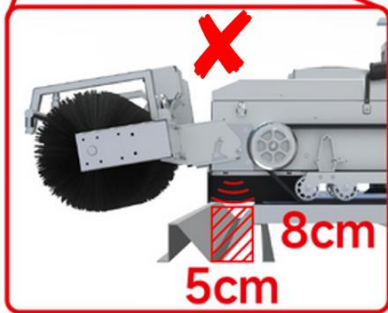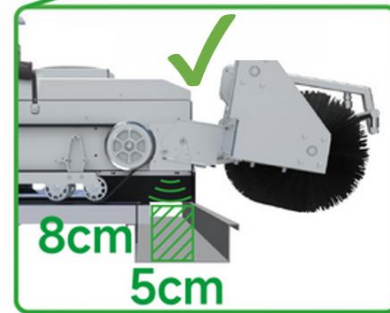# Kwun's Instructions before Use

1. Requirements for the Scenario

1) Kwun-E33H:

   The tilt angle of PV array is less than 20° (dry brushing) or 15° (water washing);

   Kwun- E32H/E32L/E22H/E22L:

   The tilt angle of PV array is less than 15° (dry brushing) or 10° (water washing);

   Note: The actual data depends on the pollution characterisitcs.

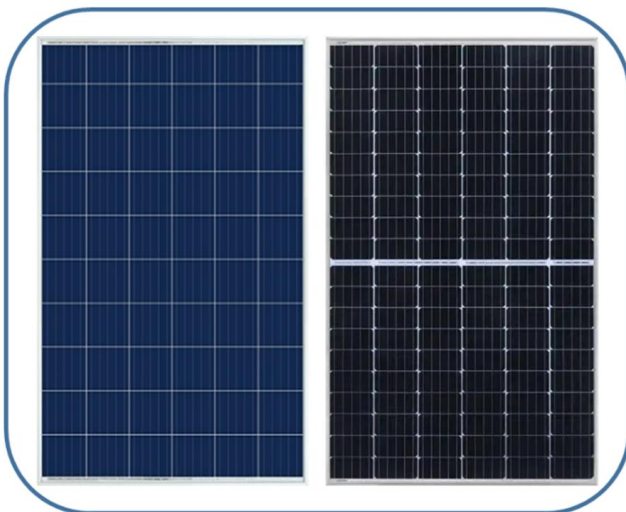2) No obstacle in the arrays or 5 cm width * 8 cm deep around the edge.

8cm
5cm

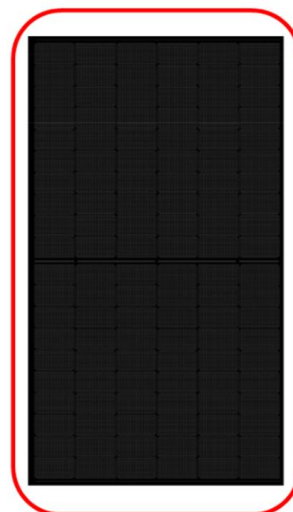Flume blocks the identification area, so Kwun cannot identify the edge accurately.

8cm
5cm

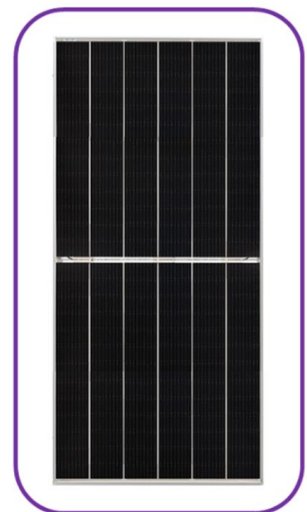Flume is out of the range of identification, Kwun can identify the edge correctly.

