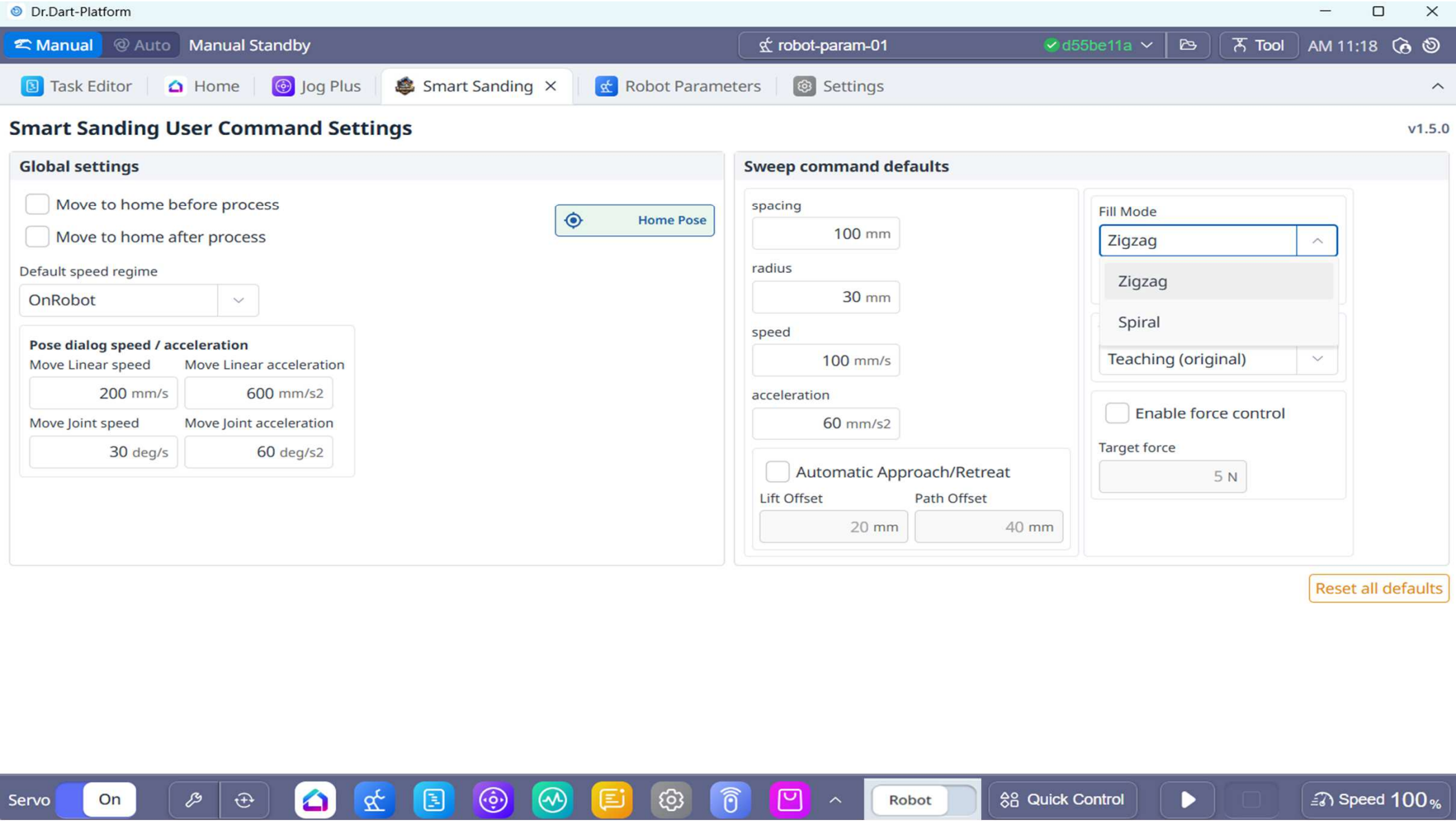
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Default speed regime
OnRobot
OnRobot
Mirca
r acceleration
00 mm/s2
Move Joint speed
30 deg/s
Move Joint acceleration
60 deg/s2
Sweep command defaults
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s2
Automatic Approach/Retreat
Lift Offset
20 mm
Path Offset
40 mm
Fill Mode
Zigzag
Ensure full coverage
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Reset all defaults
Servo
On
Robot
Quick Control
Speed 100%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Tool
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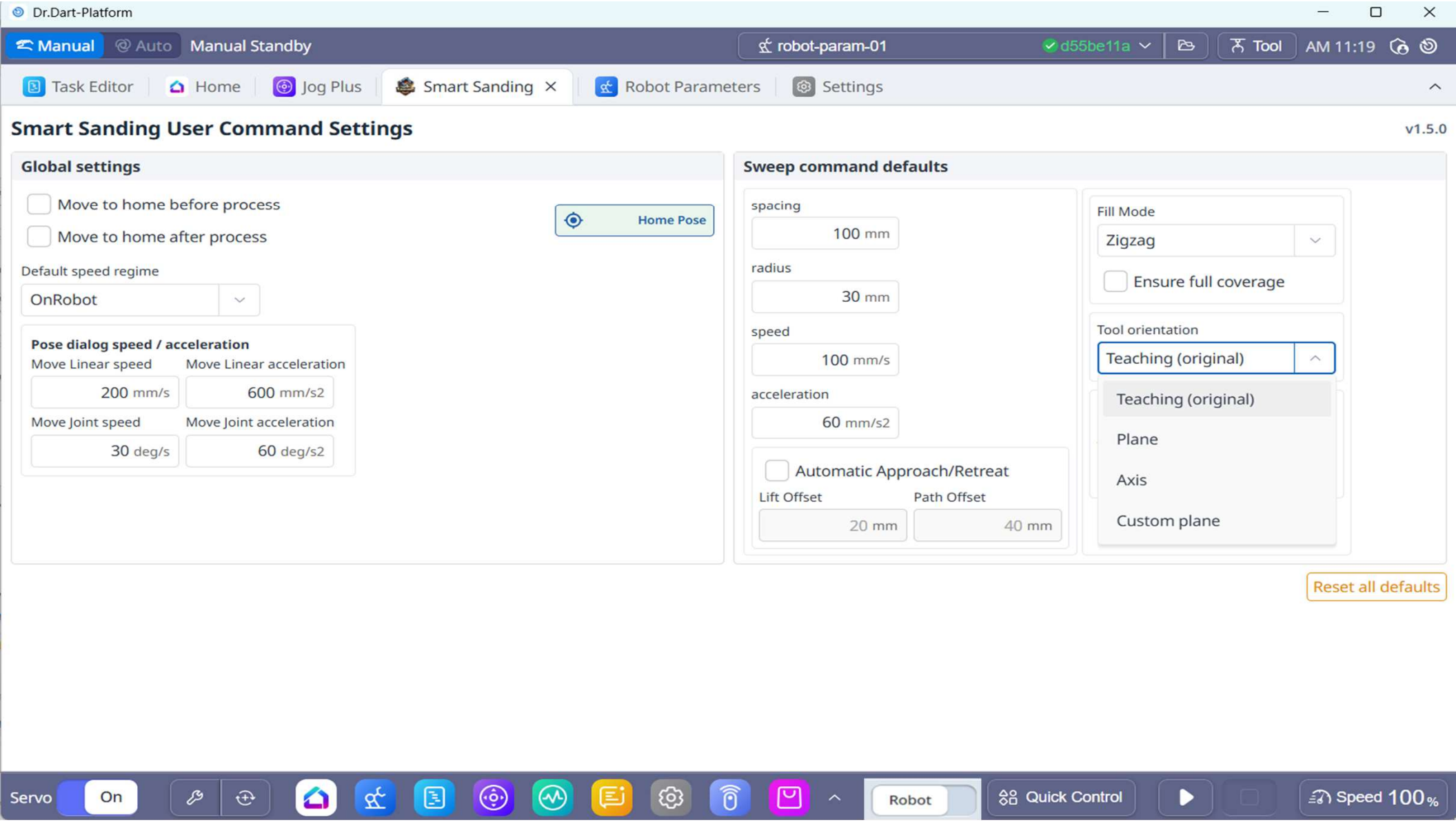
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Default speed regime
OnRobot
Pose dialog speed / acceleration
Move Linear speed
200 mm/s
Move Linear acceleration
600 mm/s2
Move Joint speed
30 deg/s
Move Joint acceleration
60 deg/s2
Sweep command defaults
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s2
Automatic Approach/Retreat
Lift Offset
20 mm
Path Offset
40 mm
Fill Mode
Zigzag
Zigzag
Spiral
Teaching (original)
Enable force control
Target force
5 N
Reset all defaults
Servo
On
Robot
Quick Control
Speed 100%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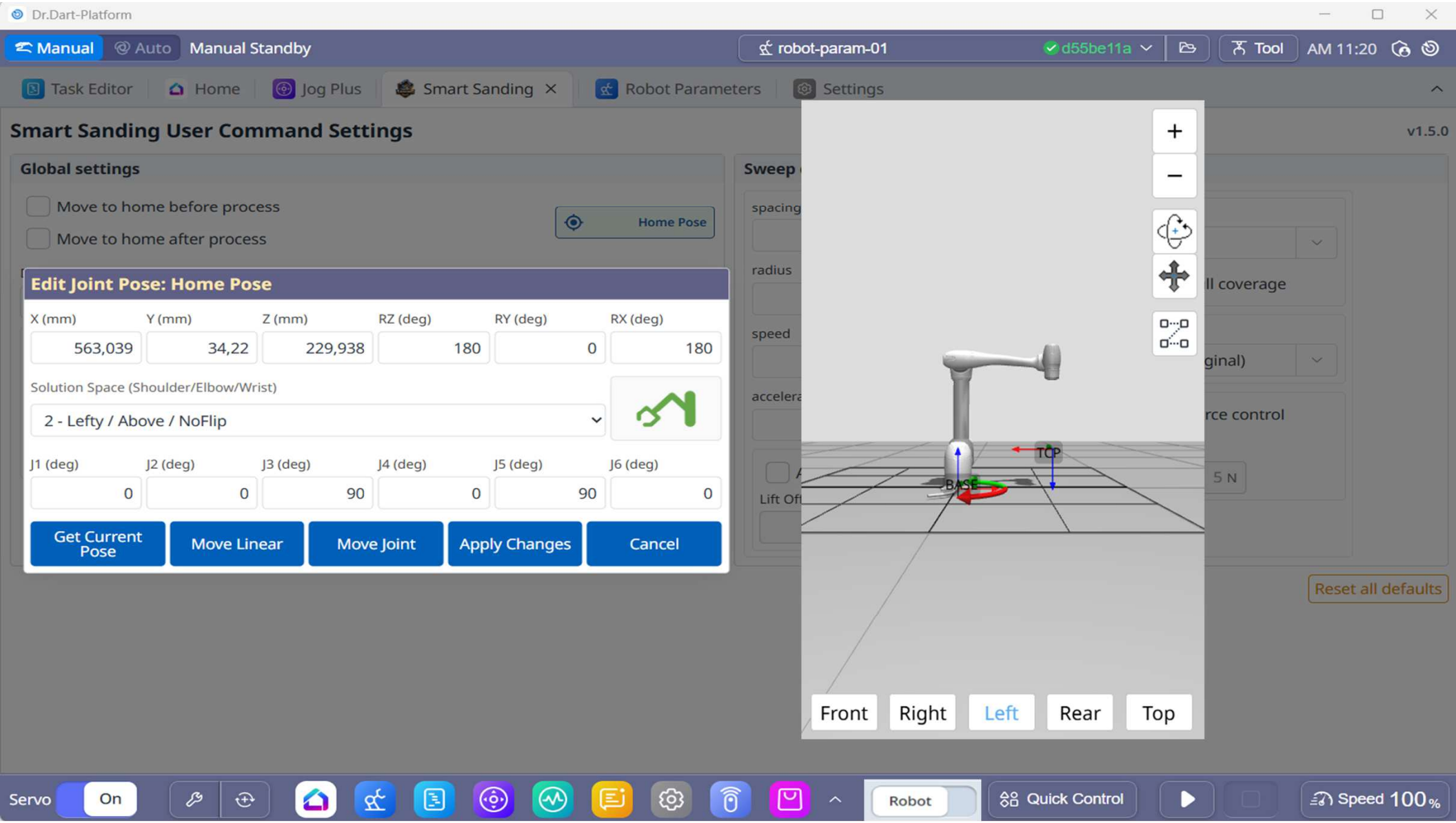
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Default speed regime
OnRobot
Pose dialog speed / acceleration
Move Linear speed
200 mm/s
Move Linear acceleration
600 mm/s2
Move Joint speed
30 deg/s
Move Joint acceleration
60 deg/s2
Sweep command defaults
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s2
Automatic Approach/Retreat
Lift Offset
20 mm
Path Offset
40 mm
Fill Mode
Zigzag
Ensure full coverage
Tool orientation
Teaching (original)
Teaching (original)
Plane
Axis
Custom plane
Reset all defaults
Servo
On
Robot
Quick Control
Speed 100 %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Auto
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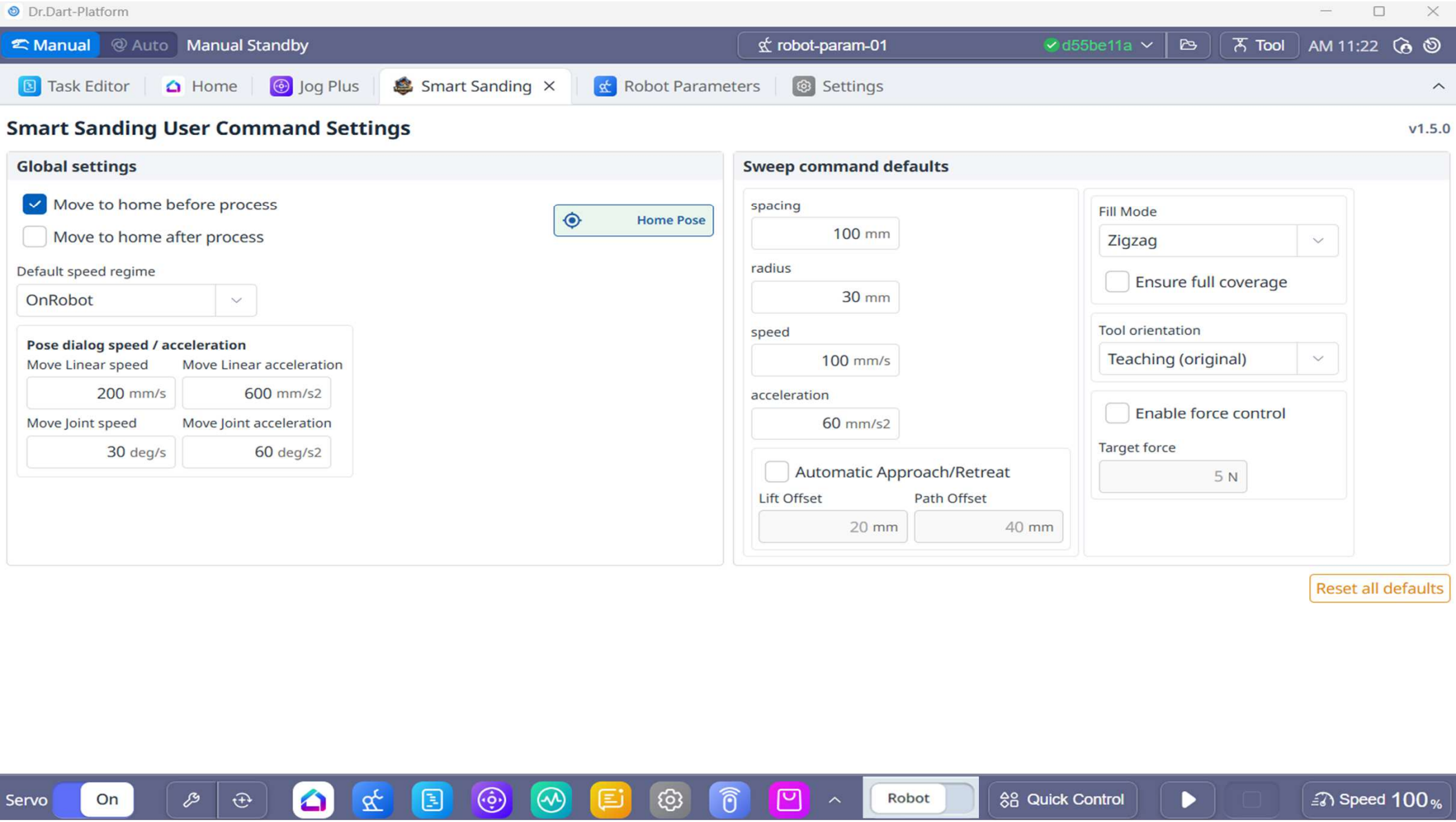
Tool
AM 11:20
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Edit Joint Pose: Home Pose
X (mm)
Y (mm)
Z (mm)
RZ (deg)
RY (deg)
RX (deg)
563,039
34,22
229,938
180
0
180
Solution Space (Shoulder/Elbow/Wrist)
2 - Lefty / Above / NoFlip
J1 (deg)
J2 (deg)
J3 (deg)
J4 (deg)
J5 (deg)
J6 (deg)
0
0
90
0
90
0
Get Current Pose
Move Linear
Move Joint
Apply Changes
Cancel
Sweep
spacing
radius
speed
Reset all defaults
TCP
BASE
Front
Right
Left
Rear
Top
Servo
On
Robot
Quick Control
Speed 100%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Manual
Auto
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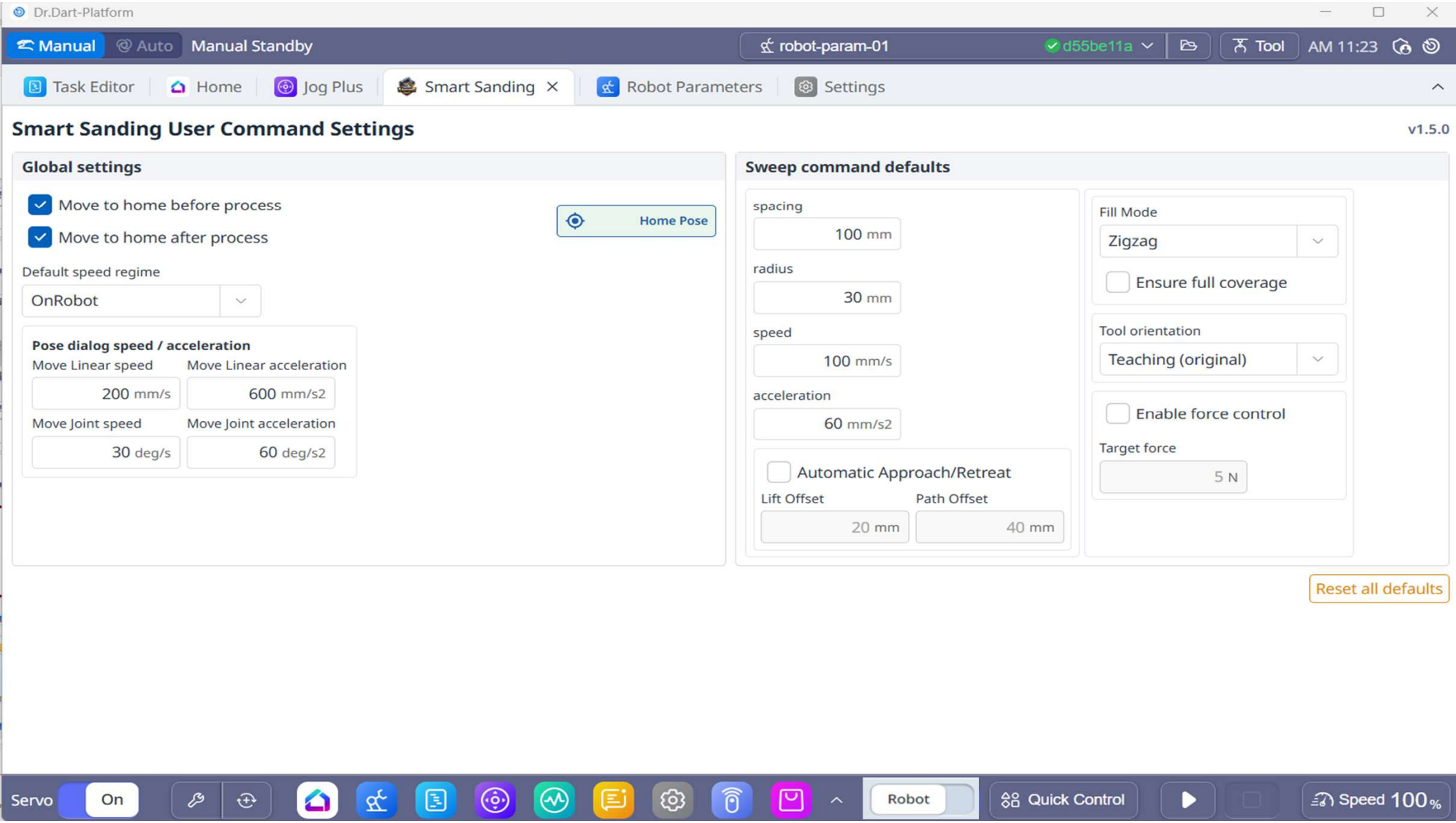
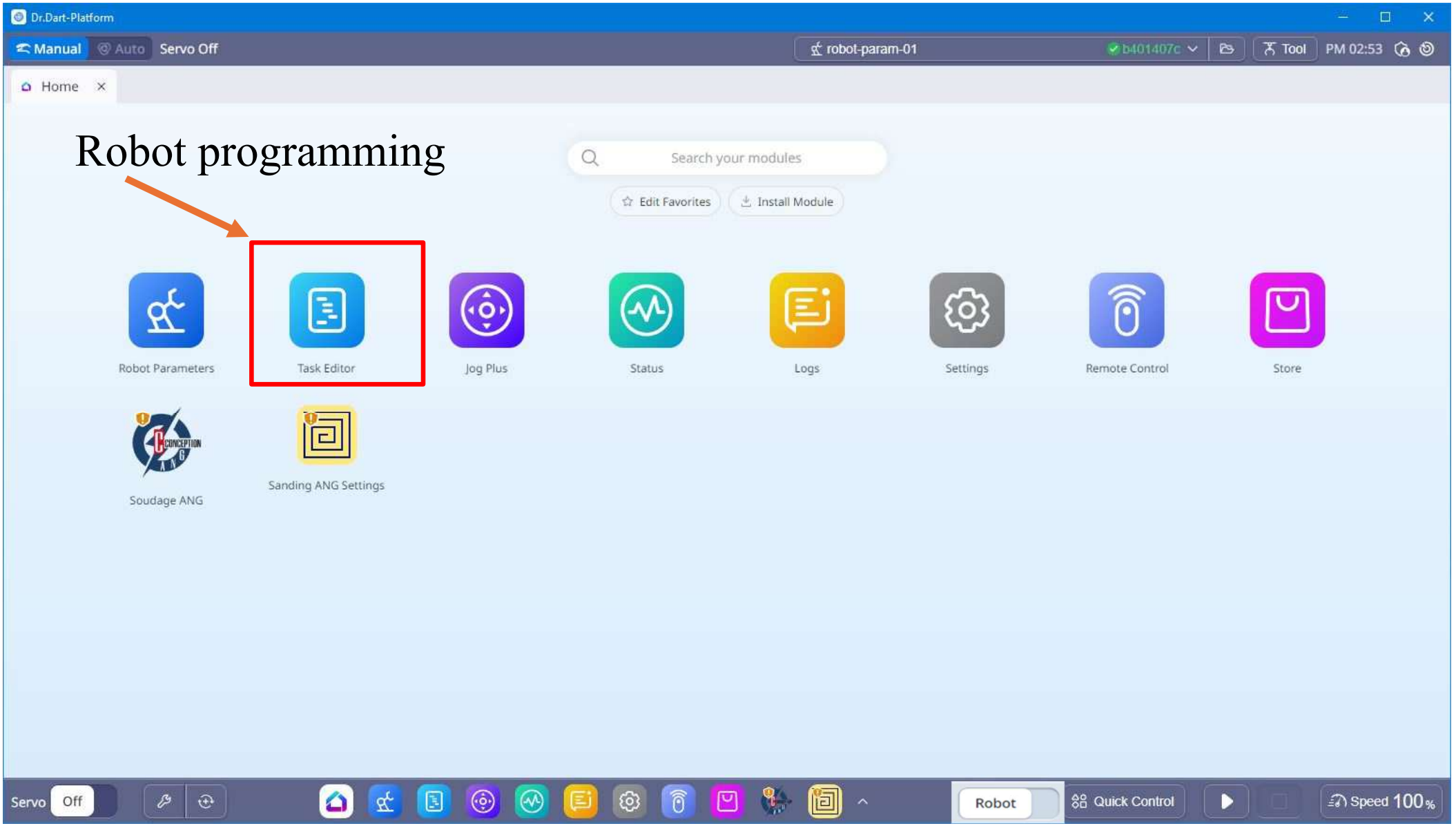
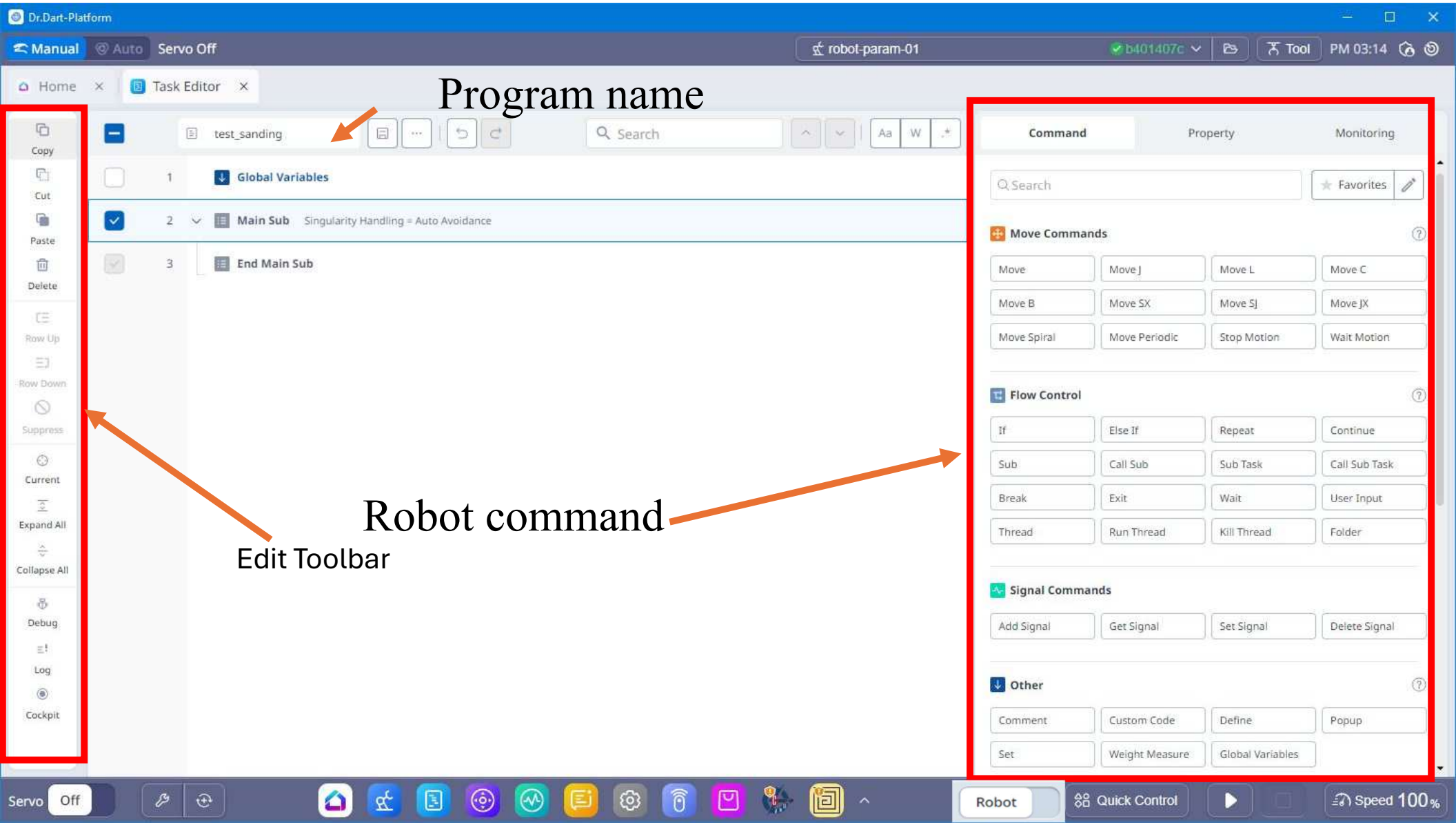
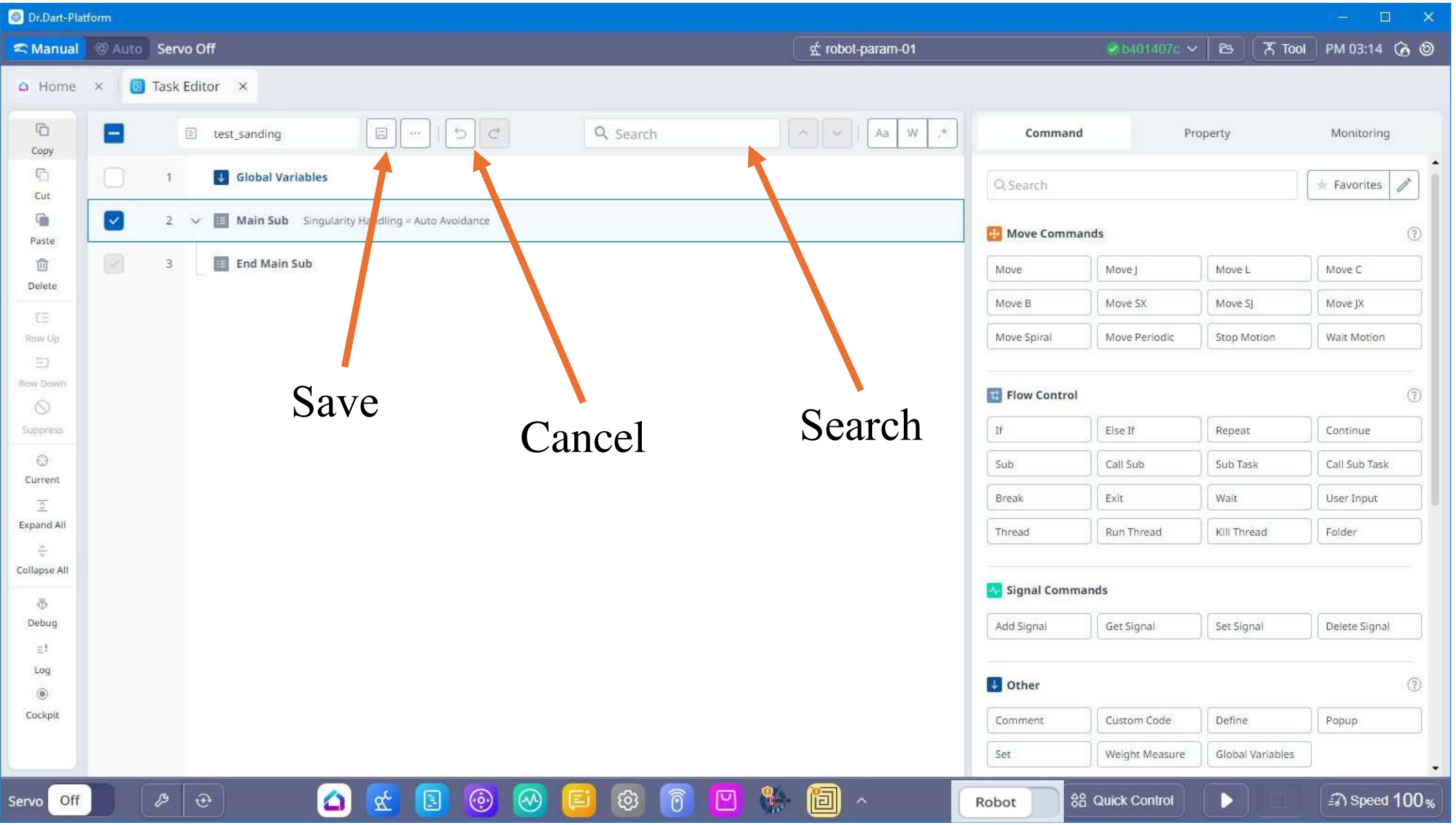
robot-param-01
d55be11a
Tool
AM 11:22
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Default speed regime
OnRobot
Pose dialog speed / acceleration
Move Linear speed
200 mm/s
Move Linear acceleration
600 mm/s2
Move Joint speed
30 deg/s
Move Joint acceleration
60 deg/s2
Sweep command defaults
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s2
Automatic Approach/Retreat
Lift Offset
20 mm
Path Offset
40 mm
Fill Mode
Zigzag
Ensure full coverage
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Reset all defaults
Servo
On
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 11:23
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Smart Sanding User Command Settings
