

SERVICE INSTRUCTION

- GoVision -

Model: GV100

Ver 1.0

January 2016

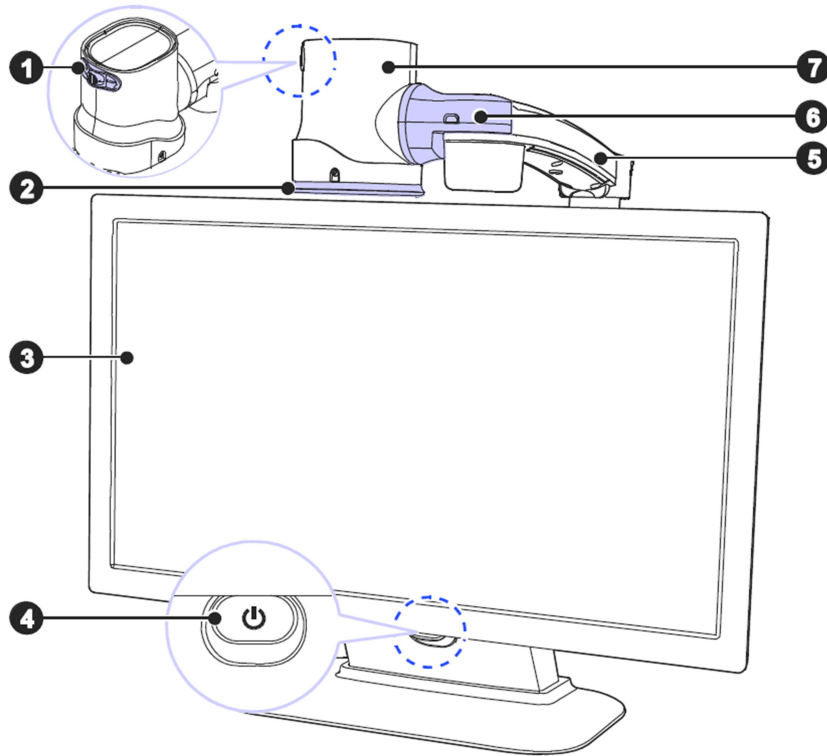
HIMS
(JAWON Medical CO., LTD)

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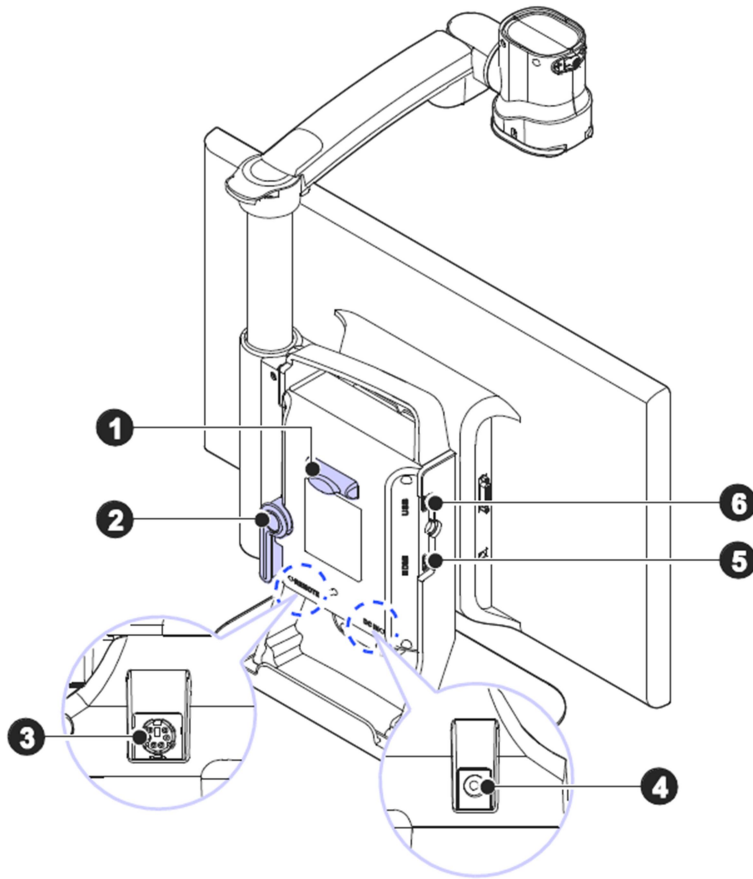
1. Hardware structure