3) The PV panels in the arrays are same, and there are white intervals between the cells.
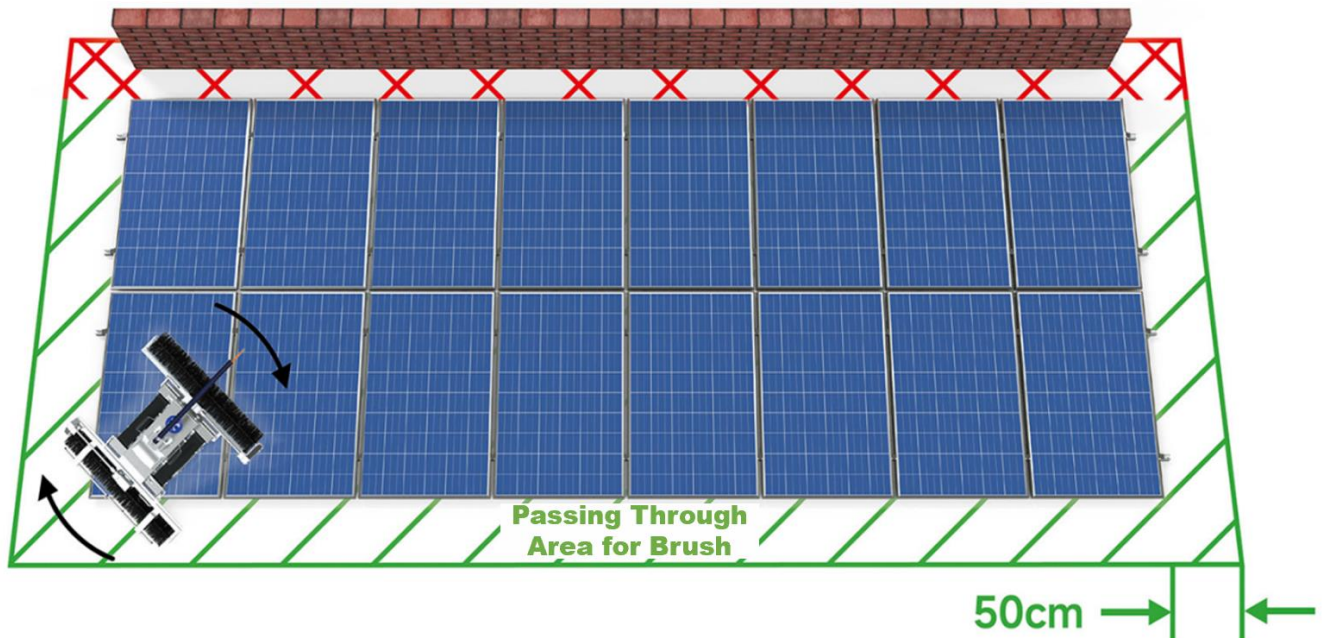

-White Intervals ✓
-Autonomous Operation Available ✓

-No Intervals ✗
-Autonomous Operation Unavailable ✗

-Partial Intervals
-Single Bottom Mode Only

4) The PV arrays are spaced less than 4cm apart.

5) The height difference of PV modules:

Kwun-E22L/E22H less than 4cm.

Kwun-E33H/E32H/E32L less than 3cm.

6) In the 50cm range of the edge of the PV array is free of obstacles

（If only one side of the first row is obstructed, use the "custom limit on the number of rows" feature in APP to avoid cleaning the first row.）

7) The supported types of PV panel are as follows (For specific pictures of each types, please refer to the official website - Products – Supported Types)：

Busbar	Type	Size(mm)	Pieces(PCS)
0BB	Full Size	125	96
2BB	Full Size	156	60
3BB	Full/Half-cut Size	156/158	60/72
4BB	Full/Half-cut Size	156/158	60/72
5BB	Full/Half-cut Size	156/158	60/72
6BB	Full/Half-cut Size	156/158	60/72
MBB	Half-cut Size	162/166	60/72
		182	60/72/54/66/78
		210	60/72/45/54/66/55
	One-Third	210	50

2. Default Scenario

Content	Option	Timing	Default
Type of PV module	Full size/Half size/One third	Standby	Full size
Grid line, size, number of pieces	Automatic recognition or custom patterns	standby	Automatic recognition
Anchor pattern	Berthing at start point/Adjacent angle	Standby	Berthing at start point
Cleaning tasks	1 ~ 10/999 times	Online	1 time
Array row limit	No limit/1 ~ 100 rows	Standby	No limit
Cleaning mode	Array/Single bottom Quick/Normal/Deep/Severe	Standby	Array　Normal

1) The robot left the factory with default full size in the scenario type, starting point parking mode, and one cleaning task.

2) If the scenario needs are different, it can be adjusted through the APP. For details about how to download the APP and how to use it, see "APP User Guide" in the Product User Guide.

3. Preparation

1) User need to purchase and install a Nano SIM card. Mobile data usage: device interface interaction is about 3.2KB/s, OTA for once is about 1-50MB, regular monthly data usage is 200-500MB. For details about how to install the SIM card, see the User Guide - *How to Use the 4G Network Module*.

2) When used outside of China, user needs to configure the 4G network module VPN. For details, see the *4G Network Module APN Configuration Instructions*.

4. Roller Brush Types

Types of Roller Brush V2.4

Type	Effective Cleaning Width	Kwun	Standard/ Optional	Applicable PV panel type
B	1150mm	E33H E32H E32L	Standard	125mm(125mm)　M2(156mm)　G1(158mm) M4(162mm)　M6(166mm)　M10(182mm)
C	1320mm		Optional	G12(210mm)
D	800mm	E22H E22L	Standard	125mm(125mm)　M2(156mm)　G1(158mm) M4(162mm)　M6(166mm)　M10(182mm)
E	940mm		Optional	G12(210mm)

1) Kwun-E33H/E32H/E32L come standard with type B;
   Kwun-E22H/E22L come standard with type D.

2) If the size of the PV cell is G12(210mm), please inform the relevant staff in advance to replace it with type C or type E roller brush, and make up the difference according to the *"Roller Brush Assembly Price List"*.