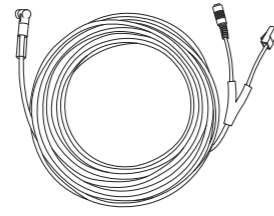


1. SVM (Top, Bottom)



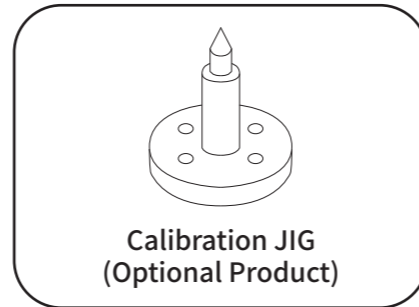
2. Power and LAN Cable



3. DC JACK

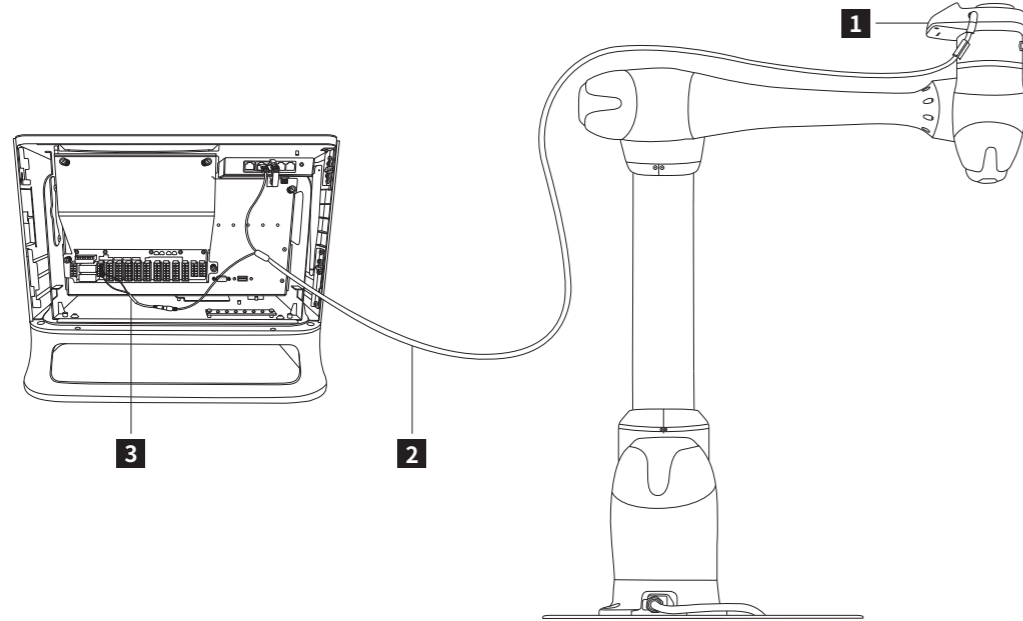


4. Pin



※ Sold Separately (Not included in basic composition)

Installation Example



No	Name	No	Name
1	SVM	3	DC JACK
2	Power and LAN Cable		

· Refer to the manual provided separately for usage. · Product life may vary depending on a number of factors including damage and wear caused by use, and Doosan Robotics does not assume responsibility for this.
 · Do not pull out the power cable while the product is powered. · Doosan Robotics does not assume responsibility for damage due to unintended operation or unforeseen accidents.

Doosan Robotics Smart Vision Module

Product Specification

Dimensions	92mm(W) X 132mm(D) X 25.6mm(H)
Weight	348g
Resolution	CMOS 2.5M pixel(1920 X 1440)
Camera	Focal length 3.4mm, Angle of view 75°
Brightness	White LED X 2ea(800Lux@WD500mm)
Communication	TCP/IP, 100Mbps
Power	24W(24V, 1A)

Warranty

The warranty period agreed with Doosan Robotics is 1 year after purchase. The warranty scope is differentiated between the full product and sub parts (AM), but the warranty period is same. However, if the Smart Vision Module is disassembled by the customer, the warranty for the module is voided. If the customer installs after purchasing SVM, follow our installation manual, please. In addition, we do not guarantee problems caused by customer carelessness.