v1.5.0
Global settings
Move to home before process
Move to home after process
Home Pose
Default speed regime
OnRobot
Pose dialog speed / acceleration
Move Linear speed
200 mm/s
Move Linear acceleration
600 mm/s2
Move Joint speed
30 deg/s
Move Joint acceleration
60 deg/s2
Sweep command defaults
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s2
Automatic Approach/Retreat
Lift Offset
20 mm
Path Offset
40 mm
Fill Mode
Zigzag
Ensure full coverage
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Reset all defaults
Servo
On
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Servo Off
robot-param-01
b401407c
Tool
PM 02:53
Home
Robot programming
Search your modules
Edit Favorites
Install Module
Robot Parameters
Task Editor
Jog Plus
Status
Logs
Settings
Remote Control
Store
Soudage ANG
Sanding ANG Settings
Servo
Off
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Servo Off
robot-param-01
Tool
PM 03:14
Home
Task Editor
Program name
test_sanding
Search
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 End Main Sub
Edit Toolbar
Robot command
Command
Property
Monitoring
Search
Favorites
Move Commands
Move
Move J
Move L
Move C
Move B
Move SX
Move SJ
Move JX
Move Spiral
Move Periodic
Stop Motion
Wait Motion
Flow Control
If
Else If
Repeat
Continue
Sub
Call Sub
Sub Task
Call Sub Task
Break
Exit
Wait
User Input
Thread
Run Thread
Kill Thread
Folder
Signal Commands
Add Signal
Get Signal
Set Signal
Delete Signal
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Servo
Off
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
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Servo Off
robot-param-01
b401407c
Tool
PM 03:14
Home
Task Editor
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Row Up
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Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
test_sanding
Search
Aa
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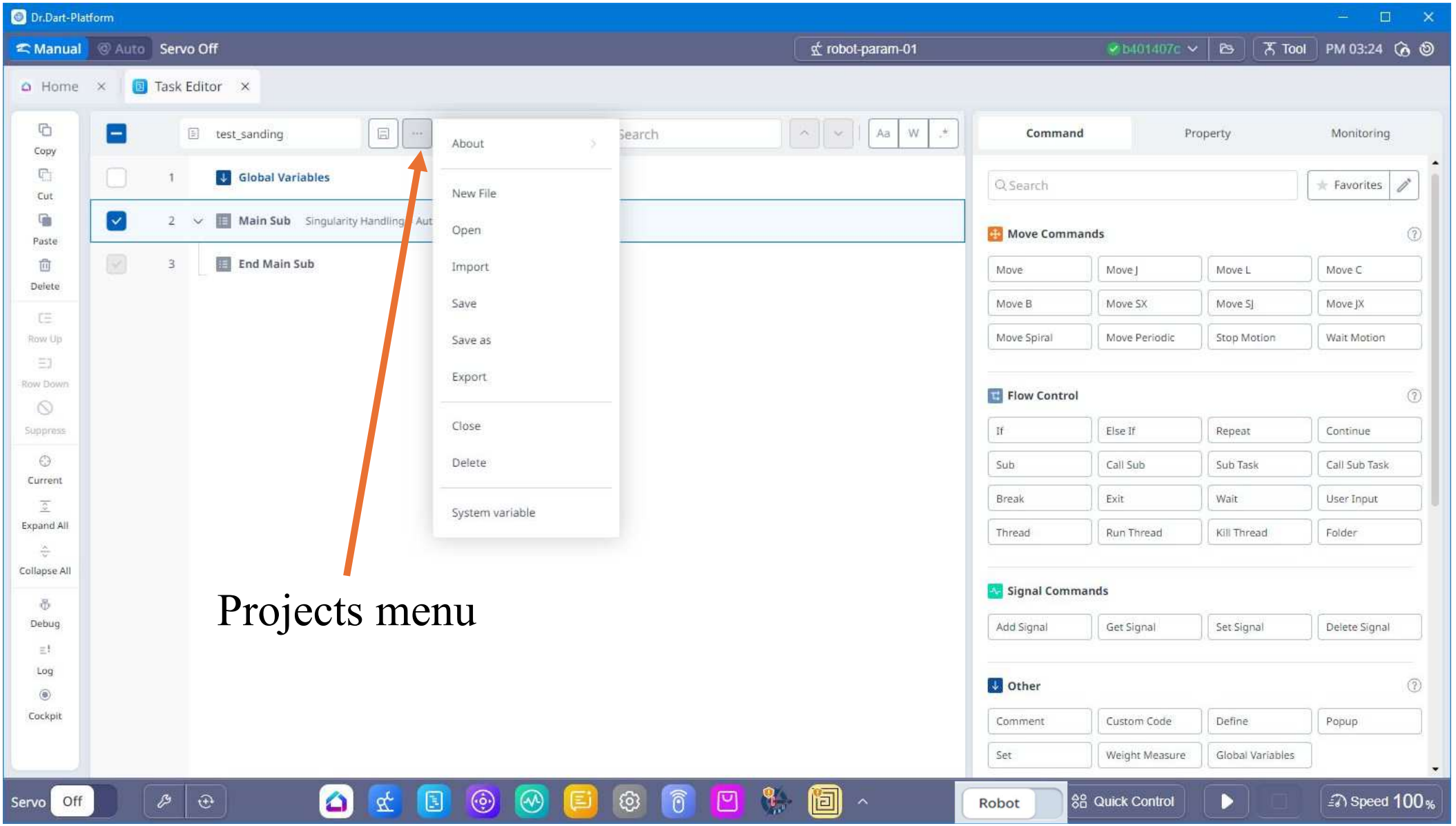
1
Global Variables
2
Main Sub
Singularity Handling = Auto Avoidance
3
End Main Sub
Save
Cancel
Search
Command
Property
Monitoring
Search
Favorites
Move Commands
Move
Move J
Move L
Move C
Move B
Move SX
Move SJ
Move JX
Move Spiral
Move Periodic
Stop Motion
Wait Motion
Flow Control
If
Else If
Repeat
Continue
Sub
Call Sub
Sub Task
Call Sub Task
Break
Exit
Wait
User Input
Thread
Run Thread
Kill Thread
Folder
Signal Commands
Add Signal
Get Signal
Set Signal
Delete Signal
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Servo
Off
Robot
Quick Control
Speed 100%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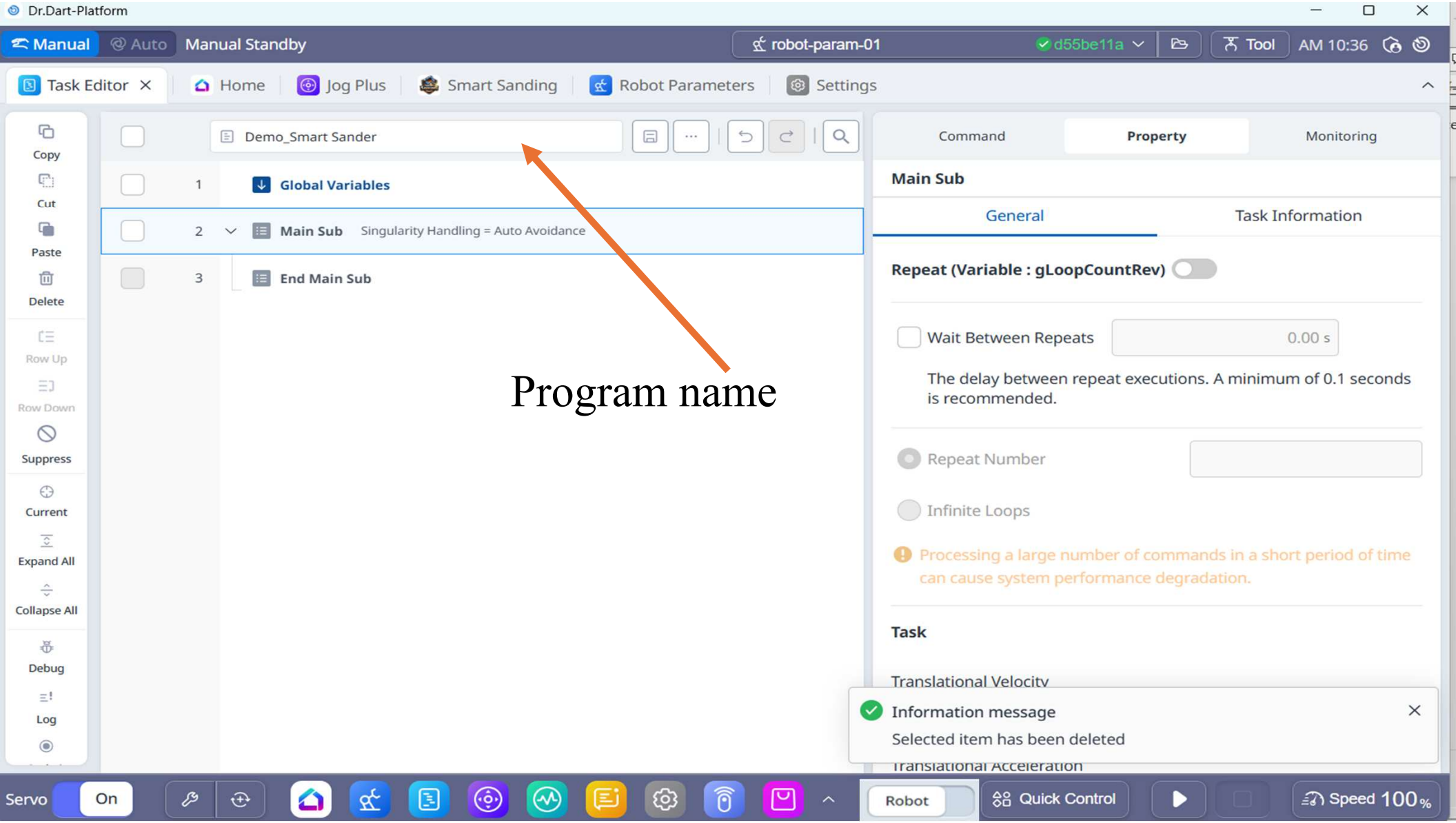
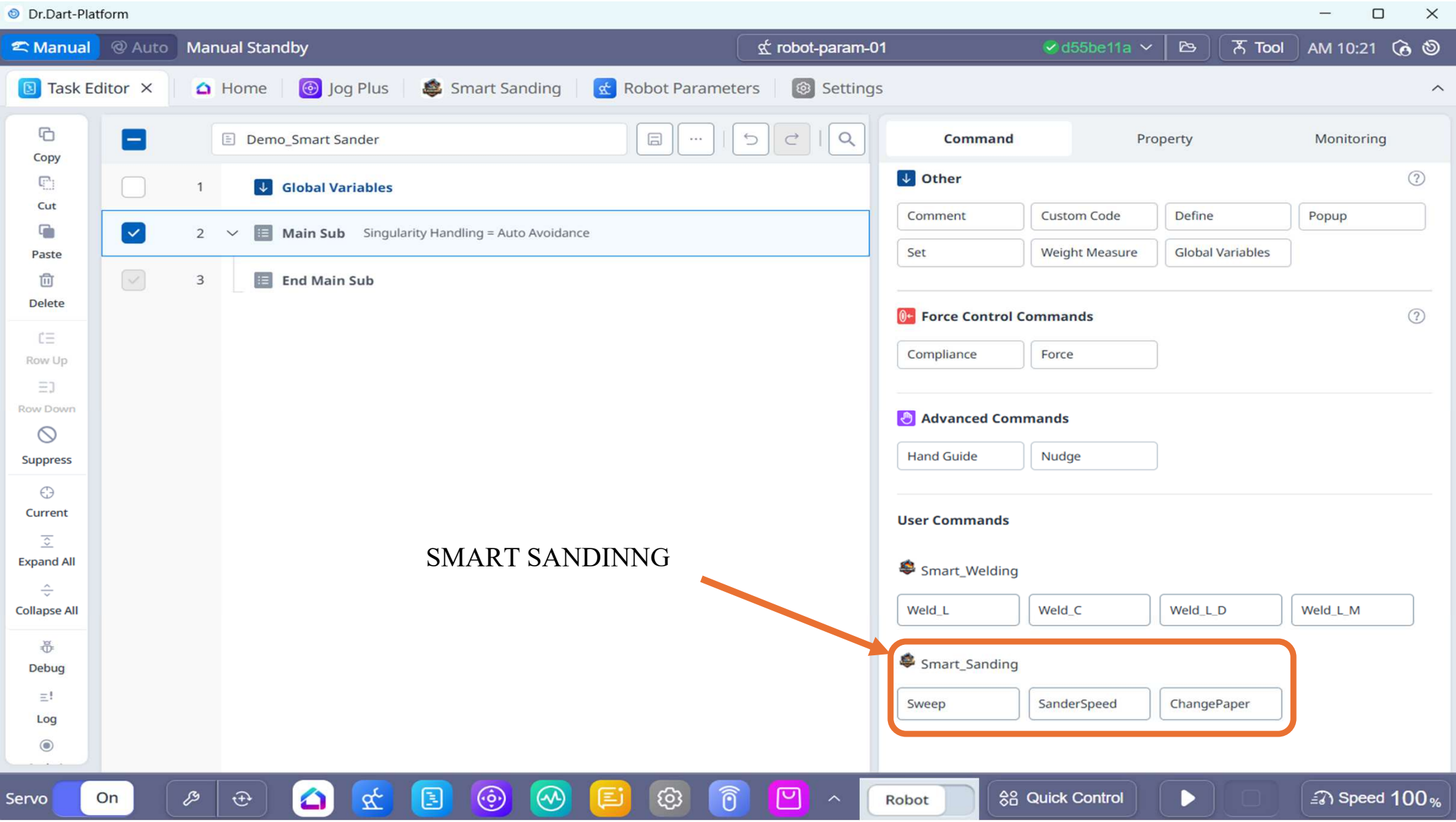
Manual
Auto
Servo Off
robot-param-01
b401407c
Tool
PM 03:24
Home
Task Editor
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
test_sanding
About
New File
Open
Import
Save
Save as
Export
Close
Delete
System variable
1 Global Variables
2 Main Sub Singularity Handling Aut
3 End Main Sub
Command
Property
Monitoring
Search
Favorites
Move Commands
Move
Move J
Move L
Move C
Move B
Move SX
Move SJ
Move JX
Move Spiral
Move Periodic
Stop Motion
Wait Motion
Flow Control
If
Else If
Repeat
Continue
Sub
Call Sub
Sub Task
Call Sub Task
Break
Exit
Wait
User Input
Thread
Run Thread
Kill Thread
Folder
Signal Commands
Add Signal
Get Signal
Set Signal
Delete Signal
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Servo
Off
Robot
Quick Control
Speed 100%
Projects menu