A. Front of GoVision



- ① Jog Switch
- ② Near View Mode Lens
- ③ Monitor
- ④ Power Switch
- ⑤ Camera Arm
- ⑥ Camera Connector
- ⑦ Camera

B. Back of GoVision





- ① Remote Control Holder
- ② Lock Lever
- ③ Remote Control Port
- ④ Power Port
- ⑤ HDMI Port
- ⑥ USB Port



Before you repair the unit

Please disconnect AC adapter from the GoVision, turn off the power of GoVision before disassembling the unit.

2. Assembly





A. Tool List

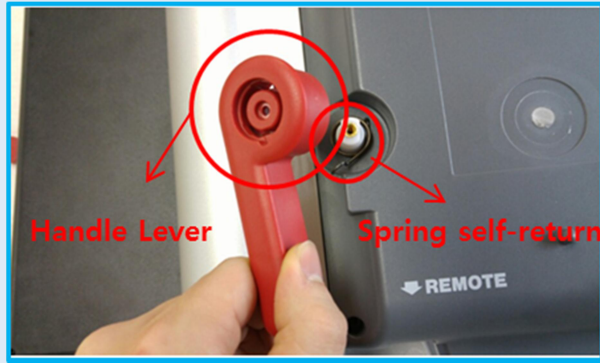
Tool name	Size	REMARK
Six angle screwdriver	7.0mm six angle socket	
Philips screwdriver	Philips screwdriver No.2	
Philips screwdriver	Philips screwdriver No.0	
Six angle wrench	5.0mm	
Torque driver	3/4 hand socket 30mm	
Torque wrench	Bolt arm socket	

Long Nose	13cm	
핀셋 Tweezers	10cm	

B. Disassembling

1) Main PCB module

Picture	Instruction
 <p>Picture 1-1</p>	<p>1) Remove the Cap Handle(ref: HI-13-00619(Mi)) which is assembled with Handle Lever(ref: HI-13-00617(Mi)) using the tweezers</p>  <p>Cap handle</p>
 <p>Picture 1-2</p>	<p>2) Remove the 7 Machine Screws M3X8L-PH(Black) from the Cover Rear(ref: HI-13-00608(Mi))</p> <p>※ Use the No2. Philips screwdriver to remove the machine screws</p>  <p>Machine Screw M3X8L-PH(Black)</p>



Picture 1-3

3) Disassemble the Handle lever(ref: HI-13-00619(Mi))and Spring self-return(ref: HI-13-00646(Mi)) from the Cover Rear(ref: HI-13-00608(Mi))



Spring Self-return(Left)
Handle Lever(Right)

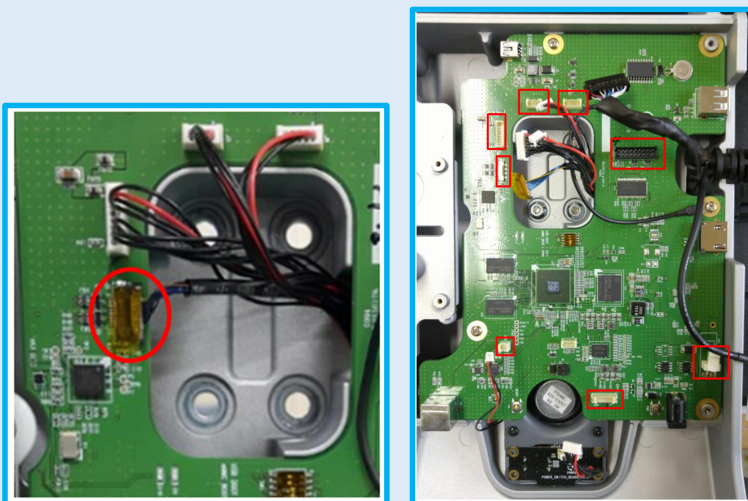


Picture 1-4

4) Lift up the Cover Rear(ref: HI-13-00608(Mi)) to disassemble.