Classification	Name	Warranty Period
Product	Smart Vision Module PKG	1 year after purchase
	Smart Vision Module	1 year after purchase
Sub Part	Camera Cover Ass'y	1 year after purchase
	CABLE, SVM EXTERNAL (10000mm)	1 year after purchase
	CABLE, SVM DC JACK (110mm)	1 year after purchase

⚠ Caution

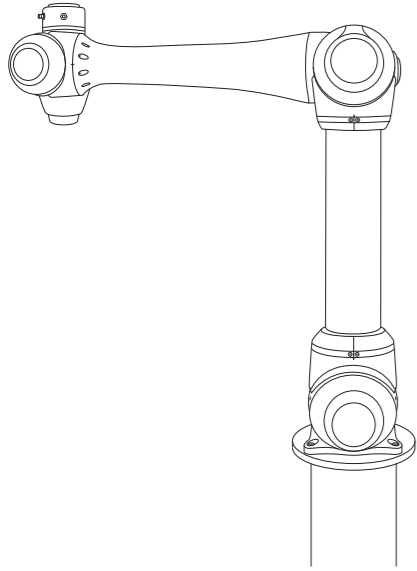
- SVM has been working properly since M2.2.1 The robot update is required to use SVM under M2.2.1. Contact the place of purchase for robot updates.
- To update SVM firmware, you must proceed with DRST v1.2.0.26 or later. Severe problems with the SVM OS can occur if the update is under an earlier version. Please note.
- When installing the robot, make sure to cut the power.
- In order not to cause cable interference, fixing to the robot with tape or using a dress pack prevents malfunctions. Cable damage caused by abnormal installation is not covered under warranty.
- When power is turned on, the LED emits light, so do not install it aimed at a person's eyes.
- Be careful not to let cable connections come in contact with a heavy or sharp object. It can cause the cable to snap.
- Product performance can be limited due to temperature increase according to the operation environment.
- Do not modify or repair the product at your own discretion. Such repairs and modifications will void the manufacturer's warranty and will limit available services.



Smart Vision Module Installation Guide

1. Robot Pose

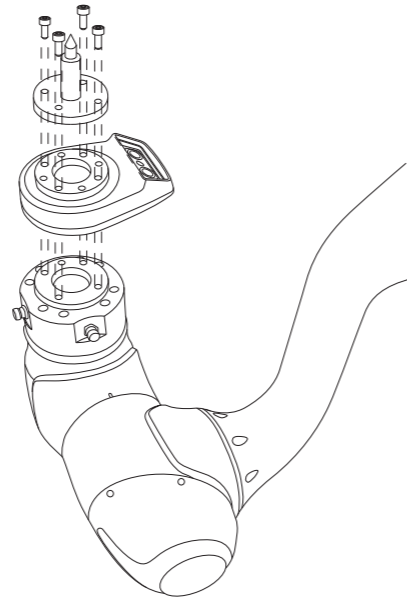
Set the robot to make a pose for easy SVM installation.



1 Go to the Jog Setting menu and set the Joint Angle at 3-axis as 90 degrees, 5-axis as -90 degrees and the remaining items as 0 degrees.

2. SVM Installation

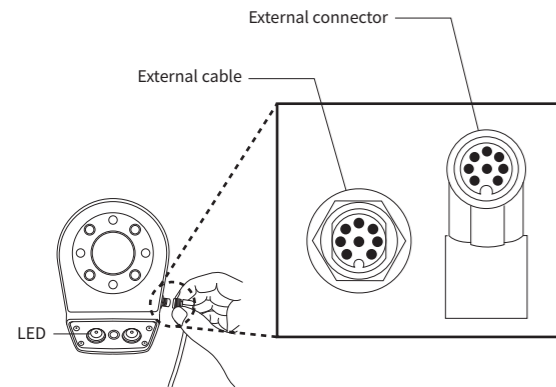
Place the SVM to the flange and use bolts to secure it.



⚠ Install the SVM where it is suitable to use. When tightening the bolts, select the appropriate screws length so that the robot flange is not damaged. (Bolts(M6 Size) are not included in basic composition. The calibration jig is optional product, therefore it shall be purchased separately.) It is recommended to use it with pins because bolts may become loose when bolted to the SVM. If loosening occurs, error may occur during calibration.