PROGRAMMING

SANDING PATH


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:36
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 End Main Sub
Program name
Command
Property
Monitoring
Main Sub
General
Task Information
Repeat (Variable : gLoopCountRev)
Wait Between Repeats
0.00 s
The delay between repeat executions. A minimum of 0.1 seconds is recommended.
Repeat Number
Infinite Loops
Processing a large number of commands in a short period of time can cause system performance degradation.
Task
Translational Velocity
Information message
Selected item has been deleted
Translational Acceleration
Servo
On
Robot
Quick Control
Speed 100%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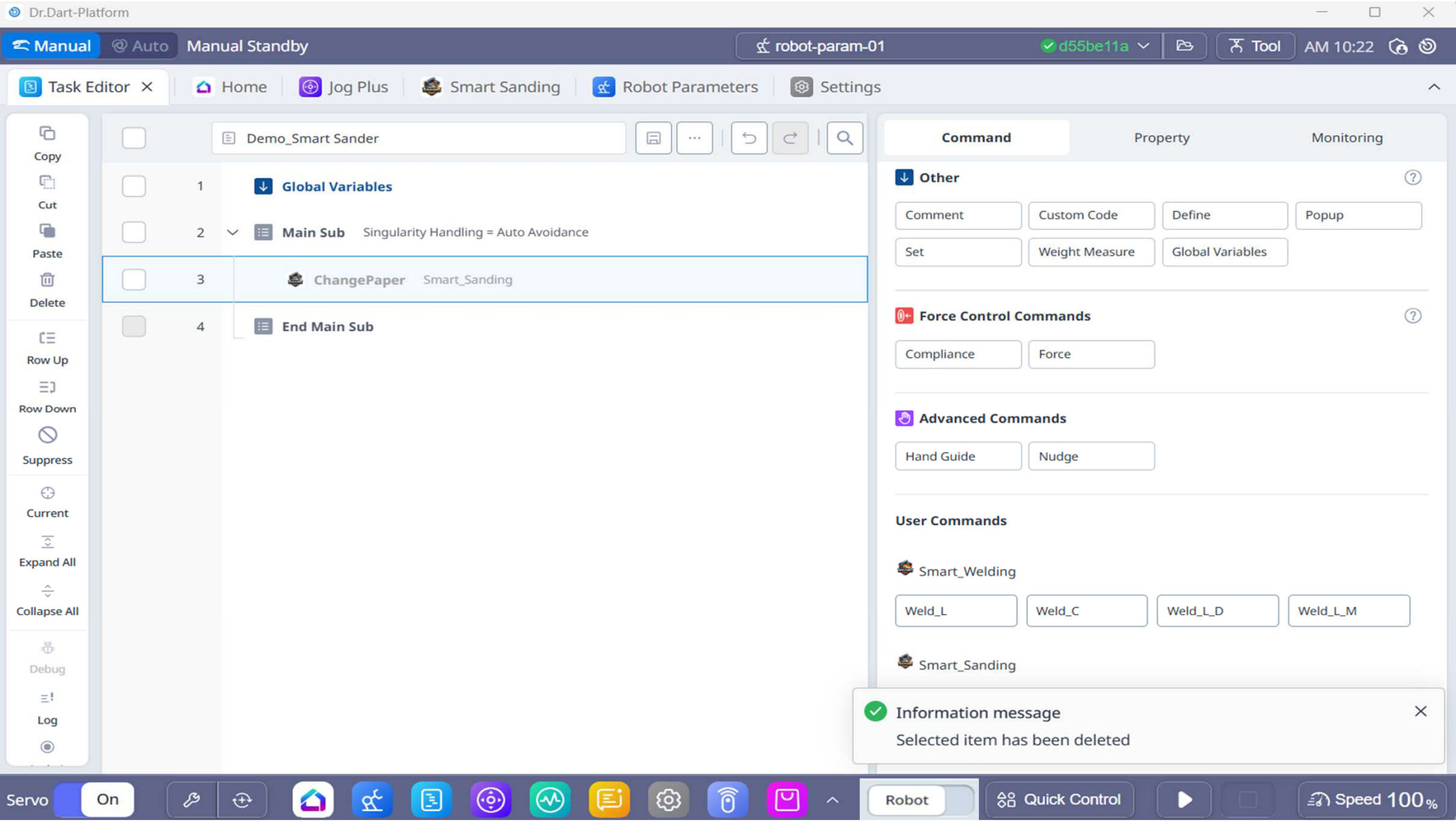
Tool
AM 10:21
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 End Main Sub
Command
Property
Monitoring
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Force Control Commands
Compliance
Force
Advanced Commands
Hand Guide
Nudge
User Commands
Smart_Welding
Weld_L
Weld_C
Weld_L_D
Weld_L_M
Smart_Sanding
Sweep
SanderSpeed
ChangePaper
SMART SANDINNG
Servo
On
Robot
Quick Control
Speed 100%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robot-param-01
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Tool
AM 10:22
Task Editor
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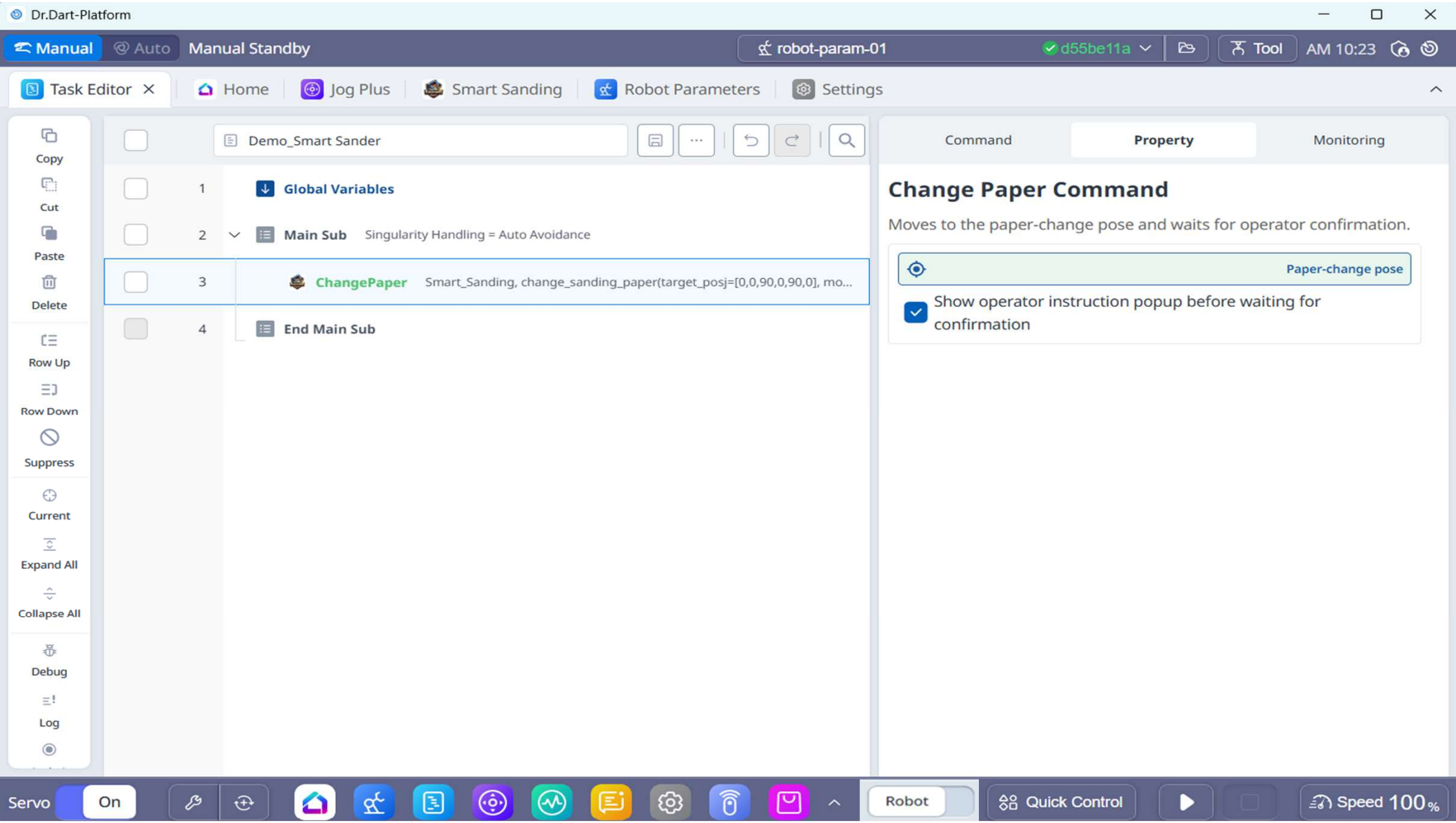
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding
4 End Main Sub
Command
Property
Monitoring
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Force Control Commands
Compliance
Force
Advanced Commands
Hand Guide
Nudge
User Commands
Smart_Welding
Weld_L
Weld_C
Weld_L_D
Weld_L_M
Smart_Sanding
Information message
Selected item has been deleted
Servo
On
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
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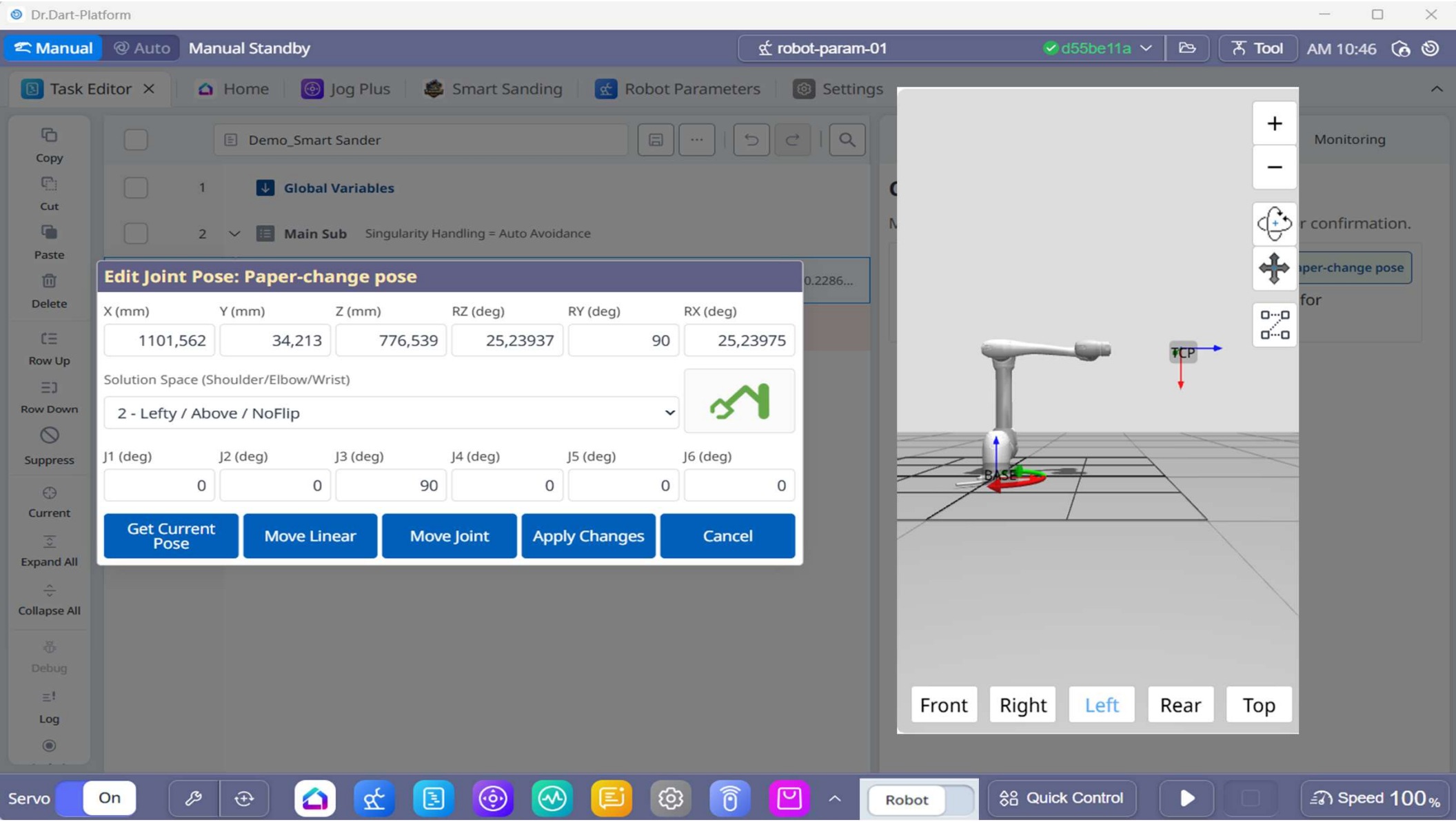
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:23
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[0,0,90,0,90,0], mo...
4 End Main Sub
Command
Property
Monitoring
Change Paper Command
Moves to the paper-change pose and waits for operator confirmation.
Paper-change pose
Show operator instruction popup before waiting for confirmation
Servo
On
Robot
Quick Control
Speed 100%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Manual Standby
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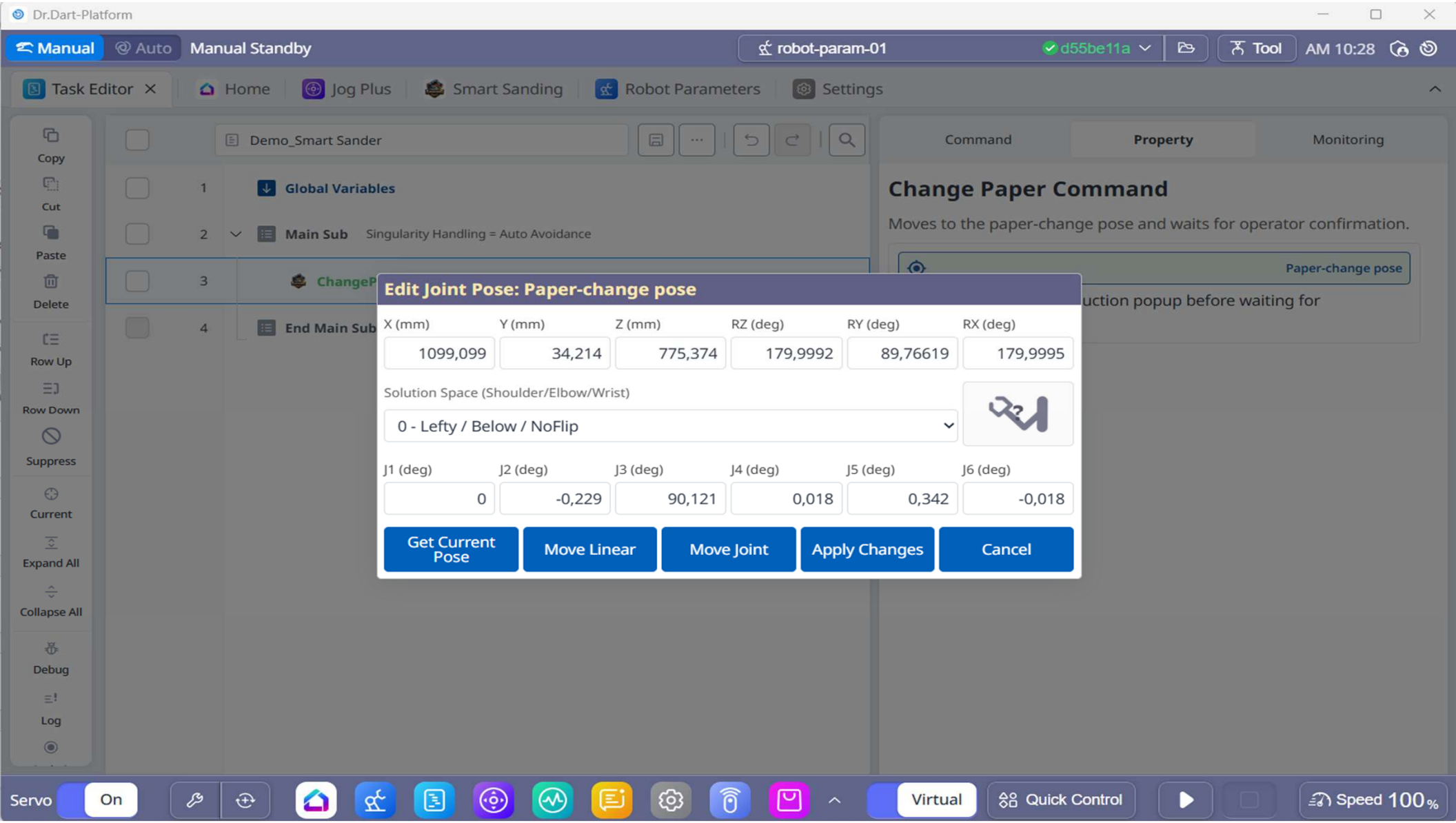
Tool
AM 10:46
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
Monitoring
1
Global Variables
2
Main Sub
Singularity Handling = Auto Avoidance
Edit Joint Pose: Paper-change pose
X (mm)
Y (mm)
Z (mm)
RZ (deg)
RY (deg)
RX (deg)
1101,562
34,213
776,539
25,23937
90
25,23975
Solution Space (Shoulder/Elbow/Wrist)
2 - Lefty / Above / NoFlip
J1 (deg)
J2 (deg)
J3 (deg)
J4 (deg)
J5 (deg)
J6 (deg)
0
0
90
0
0
0
Get Current Pose
Move Linear
Move Joint
Apply Changes
Cancel
TCP
BASE
Front
Right
Left
Rear
Top
Servo
On
Robot
Quick Control
Speed 100%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Auto
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AM 10:28
Task Editor
Home
Jog Plus
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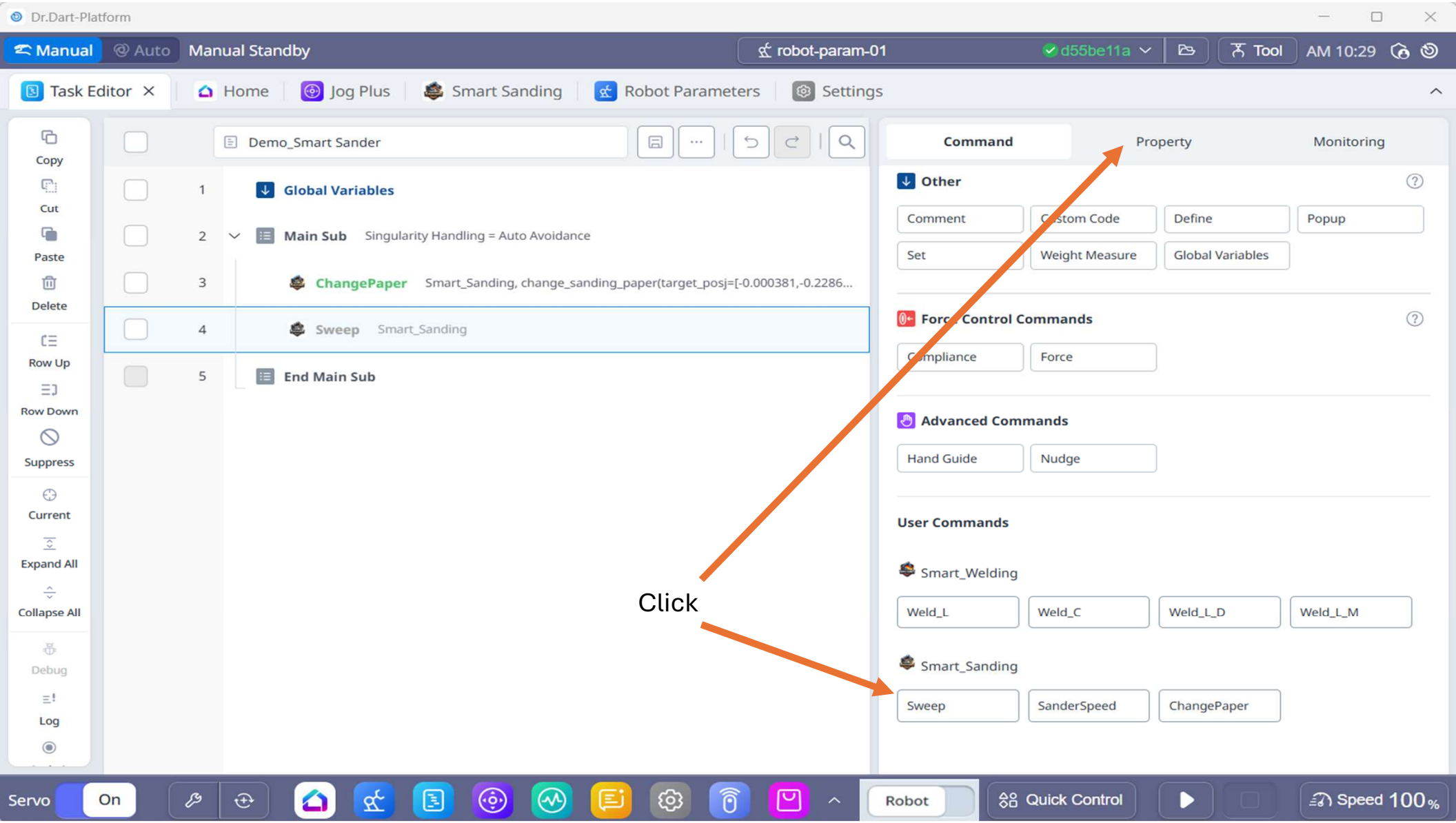
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangeP
4 End Main Sub
Command
Property
Monitoring
Change Paper Command
Moves to the paper-change pose and waits for operator confirmation.
Paper-change pose
uction popup before waiting for
Edit Joint Pose: Paper-change pose
X (mm)
Y (mm)
Z (mm)
RZ (deg)
RY (deg)
RX (deg)
1099,099
34,214
775,374
179,9992
89,76619
179,9995
Solution Space (Shoulder/Elbow/Wrist)
0 - Lefty / Below / NoFlip
J1 (deg)
J2 (deg)
J3 (deg)
J4 (deg)
J5 (deg)
J6 (deg)
0
-0,229
90,121
0,018
0,342
-0,018
Get Current Pose
Move Linear
Move Joint
Apply Changes
Cancel
Servo
On
Virtual
Quick Control
Speed 100%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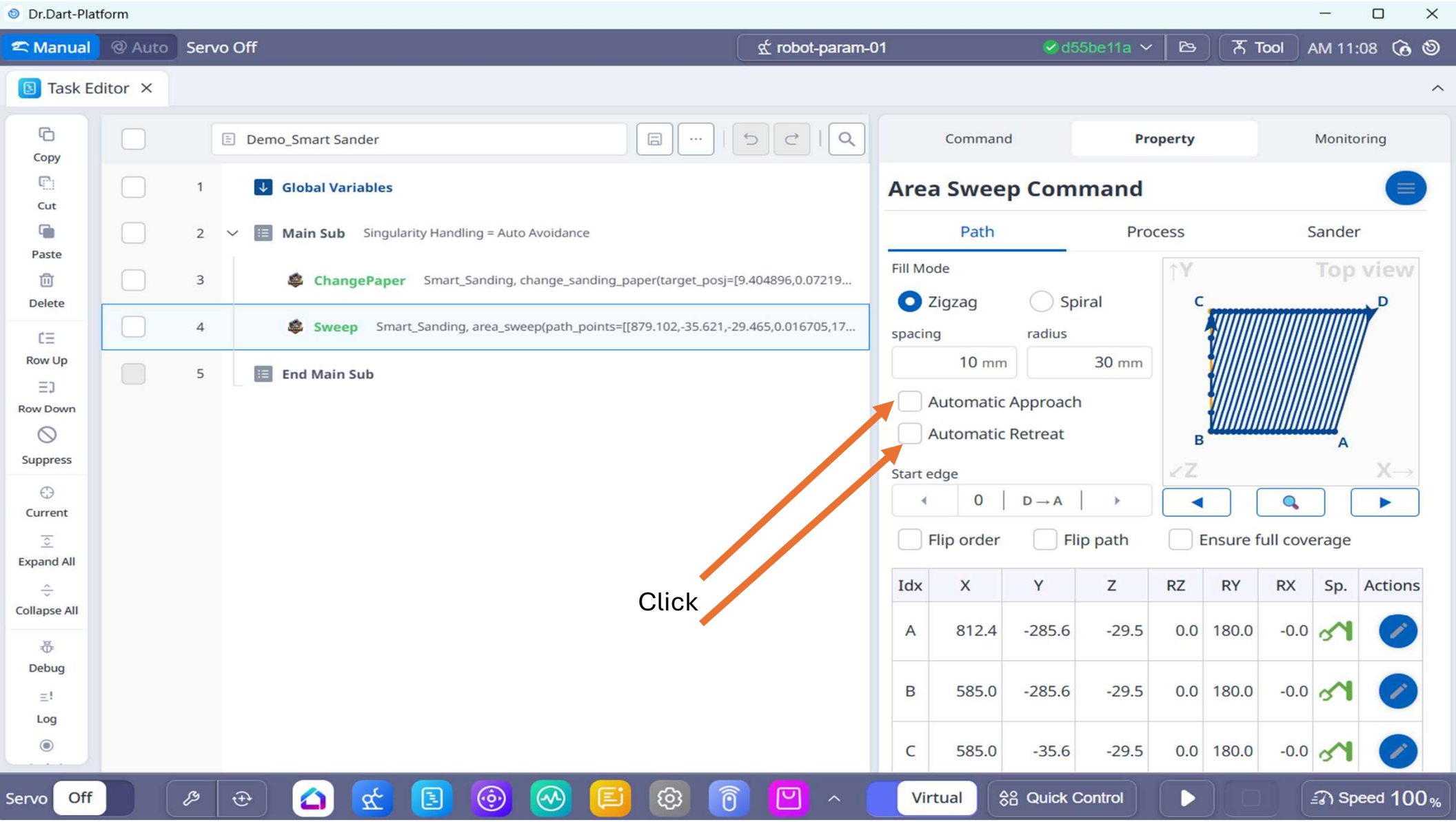
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:29
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Force Control Commands
Compliance
Force
Advanced Commands
Hand Guide
Nudge
User Commands
Smart_Welding
Weld_L
Weld_C
Weld_L_D
Weld_L_M
Smart_Sanding
Sweep
SanderSpeed
ChangePaper
Click
Servo
On
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Servo Off
robot-param-01
d55be11a
Tool
AM 11:08
Task Editor
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[9.404896,0.07219...
4 Sweep Smart_Sanding, area_sweep(path_points=[[879.102,-35.621,-29.465,0.016705,17...
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
Fill Mode
Zigzag
Spiral
spacing
10 mm
radius
30 mm
Automatic Approach
Automatic Retreat
Start edge
0
D → A
Top view
C
D
B
A
Flip order
Flip path
Ensure full coverage
Idx X Y Z RZ RY RX Sp. Actions
A 812.4 -285.6 -29.5 0.0 180.0 -0.0
B 585.0 -285.6 -29.5 0.0 180.0 -0.0
C 585.0 -35.6 -29.5 0.0 180.0 -0.0
Click
Servo Off
Virtual
Quick Control
Speed 100%