Cover Rear

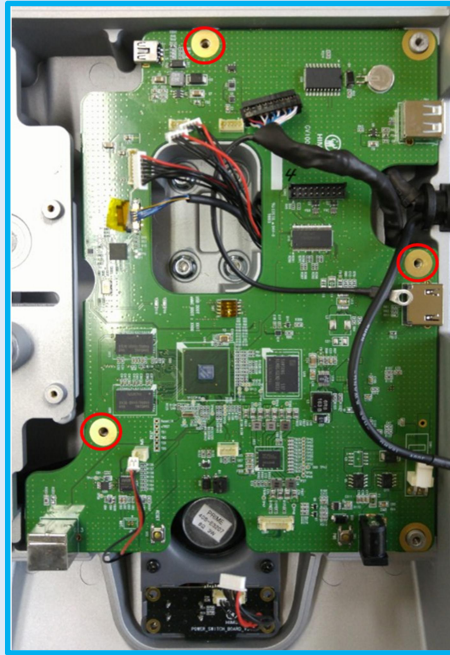


Picture 1-5

5) Disconnect the 8 Plugs from the Man PCB with strength

※ Before disassembled, remove the orange color tape on the Cable Kel

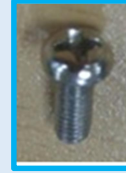
※ Do not touch component with wet hands



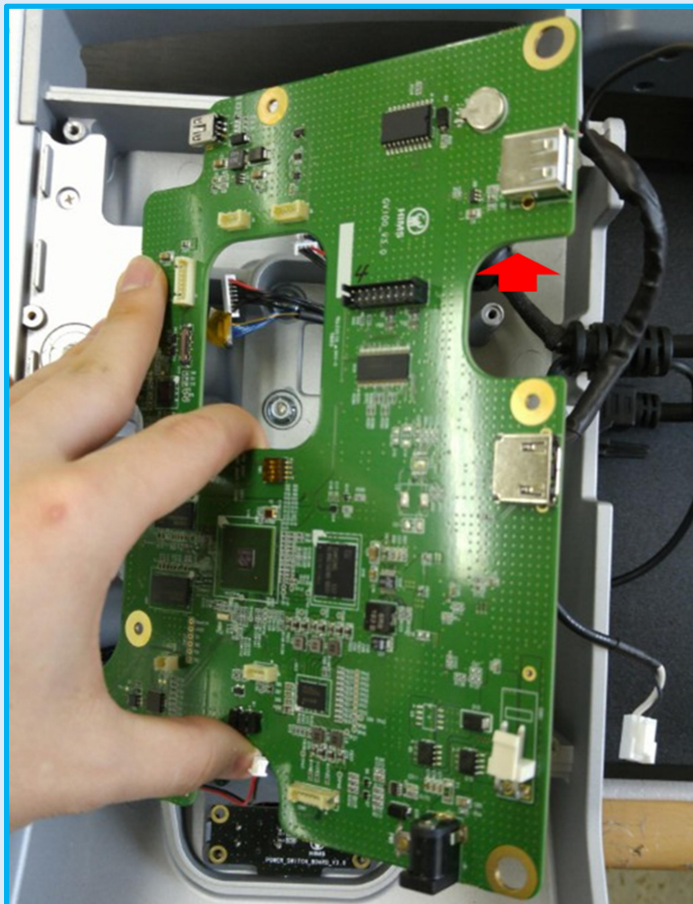
Picture 1-6

6) Remove the 3 Machine Screws M3X8L-PH(Silver) from the Main PCB.

