

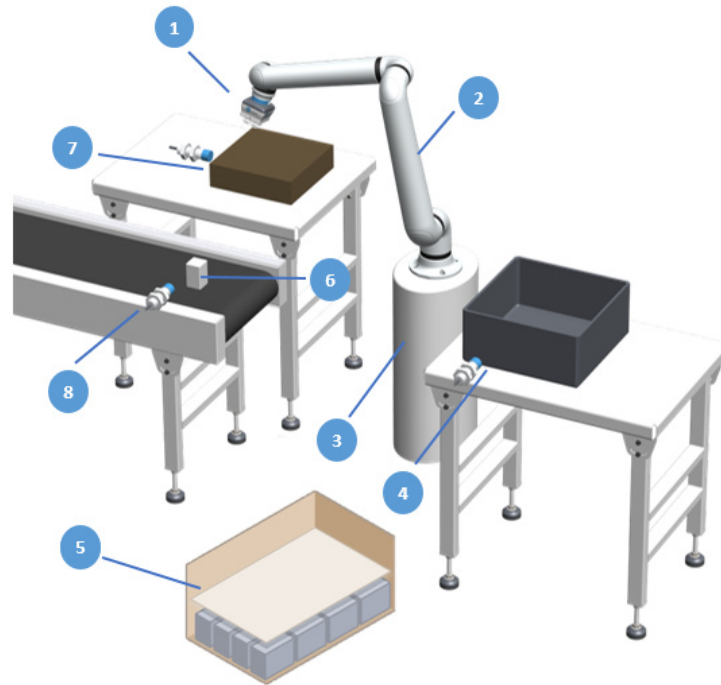


DATASHEET

D:PLOY - PACKAGING APPLICATION

v1.1.200

Packaging Application



1/ a.	Grippers	2FG7	2FG14	2FGP20		3FG15	3FG25	MG10		RG2	RG6
		SG-a-H/SG-b-H	VG10	VGC10	VGP20	VGP30	Gecko Gripper		G2FG	G3FG	GVG
1/ b.	Tool mounting	Quick Changer				Angle Bracket 45°			Angle Bracket 90°		
2.	Robot brands	ABB	Denso	Doosan		Elite		FANUC	FANUC CRX		Jaka
		Kawasaki		Omron TM		Schneider		Techman		UR	Yaskawa
3.	Robot mounting	Can be mounted at any height					Can be tilted 0°, 30°, 45° or 90°				
4.	Outfeed container (parts to pack into)	Any size (that the gripper and the robot can handle)				Can be mounted at any height, and tilted at any angle (container needs to be tough - 1/2/3 points)			Outfeed container device required. It keeps track of how full, and stop until it is emptied		
5.	Pattern options	Automatic (optionally having the labels facing outward, can calculate pattern to fill)					Manual (easy to use pattern editor, optionally have labels rotated outward, spacing within parts or from edges for snapping)				

6.	Product size/ weight/ type	Any size that the gripper can handle	Any weight that the gripper and robot can handle	Cuboid or Cylindrical (both may not be available on a given gripper)
7.	Interlayer sheet	Cardboard or Paper (full or half size)	Sheets can be picked from a fixed position (spring loaded tray) or based on thickness D:PLOY can “search” for the next one (normal tray)	Horizontal or tilted trays supported (can be placed anywhere within robot reach)
8.	Infeed type / multiple parts	Conveyor belt or Turn table	Single part or grouped parts (multiple parts at once for faster cycle time - recommended to use two sensors in a twin signal configuration)	Can be at any height, and tilted at any angle

Additional information

1a. Grippers

Grippers can be customized with any OnRobot accessory or custom fingertip/vacuum accessory.

		Finger grippers								
		2FGP20	2FG7	2FG14	3FG15	3FG25	RG2	RG6	G2FG	G3FG
Can grip - single part	Cuboid	✓	✓	✓	✗	✗	✓	✓	✓	✗
	Cylindrical	✓	✓ *	✓	✓	✓	✓ *	✓ *	✓	✓
Can grip - multiple parts	Cuboid	✗	✗	✗	✗	✗	✗	✗	✗	✗
Can pick interlayer sheets		✗	✗	✗	✗	✗	✗	✗	✗	✗
Can drop part		✓	✓	✓	✓	✓	✓	✓	✓	✓

		Vacuum grippers					Special grippers		
		VG10	VGC10	VGP20	VGP30	GVG	Gecko Gripper	MG10	SG
Can grip - single part	Cuboid	✓	✓	✓	✓	✓	✓	✓	✓
	Cylindrical	✓	✓	✓	✓	✓	✓	✓	✓
Can grip - multiple parts	Cuboid	✓ **	✓ **	✓ ***	✓ **	✓	✗	✗	✗

Can pick interlayer sheets	✓	✓	✓	✓	✓	✗	✗	✗
Can drop part	✓	✓	✓	✓	✓	✗	✓	✓

* With special fingertips.

** Up to two parts.

*** Up to four parts.

1b. Tool mounting

Dual QC and HEX-E/H QC are not supported.