Dr.Dart-Platform

Manual | Auto | Servo Off | robot-param-01 | d55be11a | Tool | AM 11:09

Task Editor

Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log

Demo_Smart Sander

1	Global Variables	
2	Main Sub	Singularity Handling = Auto Avoidance
3	ChangePaper	Smart_Sanding, change_sanding_paper(target_posj=[9.404896,0.07219...
4	Sweep	Smart_Sanding, area_sweep(path_points=[[879.102,-35.621,-29.465,0.016705,17...
5	End Main Sub	

Command | Property | Monitoring

Area Sweep Command

Path | Process | Sander

Fill Mode

(•) Zigzag ( ) Spiral

spacing: 10 mm

radius: 30 mm

[x] Automatic Approach

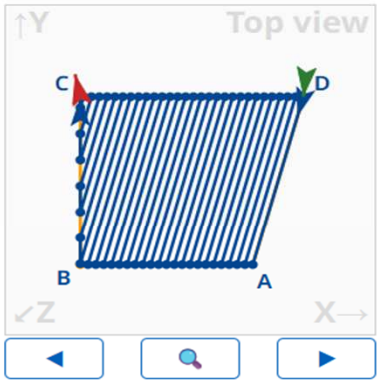
[x] Automatic Retreat

Lift Offset: 20 mm

Path Offset: 40 mm

Start edge: 0 | D → A

[ ] Flip order [ ] Flip path [ ] Ensure full coverage



Idx	X	Y	Z	RZ	RY	RX	Sp.	Actions
A	812.4	-285.6	-29.5	0.0	180.0	-0.0		
B	585.0	-285.6	-29.5	0.0	180.0	-0.0		

Servo Off | Virtual | Quick Control | Speed 100%

Dr.Dart-Platform

Manual | Auto | Servo Off | robot-param-01 | d55be11a | Tool | AM 11:12

Task Editor

Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log

Demo_Smart Sander

1	Global Variables	
2	Main Sub	Singularity Handling = Auto Avoidance
3	ChangePaper	Smart_Sanding, change_sanding_paper(target_posj=[9.404896,0.07219...
4	Sweep	Smart_Sanding, area_sweep(path_points=[[879.102,-35.621,-29.465,0.016705,17...
5	End Main Sub	

Command | Property | Monitoring

Area Sweep Command

Path | Process | Sander

Fill Mode

Zigzag | Spiral

spacing: 10 mm

radius: 30 mm

Automatic Approach

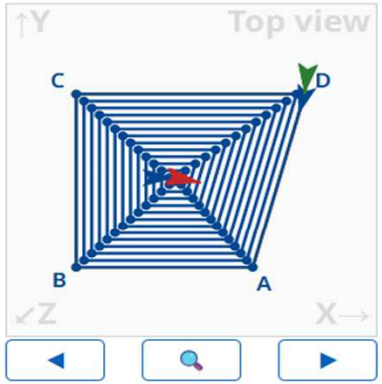
Automatic Retreat

Lift Offset: 20 mm

Path Offset: 40 mm

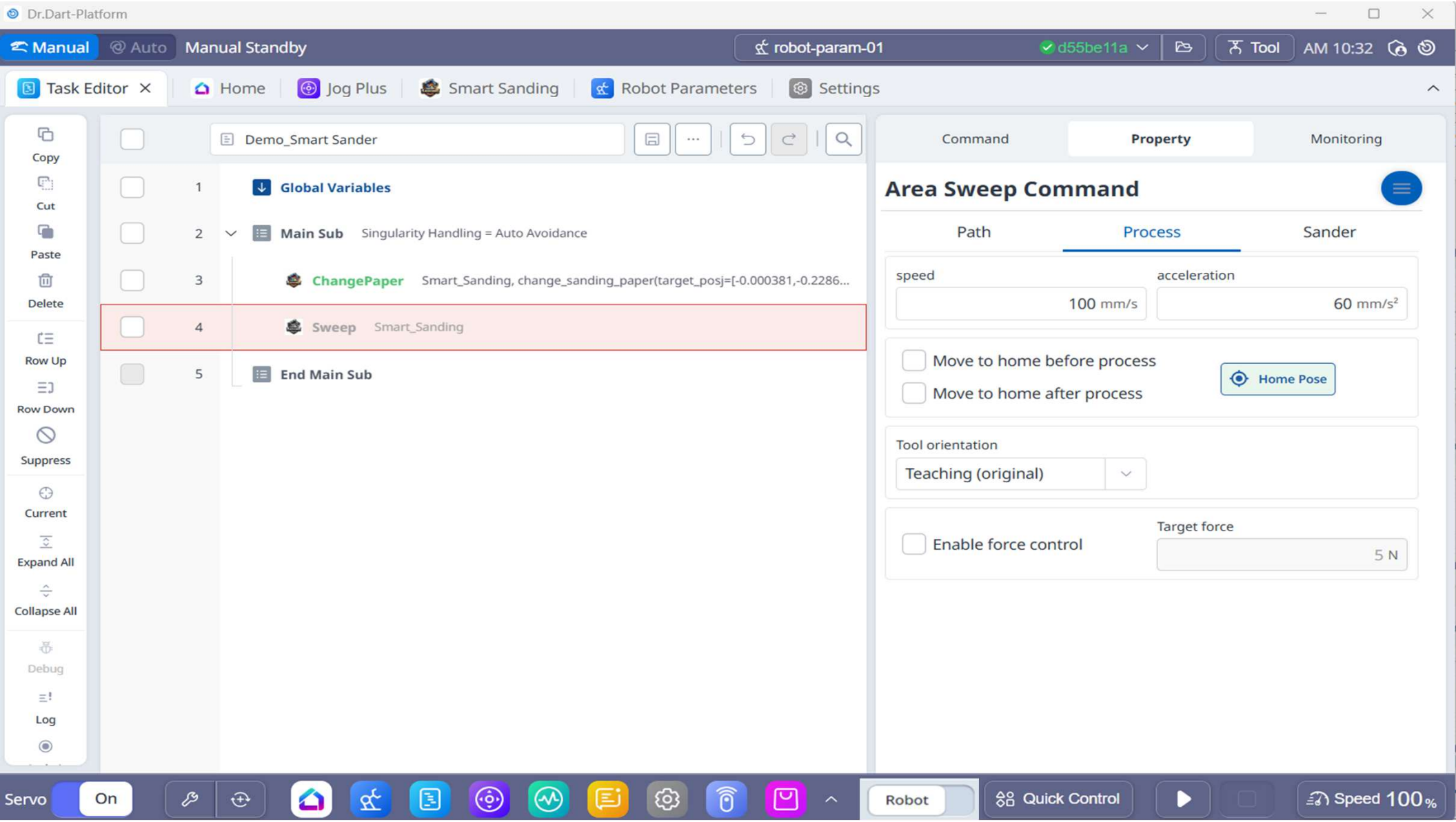
Start edge: 0 | D → A

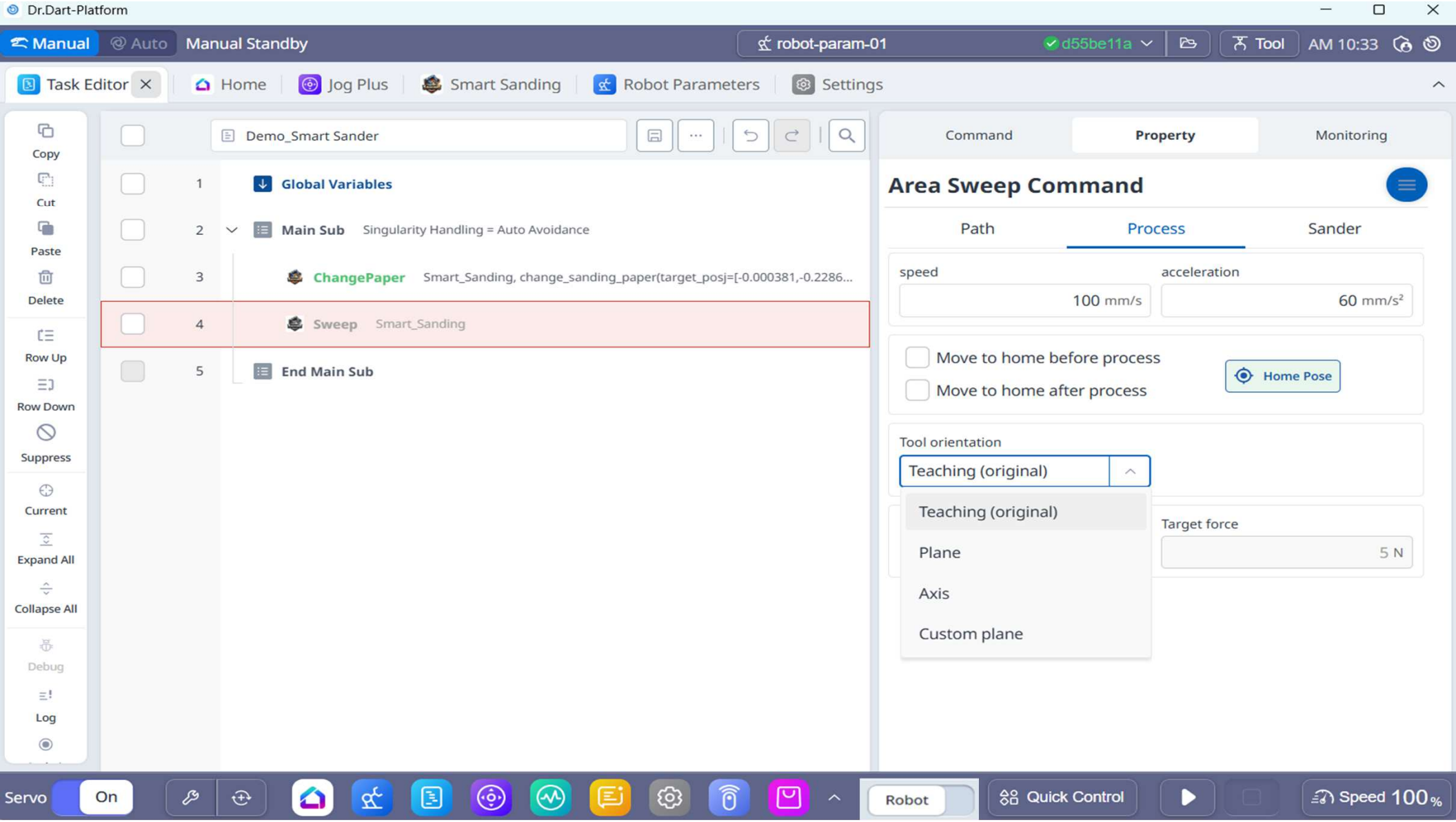
Flip order | Flip path | Ensure full coverage