3. Power Cable Connection

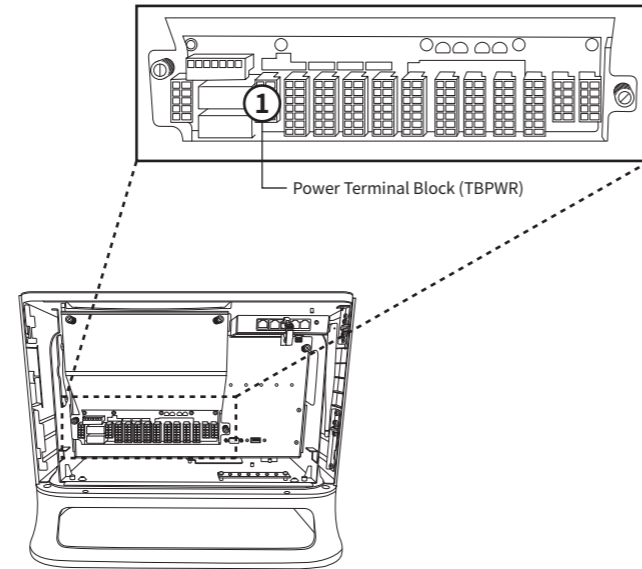
Connect the power cable to the connector slot on the right side of the SVM.



⚠ Be careful of connector direction when connecting.

4. Power Terminal Block Removal

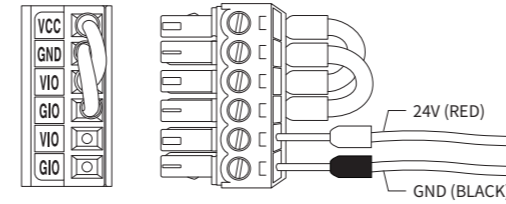
Open the door of the robot controller and remove the 1 Power Terminal Block (TBPWR) located on the bottom left.



5. Power Terminal Block Cable Removal

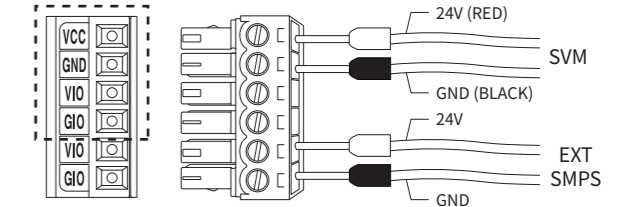
5-1. In case of less than 500mA of digital IO current usage in controller

Connect the DC JACK cable to the bottom of the power terminal block and then insert the power terminal block back into the original location.



5-2. In case of more than 500mA of digital IO current usage in controller

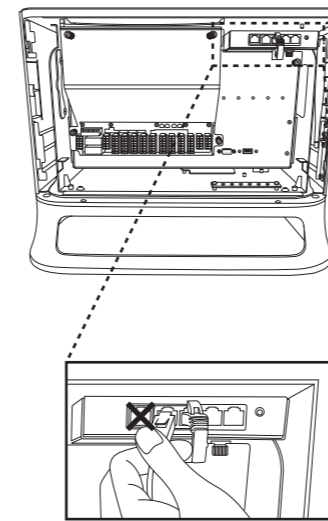
Disconnect the wires connected to the power terminal block, connect the DC JACK cable to the external SMPS power, and then insert the power terminal block back into the original location.



⚠ If you do not connect power to VIO / GIO, controller digital IO is not available.

6. LAN Cable Connection

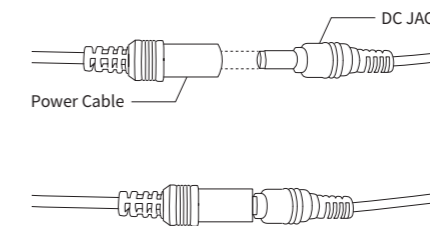
Connect the LAN cable to the LAN Port located on the top right of the Robot Controller.



⚠ Do not connect the cable to the first WAN port (for external Internet network connection) on the left.

7. DC Cable and Power Cable Connection

Connect the DC Jack connected to the Controller to the Power Cable connected to the SVM.



8. Organization

Organize cables in a way that prevents interference with movement during robot control.