2. Robot brands

Supported robot models and controllers

Robot Type	ABB	Denso	Doosan	Elite	FANUC	FANUC CRX	Jaka
Robot Model	CRB 1100 -4/0.58 CRB 15000 -5/0.95 CRB 15000 -10/1.52 CRB 15000 -12/1.27 IRB 1100 -4/0.58 IRB 1100 -4/0.47 IRB 120 IRB 1200 -5/0.9 IRB 1200 -7/0.7 IRB 1300 -7/1.4 IRB 1300 -10/1.15 IRB 1300 -11/0.9 IRB 1300 -12/1.4 IRB 1600 -6/1.2 IRB 1600 -6/1.45 IRB 1600 -10/1.2 IRB 1600- 10/1.45	VM-6083 VM-60B1 VP-6242 VS050A3 VS087A4 VP-5243 VS-050-S2 VS-087A4 VS-6577 VS-6556 VS-087	A0509 A0509s A0912 A0912s H2017 H2515 M0609 M0617 M1013 M1509 E0509 P3020	CS63 CS66 CS612 CS620 CS625	CR-7iA CR-7iA/L CR-14iA/L CR-15iA CR-35iB LR Mate 200iD LR Mate 200iD/4S LR Mate 200iD/7L LR Mate 200iD/14L	CRX-5iA CRX-10iA CRX-10iA/L CRX-20iA/ L CRX-25iA CRX-30iA	Zu3 Zu3S Zu5 Zu5S Zu7 Zu7S Zu12 Zu12S Zu18 Zu18S Zu20 Pro5 Pro12 Pro16
Robot Controller	IRC5 OmniCore	RC8	CS-01P CS-02 CS-03 CS-04 CS-05 CS-06 CS-11/12P	EliRobot + EliServer	R-30iB R-30iB Plus R-30iB Mini Plus	R-30iB Mini Plus	Electrical cabinet

Robot Type	Kawasaki	Omron TM	Schneider	Techman	UR	Yaskawa
Robot Model	RS003N RS005L RS005N RS006L RS007N RS007L RS010L RS010N RS013N RS015X RS020N RS025N RS030N RS050N RS080N CL103N CL105N CL108N CL110N	TM5-700 TM5X-700 TM5-900 TM5X-900 TM5S TM5S-X TM7S TM7S-X TM12 TM12X TM12S TM12S-X TM14 TMX14 TM14S TM14S-X TM16 TM16X TM20 TM20X TM25S TM25S-X TM30S TM30S-X	RL03 RL05 RL07 RL12 RL18	TM5-700 TM5X-700 TM5-900 TM5X-900 TM5S TM5S-X TM7S TM7S-X TM12 TM12X TM12S TM12S-X TM14 TMX14 TM14S TM14S-X TM16 TM16X TM20 TM20X TM25S TM25S-X TM30S TM30S-X	UR3 UR3e UR5 UR5e UR7e UR10 UR10e UR12e UR15 UR16e UR20 UR30	GP4, GP4FGG GP7, GP7FGG GP8, GP8FGG, GP8FGG HS GP8L GP12, GP12FGG GP20 GP20HL GP25, GP25FGG GP25-12 GP35L HC10 HC10DT HC10DTP, HC10DTPF, HC10DTP Classic HC20 HC20DT HC20DTP HC30PL
Robot Controller	E01 E02 F01 F02 F60	TM	LXMRL03S000 LXMRL05S000 LXMRL05S000 LXMRL12S000 LXMRL12S000	TM	CB3 e-Series CB5.3+	YRC1000 YRC1000 Micro

3. Robot mounting

The robot cannot be facing downward (ceiling mounted).

4. Outfeed container (parts to pack into)

Only one outfeed container is supported. The **Outfeed container** sensor can be any ultrasonic, laser/infra or any other type 24V digital sensor.

5. Pattern options

All calculations are done in the cloud using fast servers to save time.

6. Product size/weight/type

For parts smaller than the gripper, **drop part** function can be used if bottom cannot be reached.

7. Interlayer sheet

This is optional, and only shown if **Interlayer sheet sensor** device is configured in the cell setup. The sensor can be any ultrasonic, laser/infra or any other type 24V digital sensor.

8. Infeed type / multiple parts

Integrator must take care of the conveyor belt driving and timing (based on the infeed sensor). The infeed sensor can be any ultrasonic, laser/infra or any other type 24V digital sensor.

Estimated cycle time

The displayed cycle time in D:PLOY is an estimate. The actual cycle time might vary, depending on the parameters of your application and your robot:

- For ABB, the error on the estimation is expected to be less than 5%.
- For Denso, the error on the estimation is expected to be less than 5%.
- For Doosan, the error on the estimation is expected to be less than 15%.
- For FANUC, the error on the estimation is expected to be less than 10%.
- For Techman, the error on the estimation is expected to be less than 10%.
- For UR, the error on the estimation is expected to be less than 5%.
- For Omron TM, the error on the estimation is expected to be less than 10%.

Layout configuration

- With or without interlayer sheet
- Single or grouped parts being picked
- Infeed/interlayer at any angle

Examples