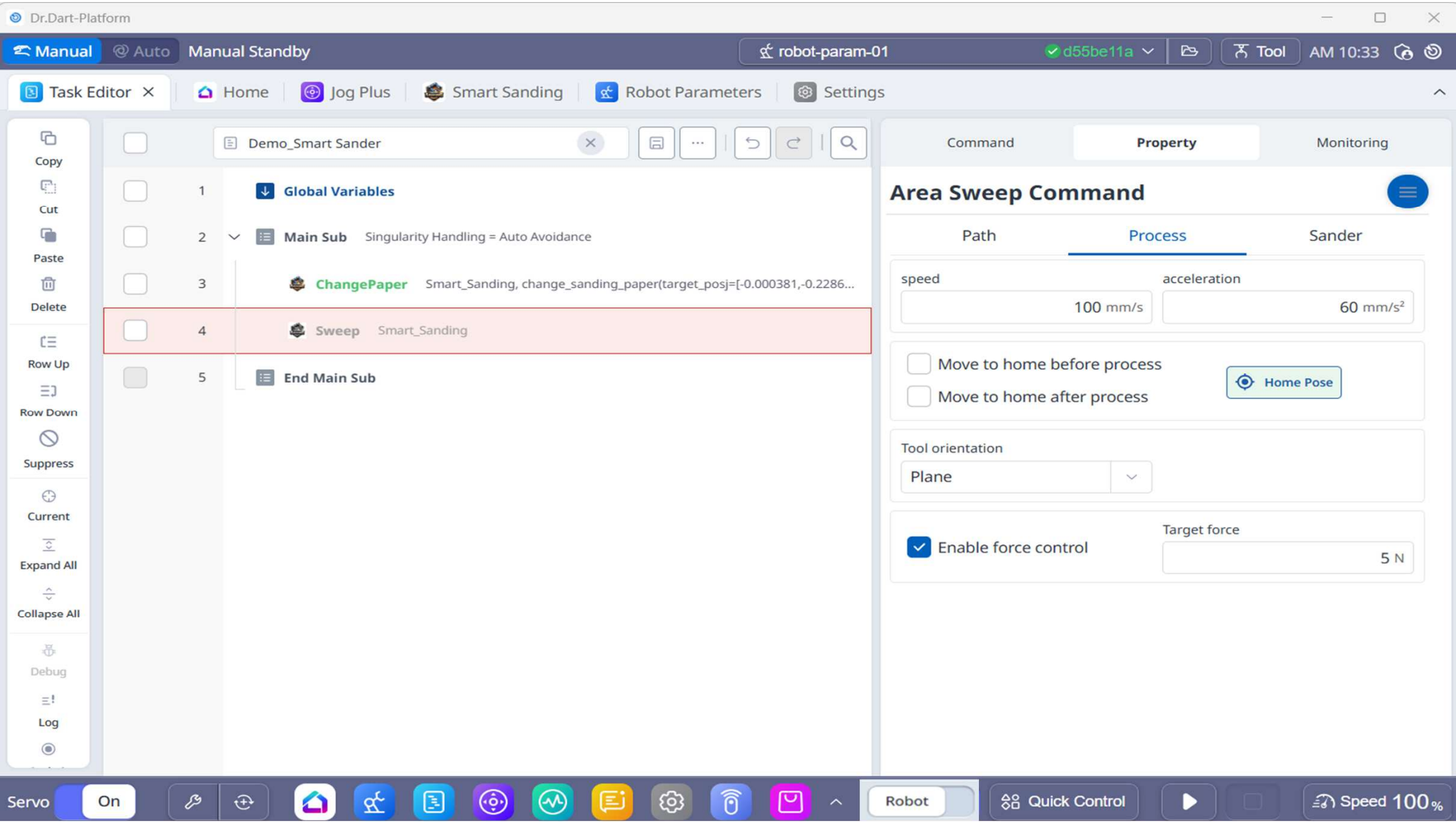


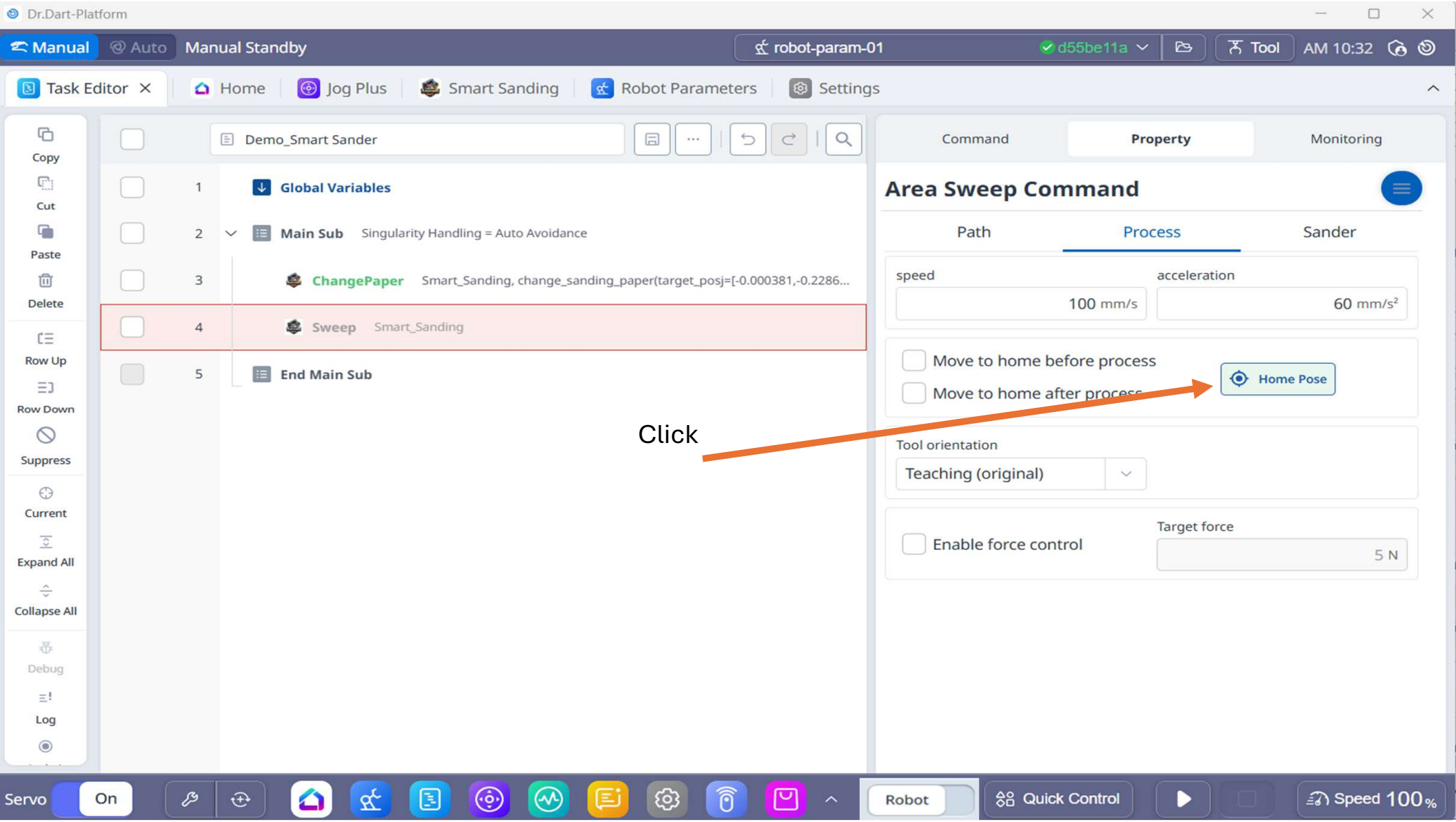
Idx	X	Y	Z	RZ	RY	RX	Sp.	Actions
A	812.4	-285.6	-29.5	0.0	180.0	-0.0		
B	585.0	-285.6	-29.5	0.0	180.0	-0.0		

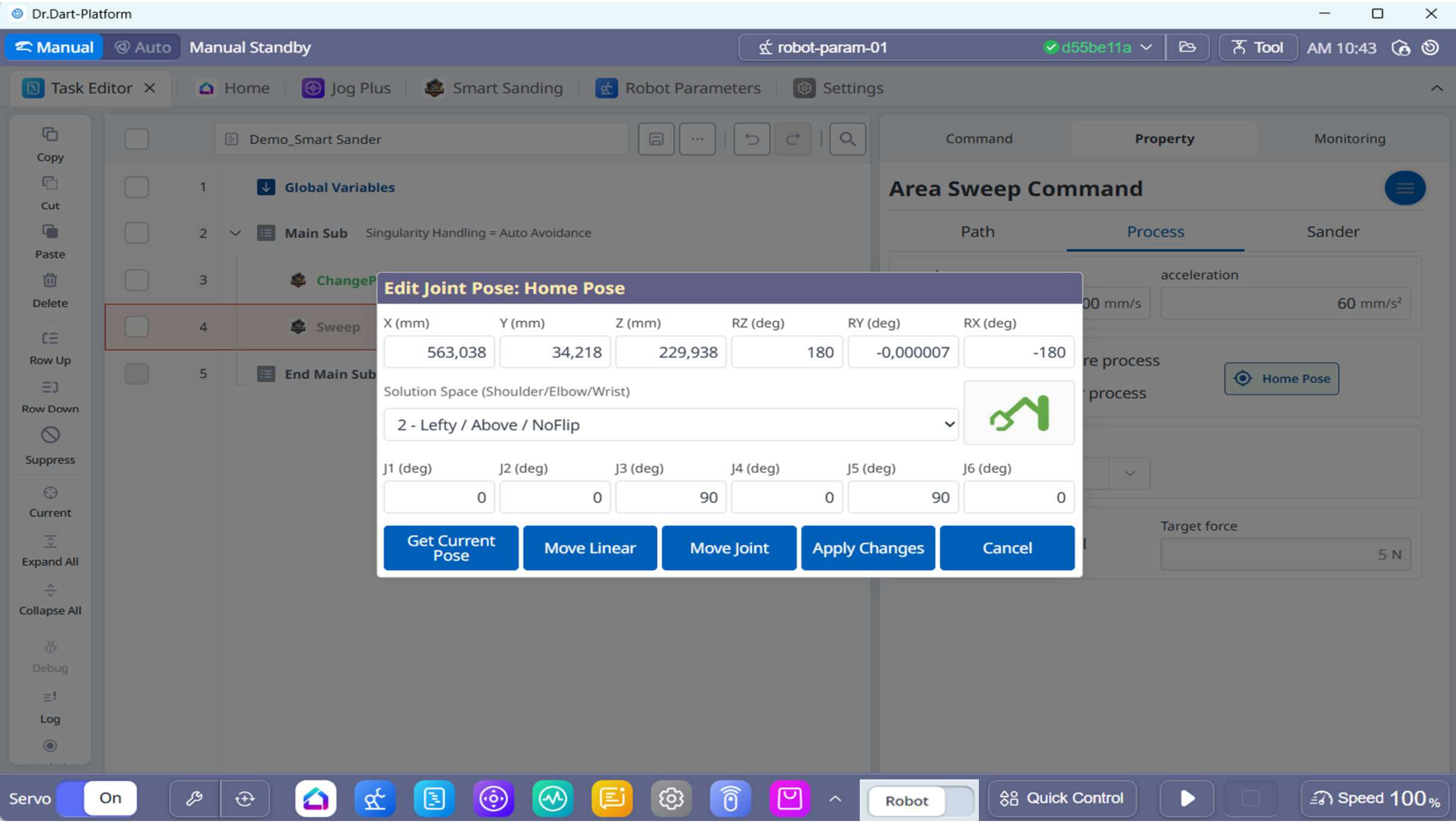
Servo Off | Virtual | Quick Control | Speed 100%

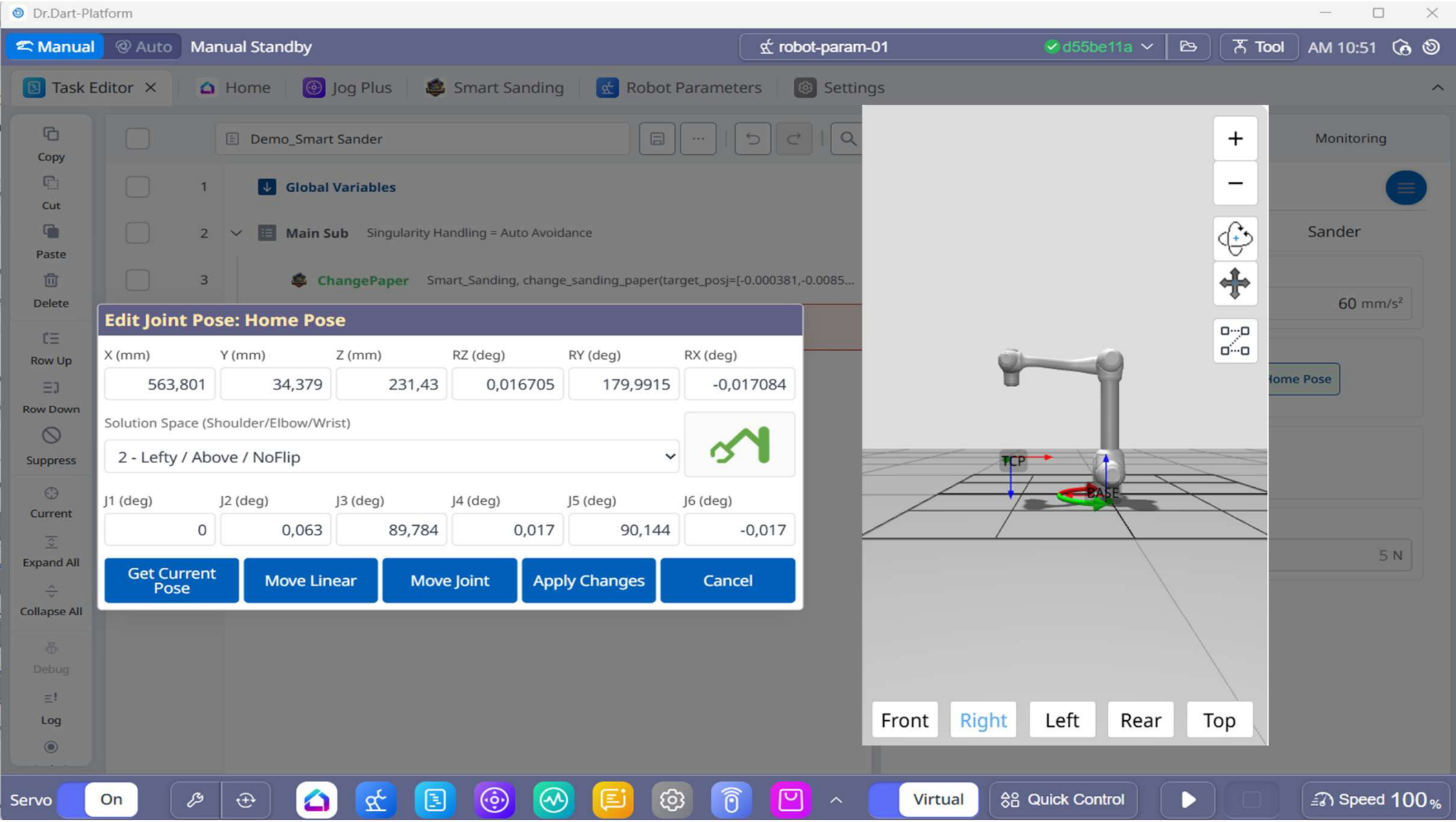

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:32
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
speed
100 mm/s
acceleration
60 mm/s²
Move to home before process
Move to home after process
Home Pose
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Servo
On
Robot
Quick Control
Speed 100%

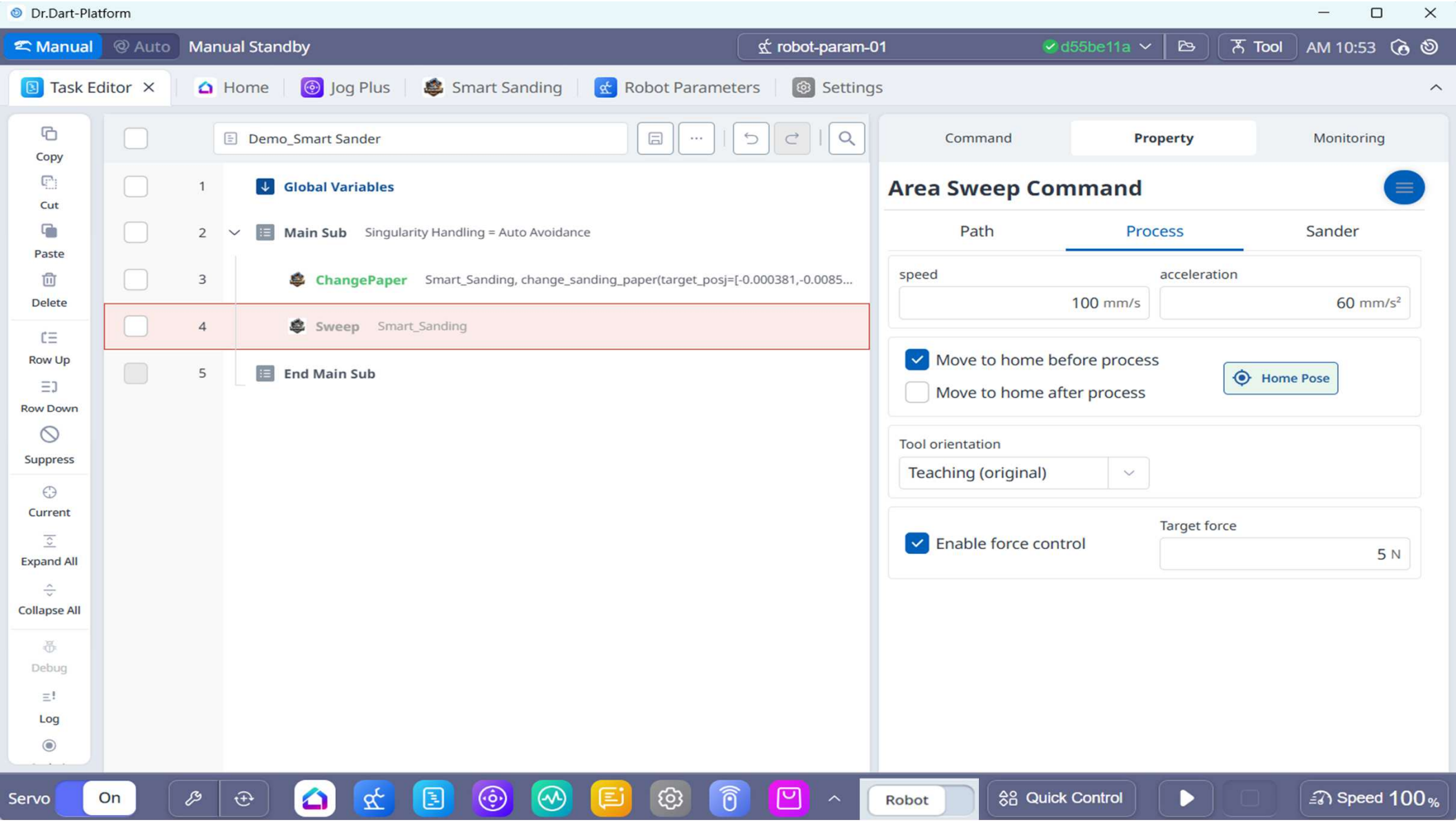

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:33
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
speed
100 mm/s
acceleration
60 mm/s²
Move to home before process
Move to home after process
Home Pose
Tool orientation
Teaching (original)
Plane
Axis
Custom plane
Target force
5 N
Servo
On
Robot
Quick Control
Speed 100%

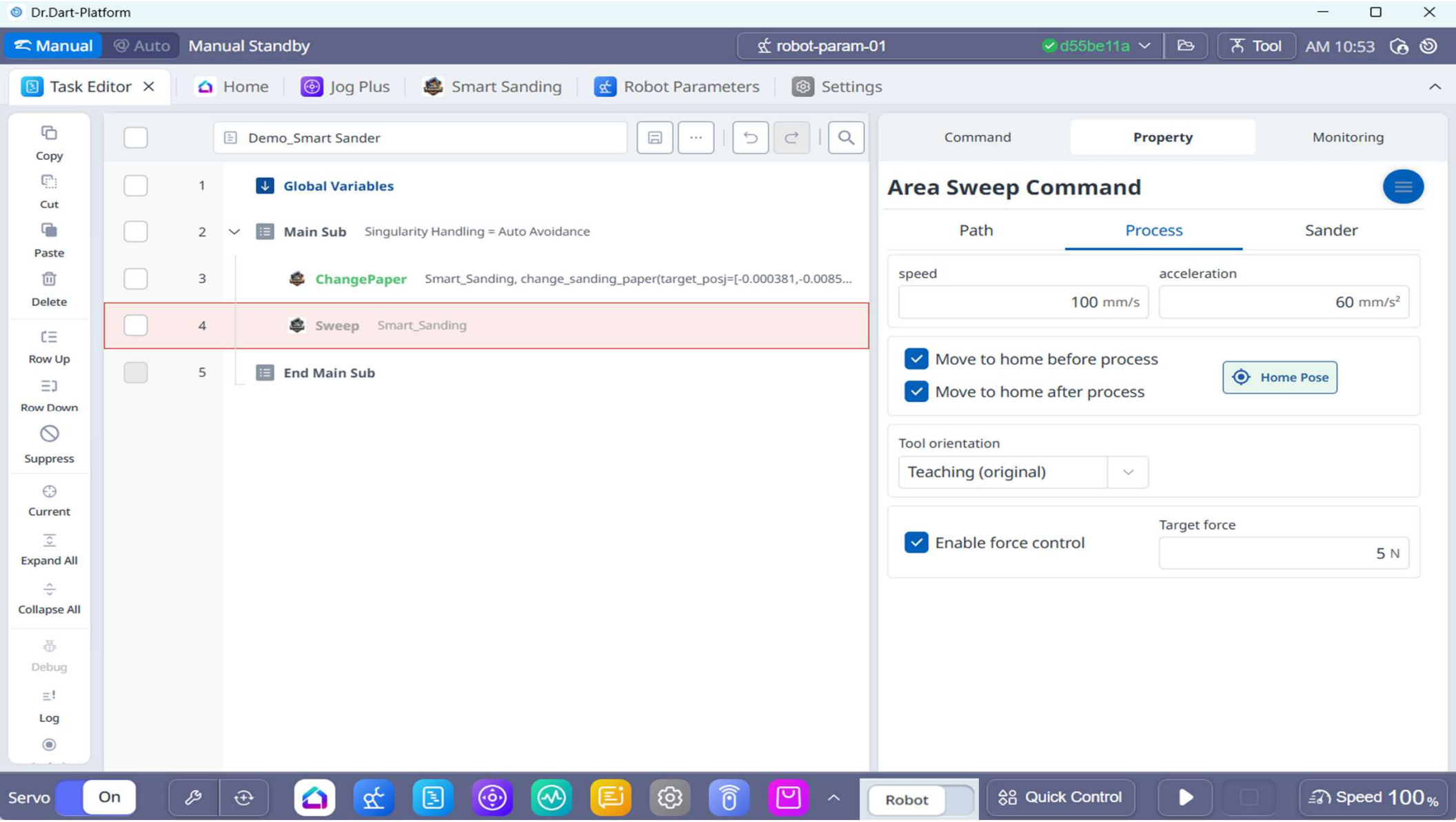

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:33
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
speed
100 mm/s
acceleration
60 mm/s²
Move to home before process
Move to home after process
Home Pose
Tool orientation
Plane
Enable force control
Target force
5 N
Servo
On
Robot
Quick Control
Speed 100%

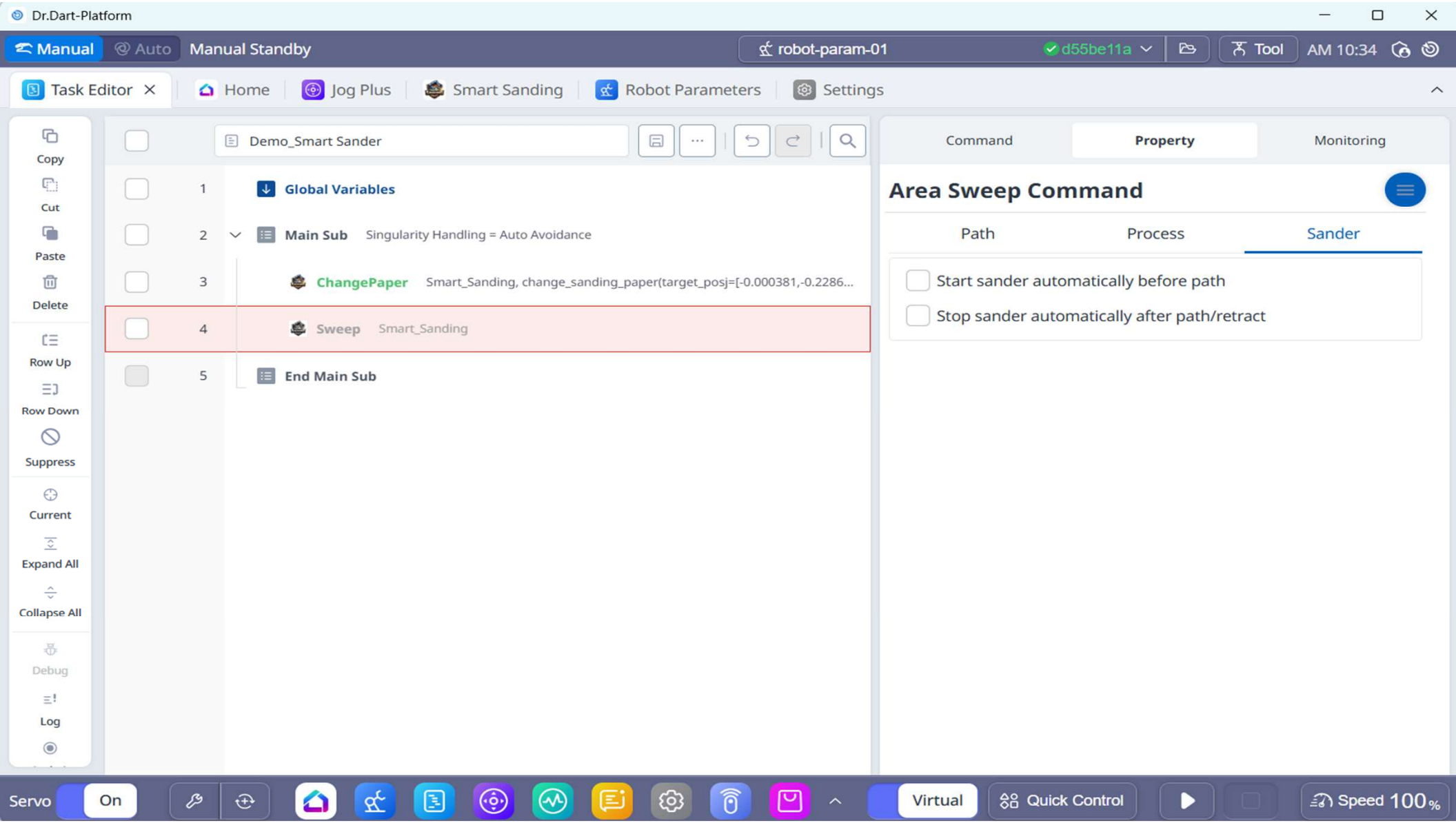

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:32
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
speed
100 mm/s
acceleration
60 mm/s²
Move to home before process
Move to home after process
Home Pose
Click
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Servo
On
Robot
Quick Control
Speed 100%

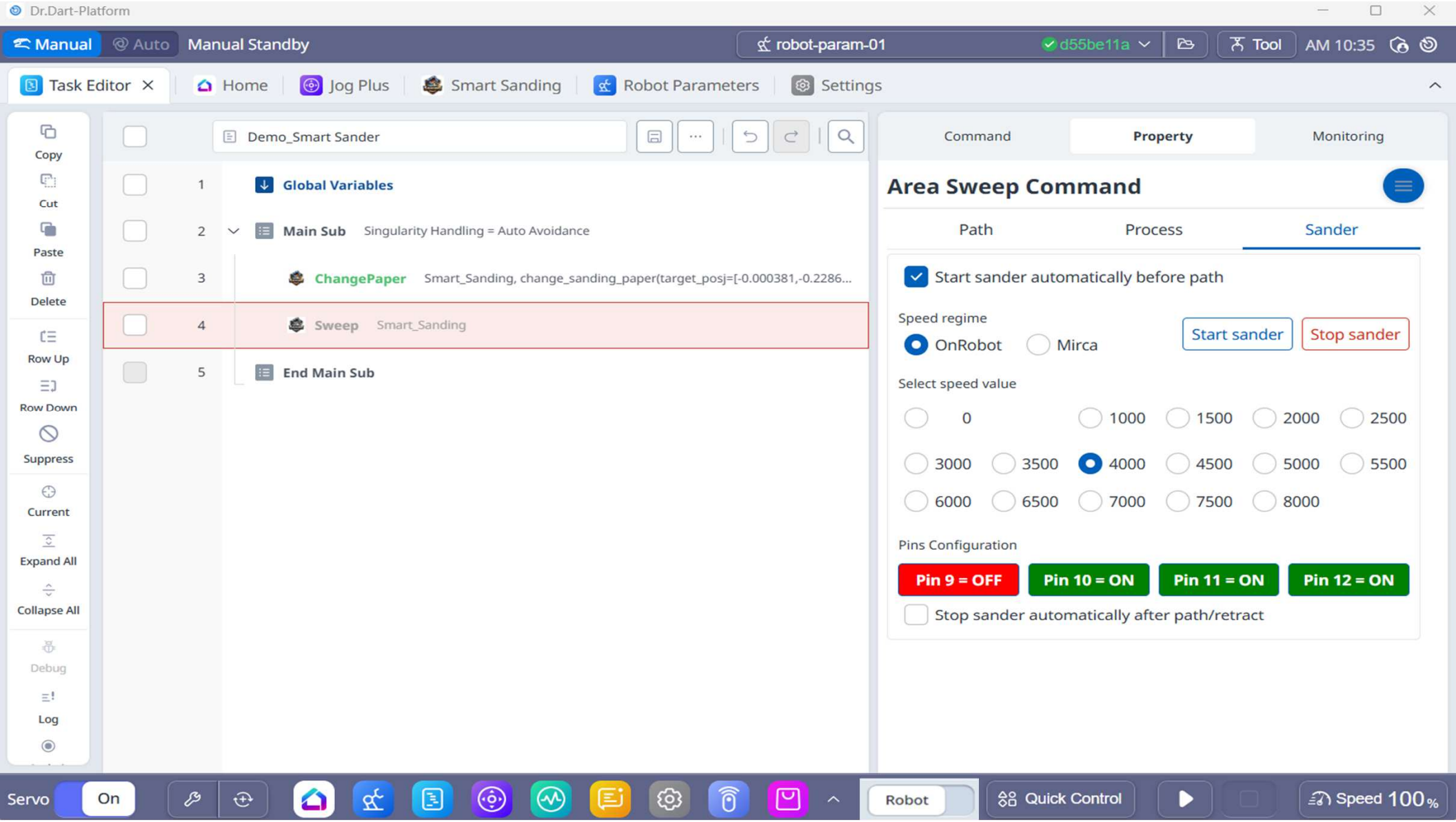

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:43
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangeP
4 Sweep
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
acceleration
00 mm/s
60 mm/s²
re process
process
Home Pose
Target force
5 N
Edit Joint Pose: Home Pose
X (mm)
Y (mm)
Z (mm)
RZ (deg)
RY (deg)
RX (deg)
563,038
34,218
229,938
180
-0,000007
-180
Solution Space (Shoulder/Elbow/Wrist)
2 - Lefty / Above / NoFlip
J1 (deg)
J2 (deg)
J3 (deg)
J4 (deg)
J5 (deg)
J6 (deg)
0
0
90
0
90
0
Get Current Pose
Move Linear
Move Joint
Apply Changes
Cancel
Servo
On
Robot
Quick Control
Speed 100 %

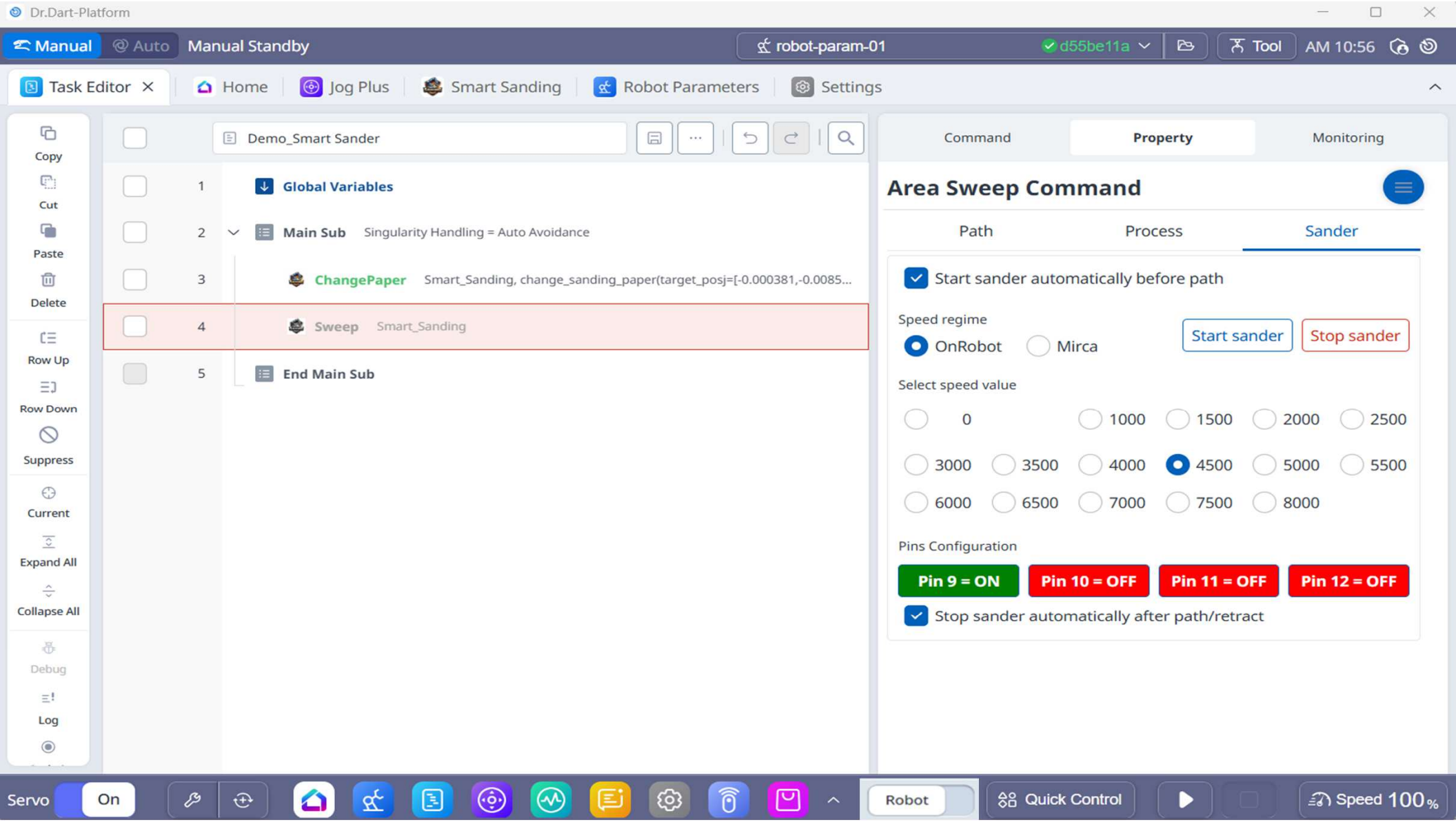

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:51
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
Monitoring
Sander
60 mm/s²
Home Pose
5 N
Edit Joint Pose: Home Pose
X (mm) Y (mm) Z (mm) RZ (deg) RY (deg) RX (deg)
563,801 34,379 231,43 0,016705 179,9915 -0,017084
Solution Space (Shoulder/Elbow/Wrist)
2 - Lefty / Above / NoFlip
J1 (deg) J2 (deg) J3 (deg) J4 (deg) J5 (deg) J6 (deg)
0 0,063 89,784 0,017 90,144 -0,017
Get Current Pose
Move Linear
Move Joint
Apply Changes
Cancel
TCP
BASE
Front
Right
Left
Rear
Top
Servo
On
Virtual
Quick Control
Speed 100%

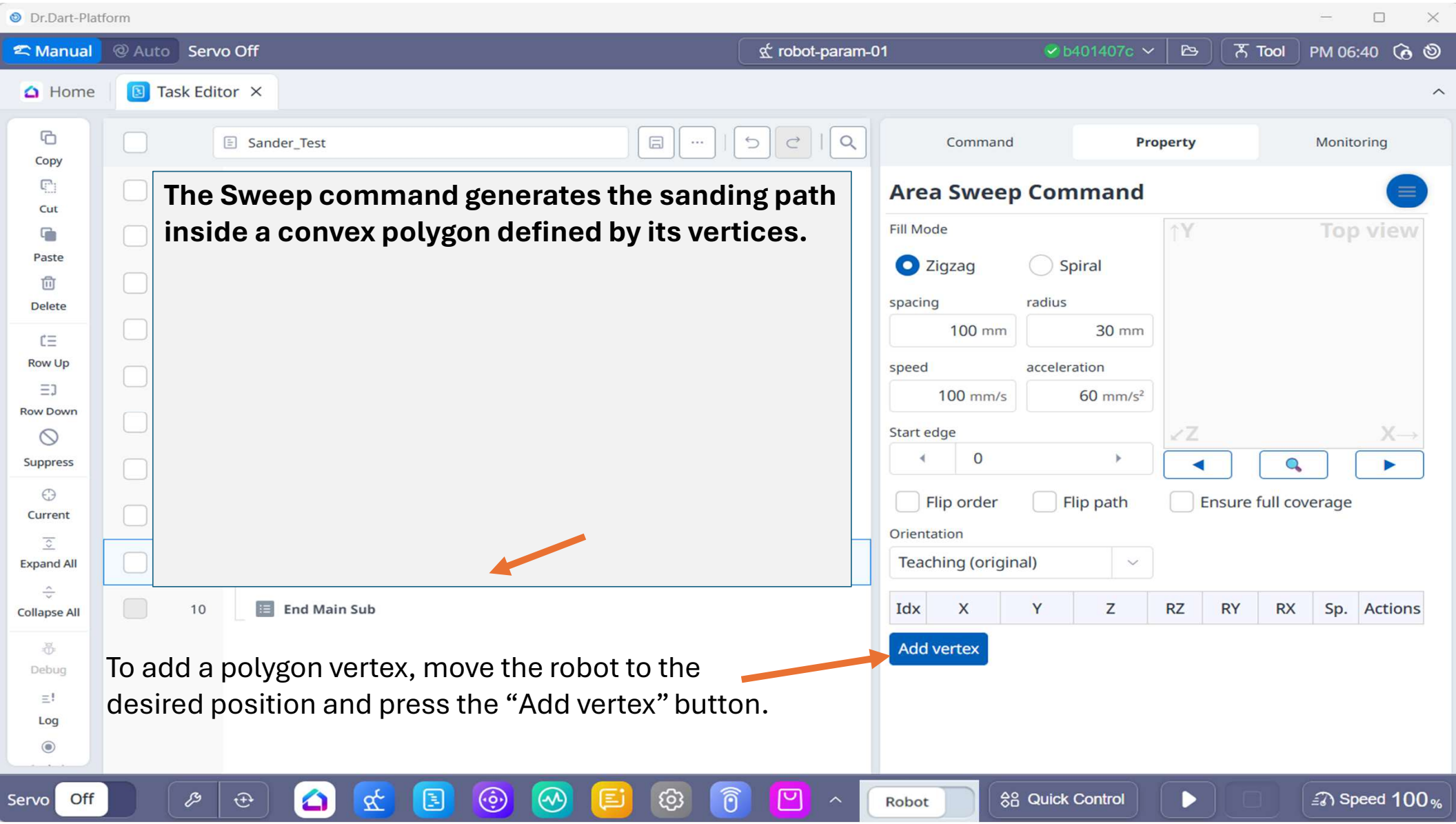

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:53
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
speed
100 mm/s
acceleration
60 mm/s²
Move to home before process
Move to home after process
Home Pose
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Servo
On
Robot
Quick Control
Speed 100 %

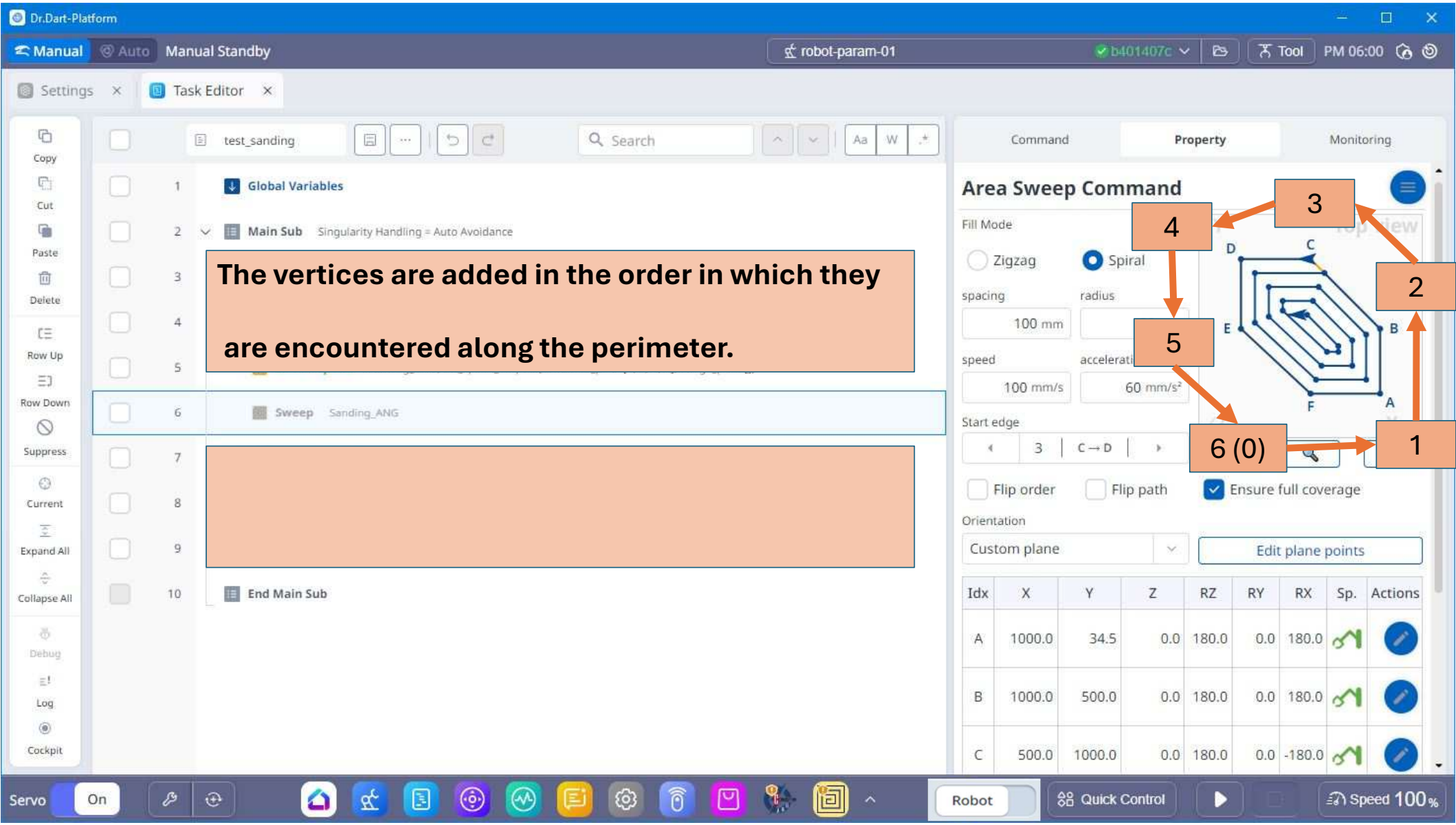

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:53
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
speed
100 mm/s
acceleration
60 mm/s²
Move to home before process
Move to home after process
Home Pose
Tool orientation
Teaching (original)
Enable force control
Target force
5 N
Servo
On
Robot
Quick Control
Speed 100 %

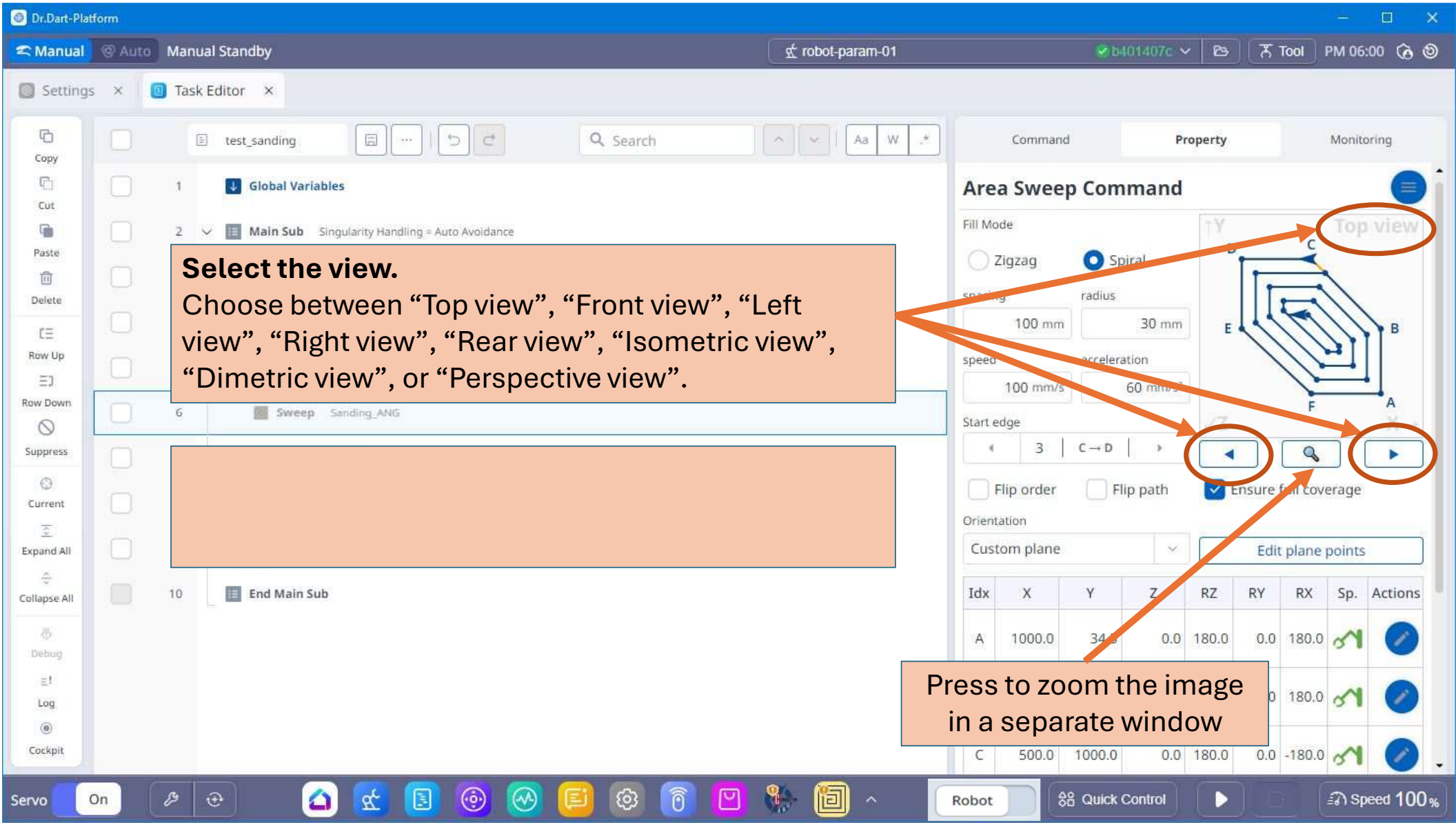

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:34
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
Start sander automatically before path
Stop sander automatically after path/retract
Servo
On
Virtual
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:35
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.2286...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
Start sander automatically before path
Speed regime
OnRobot
Mirca
Start sander
Stop sander
Select speed value
0
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
Pins Configuration
Pin 9 = OFF
Pin 10 = ON
Pin 11 = ON
Pin 12 = ON
Stop sander automatically after path/retract
Servo
On
Robot
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:56
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Path
Process
Sander
Start sander automatically before path
Speed regime
OnRobot
Mirca
Start sander
Stop sander
Select speed value
0
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
Pins Configuration
Pin 9 = ON
Pin 10 = OFF
Pin 11 = OFF
Pin 12 = OFF
Stop sander automatically after path/retract
Servo
On
Robot
Quick Control
Speed 100%

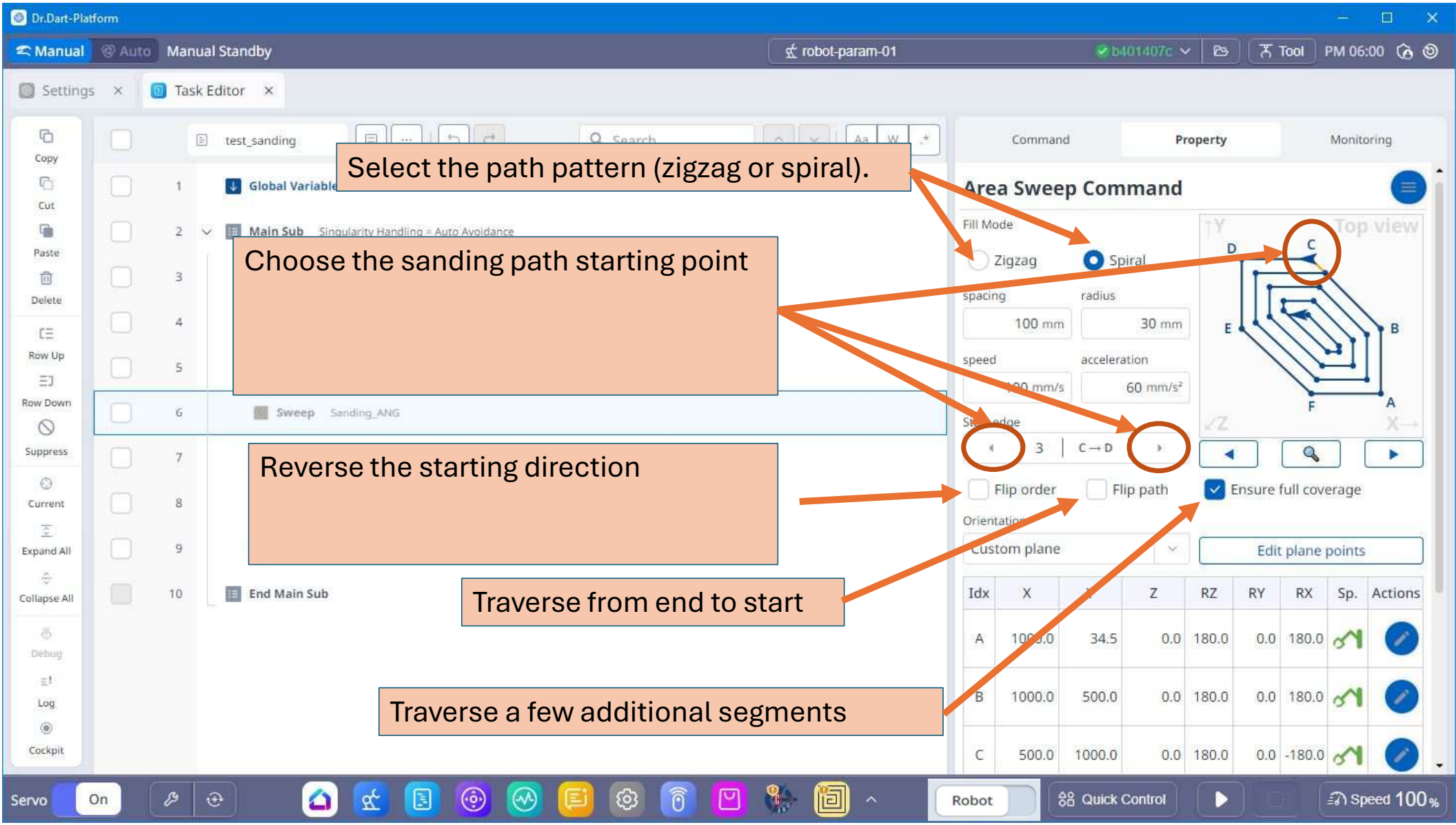

Dr.Dart-Platform
Manual
Auto
Servo Off
robot-param-01
b401407c
Tool
PM 06:40
Home
Task Editor
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Sander_Test
The Sweep command generates the sanding path inside a convex polygon defined by its vertices.
10
End Main Sub
Command
Property
Monitoring
Area Sweep Command
Fill Mode
Zigzag
Spiral
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s²
Start edge
0
Top view
Flip order
Flip path
Ensure full coverage
Orientation
Teaching (original)
Idx
X
Y
Z
RZ
RY
RX
Sp.
Actions
Add vertex
To add a polygon vertex, move the robot to the desired position and press the “Add vertex” button.
Servo
Off
Robot
Quick Control
Speed 100%

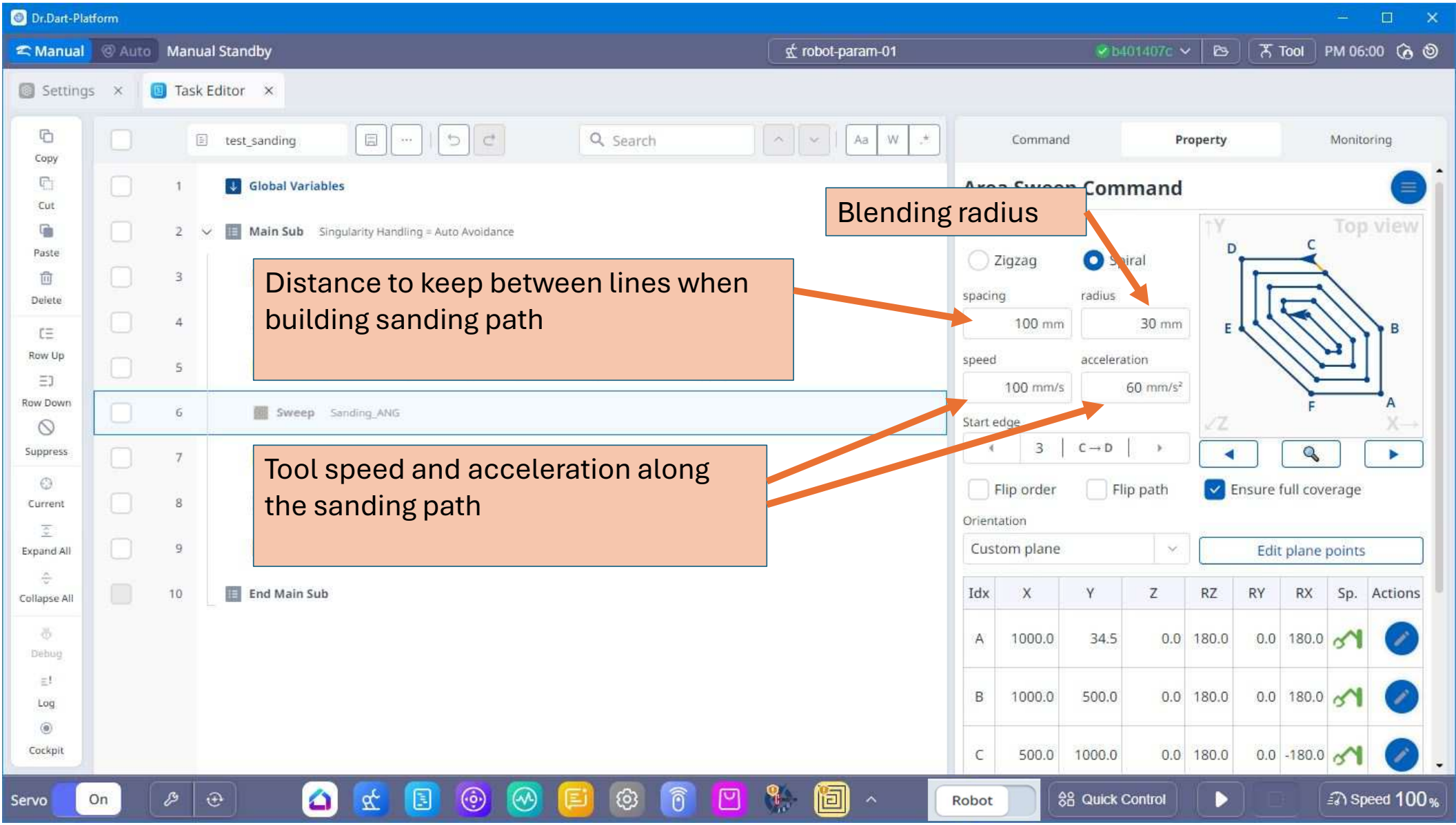

Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
Tool
PM 06:00
Settings
Task Editor
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
test_sanding
Search
Aa
W
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3
4
5
6 Sweep Sanding_ANG
7
8
9
10 End Main Sub
The vertices are added in the order in which they are encountered along the perimeter.
Command
Property
Monitoring
Area Sweep Command
Fill Mode
Zigzag
Spiral
spacing
100 mm
radius
speed
100 mm/s
60 mm/s²
Start edge
3
C → D
Flip order
Flip path
Ensure full coverage
Orientation
Custom plane
Edit plane points
Idx X Y Z RZ RY RX Sp. Actions
A 1000.0 34.5 0.0 180.0 0.0 180.0
B 1000.0 500.0 0.0 180.0 0.0 180.0
C 500.0 1000.0 0.0 180.0 0.0 -180.0
3
4
2
5
6 (0)
1
D
C
E
B
F
A
Servo
On
Robot
Quick Control
Speed 100%



Select the view.
Choose between “Top view”, “Front view”, “Left view”, “Right view”, “Rear view”, “Isometric view”, “Dimetric view”, or “Perspective view”.

Press to zoom the image in a separate window


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
Tool
PM 06:00
Settings
Task Editor
test_sanding
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
1 Global Variable
2 Main Sub Singularity Handling = Auto Avoidance
3
4
5
6 Sweep Sanding_ANG
7
8
9
10 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Fill Mode
Zigzag
Spiral
spacing
100 mm
radius
30 mm
speed
acceleration
60 mm/s²
3
C → D
Flip order
Flip path
Ensure full coverage
Orientation
Custom plane
Edit plane points
Top view
Idx X Y Z RZ RY RX Sp. Actions
A 1000.0 34.5 0.0 180.0 0.0 180.0
B 1000.0 500.0 0.0 180.0 0.0 180.0
C 500.0 1000.0 0.0 180.0 0.0 -180.0
Servo
On
Robot
Quick Control
Speed 100%
Select the path pattern (zigzag or spiral).
Choose the sanding path starting point
Reverse the starting direction
Traverse from end to start
Traverse a few additional segments


Dr.Dart-Platform
Manual
Auto
Manual Standby
robot-param-01
Tool
PM 06:00
Settings
Task Editor
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
test_sanding
Search
Aa
W
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3
4
5
6 Sweep Sanding_ANG
7
8
9
10 End Main Sub
Command
Property
Monitoring
Area Sweep Command
Blending radius
Distance to keep between lines when building sanding path
Tool speed and acceleration along the sanding path
Zigzag
Spiral
spacing
100 mm
radius
30 mm
speed
100 mm/s
acceleration
60 mm/s²
Start edge
3
C → D
Top view
Flip order
Flip path
Ensure full coverage
Orientation
Custom plane
Edit plane points
Idx X Y Z RZ RY RX Sp. Actions
A 1000.0 34.5 0.0 180.0 0.0 180.0
B 1000.0 500.0 0.0 180.0 0.0 180.0
C 500.0 1000.0 0.0 180.0 0.0 -180.0
Servo
On
Robot
Quick Control
Speed 100%

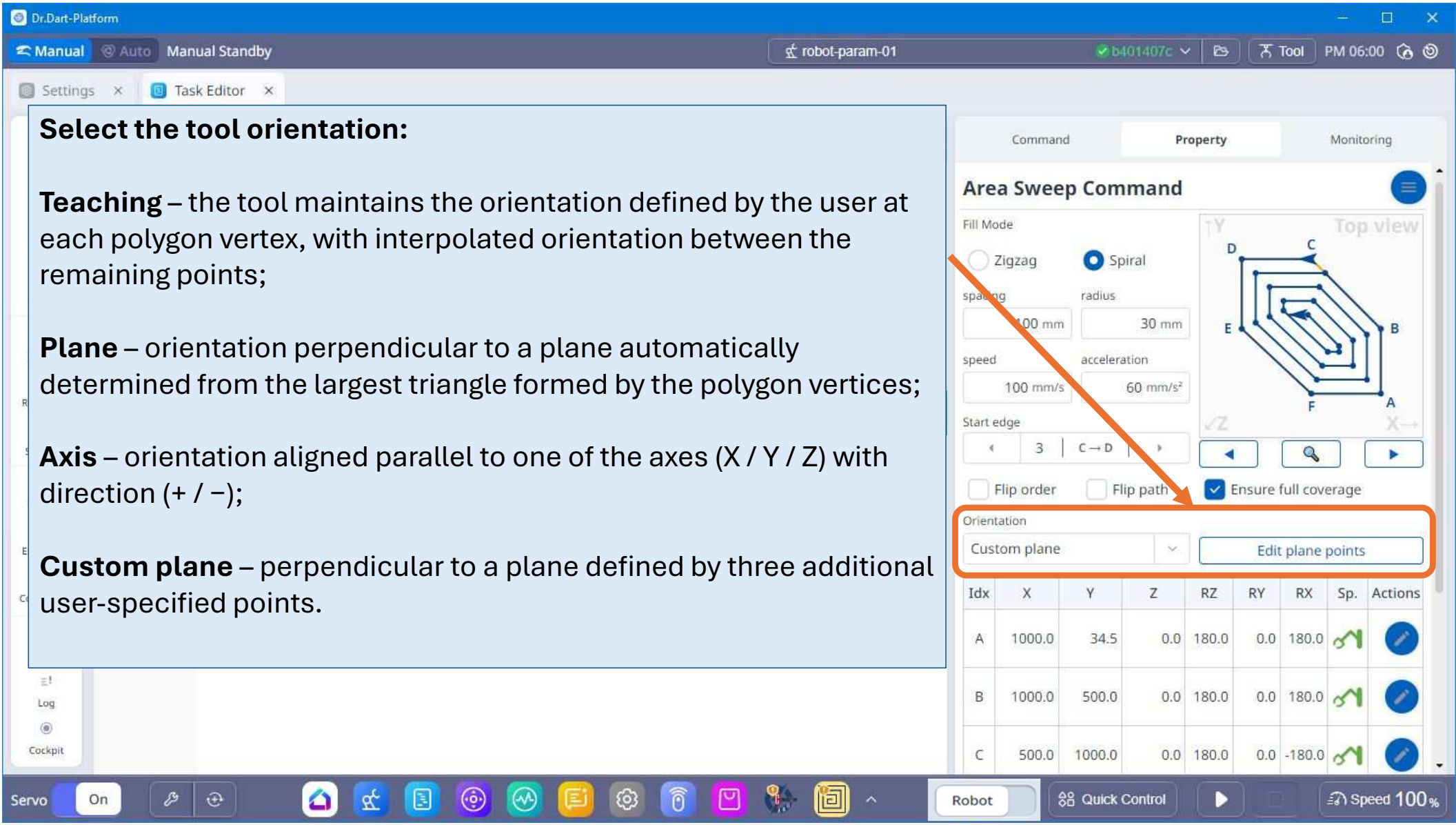
Select the tool orientation:

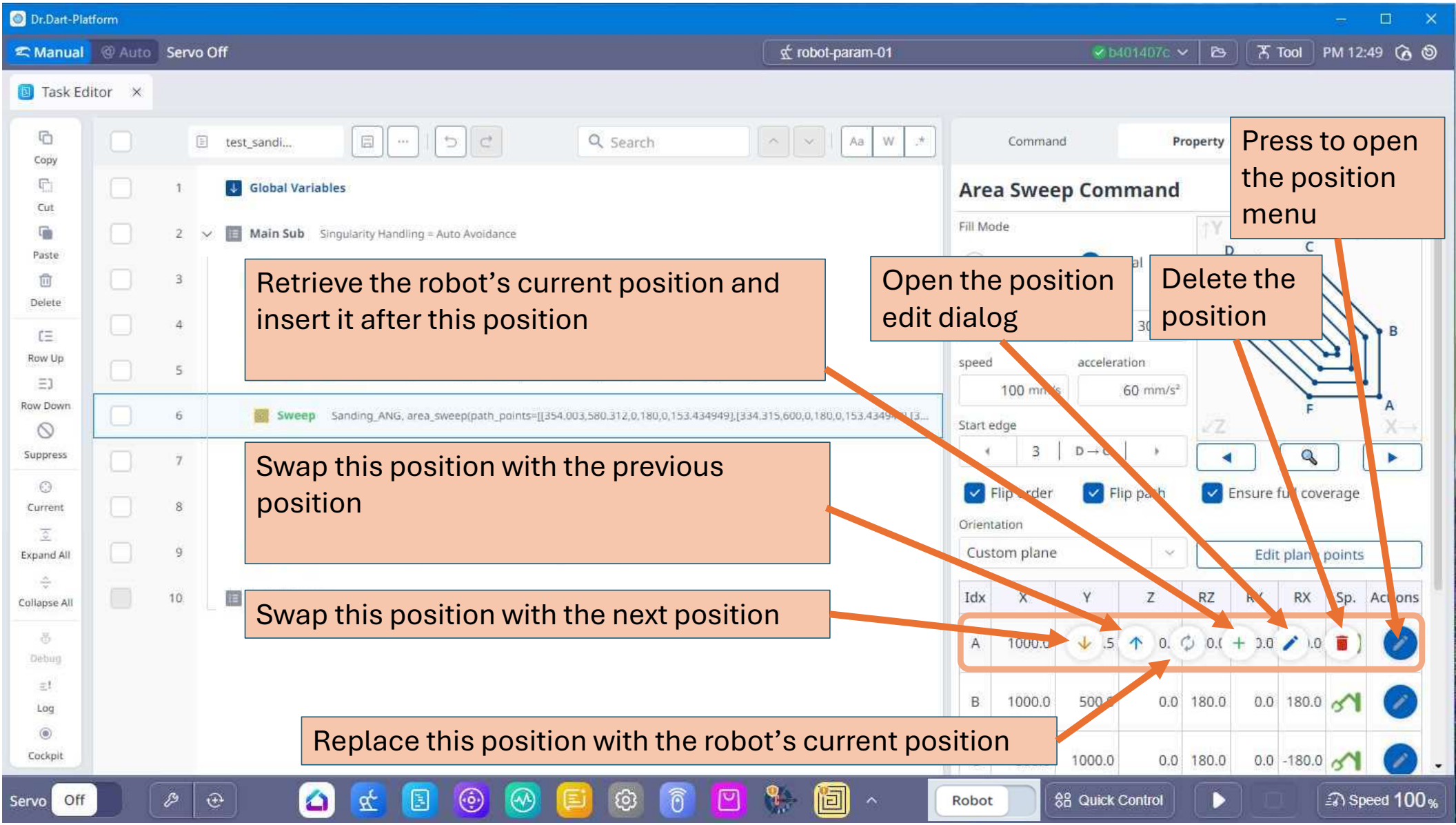
Teaching – the tool maintains the orientation defined by the user at each polygon vertex, with interpolated orientation between the remaining points;

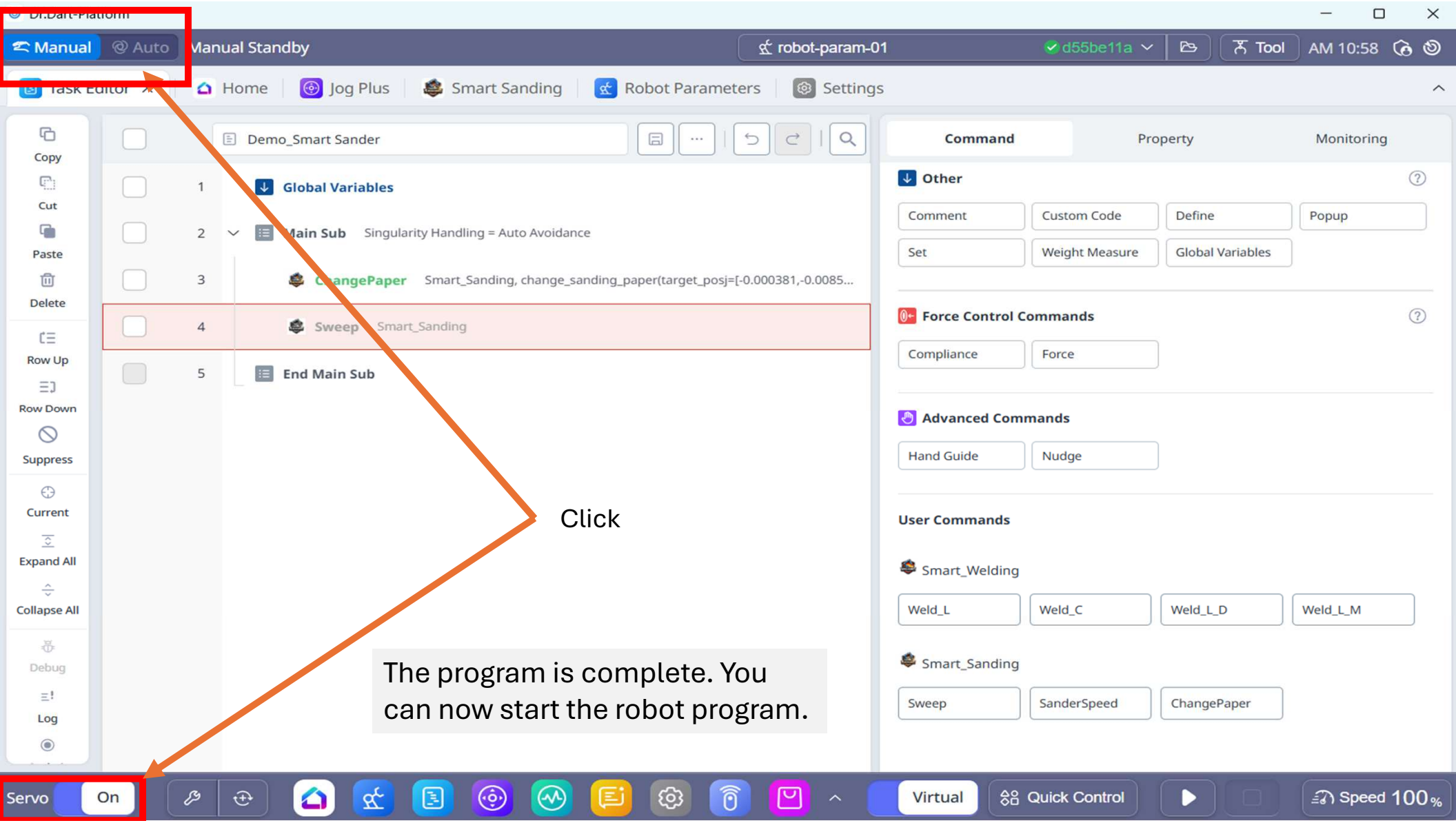
Plane – orientation perpendicular to a plane automatically determined from the largest triangle formed by the polygon vertices;

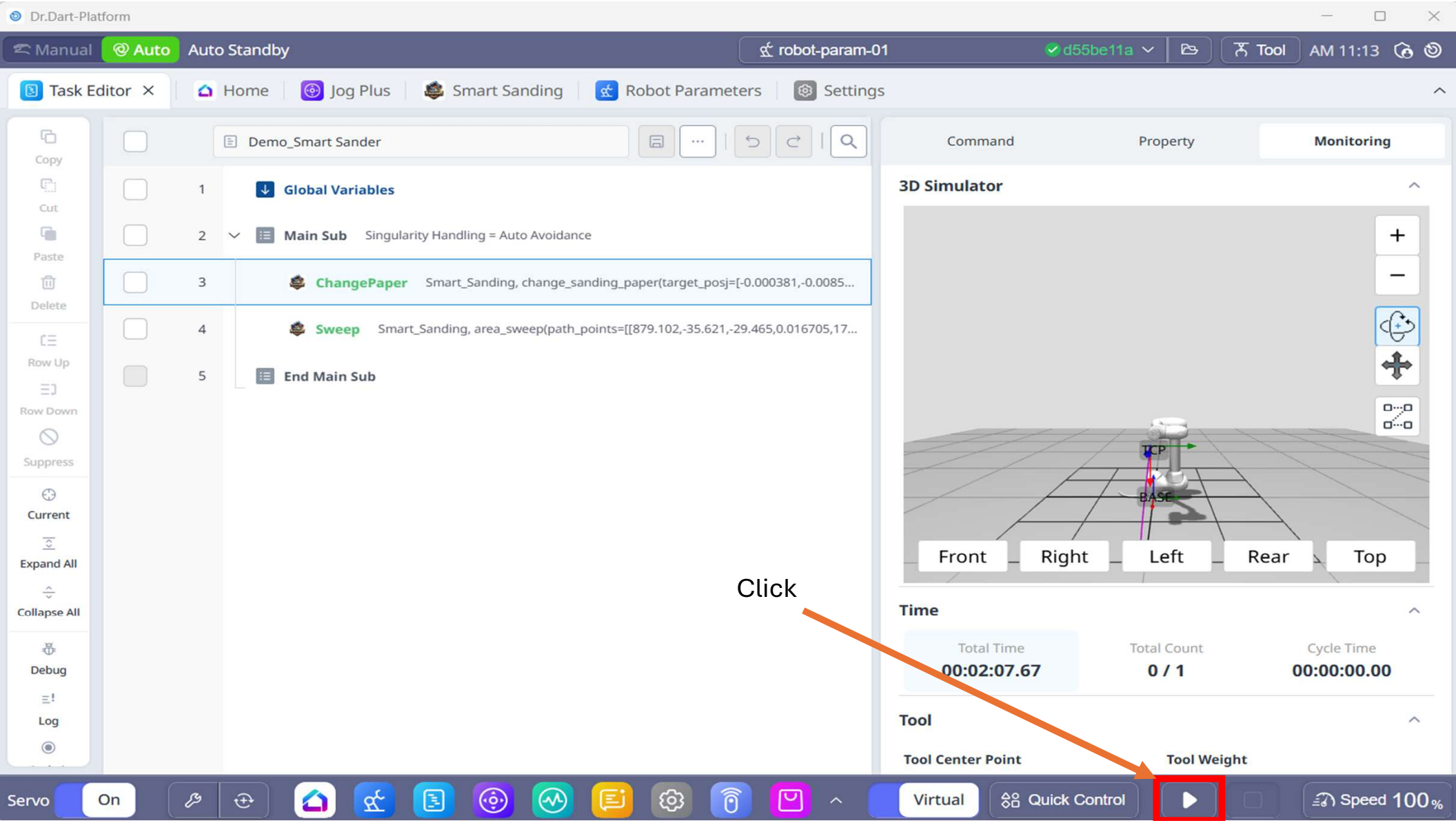
Axis – orientation aligned parallel to one of the axes (X / Y / Z) with direction (+ / −);

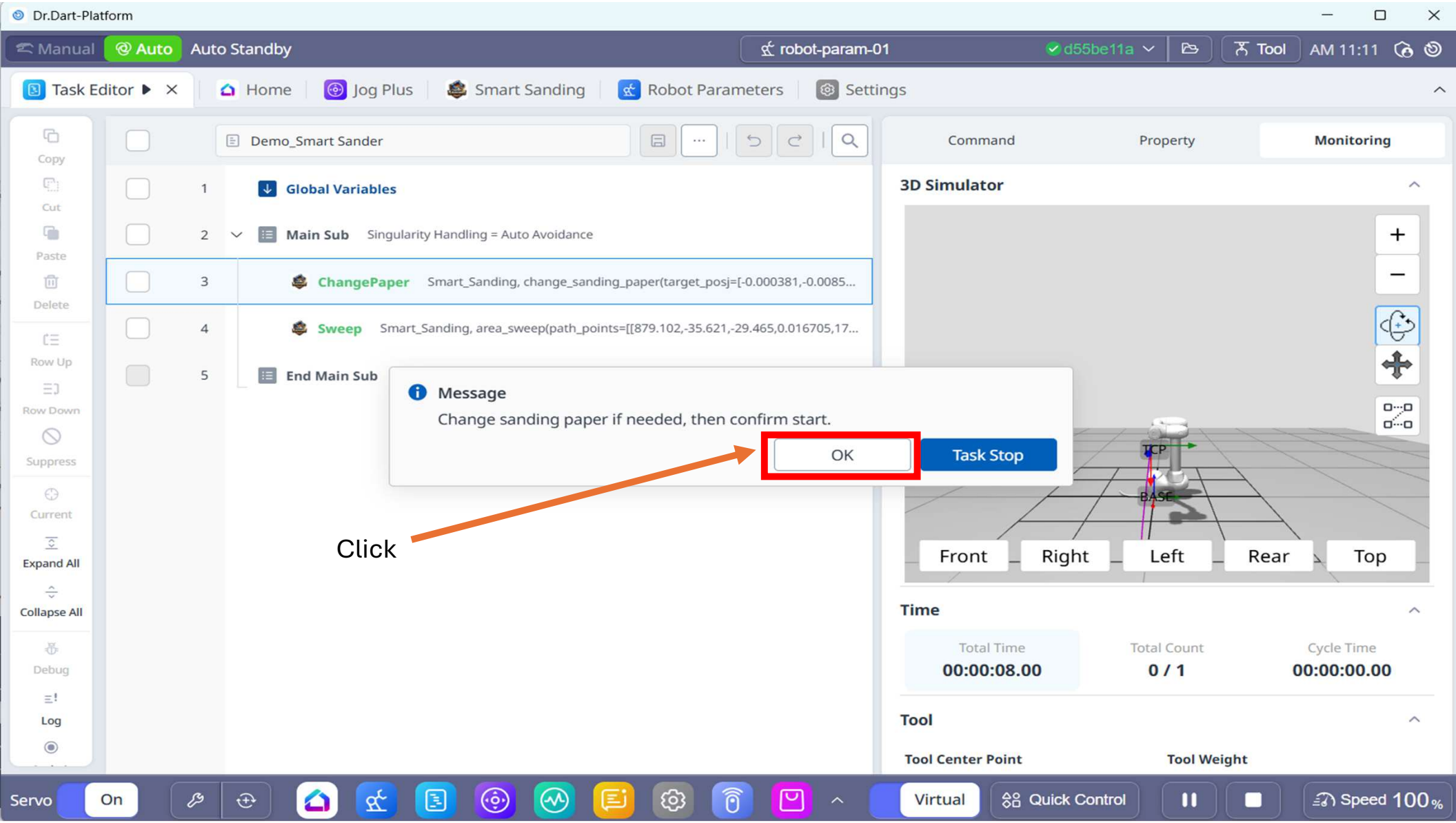
Custom plane – perpendicular to a plane defined by three additional user-specified points.

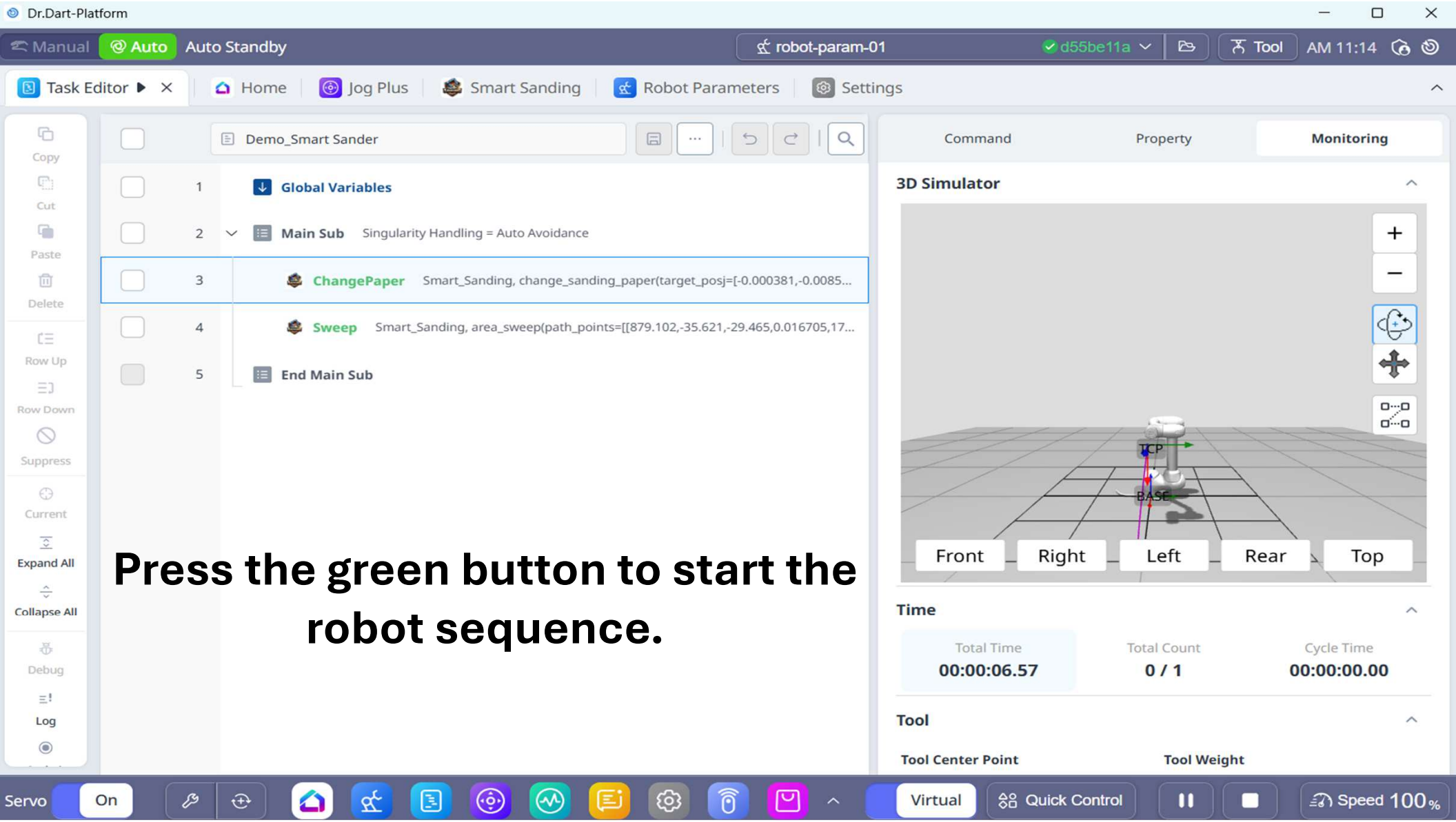



Dr.Dart-Platform
Manual
Auto
Servo Off
robot-param-01
Tool
PM 12:49
Task Editor
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Cockpit
test_sandi...
Search
Global Variables
Main Sub
Singularity Handling = Auto Avoidance
Sweep
Command
Property
Area Sweep Command
Fill Mode
speed
acceleration
100 mm/s
60 mm/s²
Start edge
Orientation
Custom plane
Edit plane points
Idx
X
Y
Z
RZ
RY
RX
Sp.
Actions
A
B
1000.0
0.0
180.0
-180.0
Press to open the position menu
Retrieve the robot's current position and insert it after this position
Open the position edit dialog
Delete the position
Swap this position with the previous position
Swap this position with the next position
Replace this position with the robot's current position
Servo
Off
Robot
Quick Control
Speed 100%


Manual
Auto
Manual Standby
robot-param-01
d55be11a
Tool
AM 10:58
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding
5 End Main Sub
Command
Property
Monitoring
Other
Comment
Custom Code
Define
Popup
Set
Weight Measure
Global Variables
Force Control Commands
Compliance
Force
Advanced Commands
Hand Guide
Nudge
User Commands
Smart_Welding
Weld_L
Weld_C
Weld_L_D
Weld_L_M
Smart_Sanding
Sweep
SanderSpeed
ChangePaper
Click
The program is complete. You can now start the robot program.
Servo
On
Virtual
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Auto Standby
robot-param-01
d55be11a
Tool
AM 11:13
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding, area_sweep(path_points=[[879.102,-35.621,-29.465,0.016705,17...
5 End Main Sub
Command
Property
Monitoring
3D Simulator
TCP
BASE
Front
Right
Left
Rear
Top
Time
Total Time
00:02:07.67
Total Count
0 / 1
Cycle Time
00:00:00.00
Tool
Tool Center Point
Tool Weight
Click
Servo
On
Virtual
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Auto Standby
robot-param-01
d55be11a
Tool
AM 11:11
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding, area_sweep(path_points=[[879.102,-35.621,-29.465,0.016705,17...
5 End Main Sub
Message
Change sanding paper if needed, then confirm start.
OK
Task Stop
Click
Command
Property
Monitoring
3D Simulator
TCP
BASE
Front
Right
Left
Rear
Top
Time
Total Time
00:00:08.00
Total Count
0 / 1
Cycle Time
00:00:00.00
Tool
Tool Center Point
Tool Weight
Servo
On
Virtual
Quick Control
Speed 100%


Dr.Dart-Platform
Manual
Auto
Auto Standby
robot-param-01
d55be11a
Tool
AM 11:14
Task Editor
Home
Jog Plus
Smart Sanding
Robot Parameters
Settings
Copy
Cut
Paste
Delete
Row Up
Row Down
Suppress
Current
Expand All
Collapse All
Debug
Log
Demo_Smart Sander
1 Global Variables
2 Main Sub Singularity Handling = Auto Avoidance
3 ChangePaper Smart_Sanding, change_sanding_paper(target_posj=[-0.000381,-0.0085...
4 Sweep Smart_Sanding, area_sweep(path_points=[[879.102,-35.621,-29.465,0.016705,17...
5 End Main Sub
Command
Property
Monitoring
3D Simulator
TCP
BASE
Front
Right
Left
Rear
Top
Time
Total Time
00:00:06.57
Total Count
0 / 1
Cycle Time
00:00:00.00
Tool
Tool Center Point
Tool Weight
Press the green button to start the robot sequence.
Servo
On
Virtual
Quick Control
Speed 100%

The table is active with the part. The green light confirms its presence. You can now press the green button to start the robot sequence.

Press the green button to start the robot sequence.

⚠️ The green button can only be activated if the robot program in the *Task Editor* is completed and the robot is in automatic mode.