※ Use the No.2. Philips screwdriver

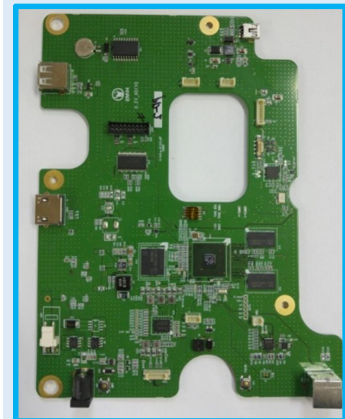


Machine Screw M3X8L-PH(Silver)



Picture 1-7

7) Detach the Main PCB(ref: HK-03-00116).



※ Please be careful to do not touch component on the Main PCB.

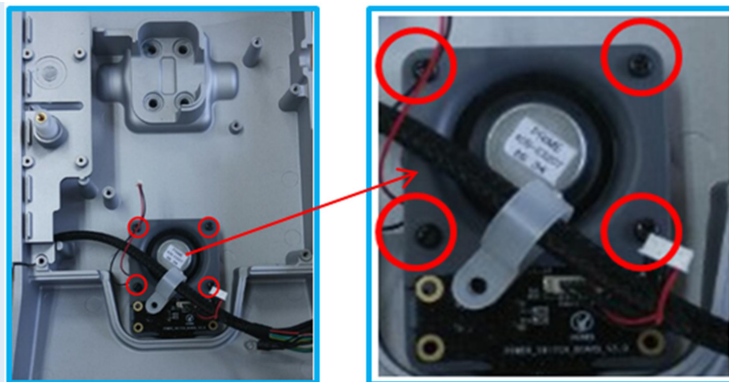


Picture 1-8

8) After you disassemble main PCB module, you will have parts as image 1-8.

2) Power/Speaker board module

Picture



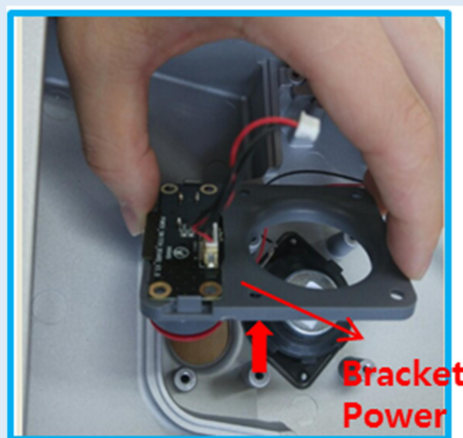
Picture 2-1

Instruction

1) Disassemble the 4 Machine Screws M3X8L-PH(Black) attached in the Bracket Power(ref: HI-13-00622(Mi)).



Machine Screw M3X8L-PH(Black)

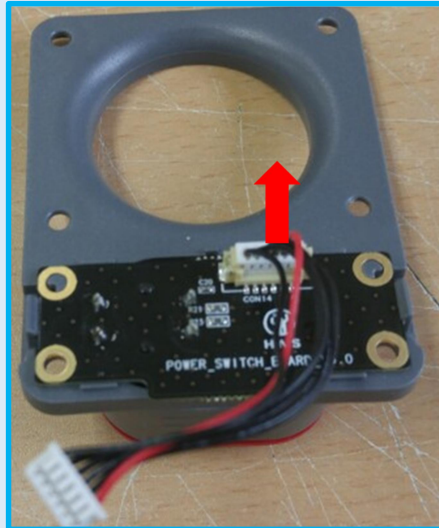


Picture 2-2

2) Lift up the Bracket Power(ref: HI-13-00622(Mi)) to disassemble it.

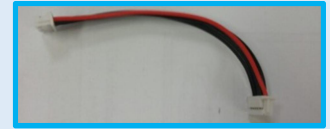


Bracket Power

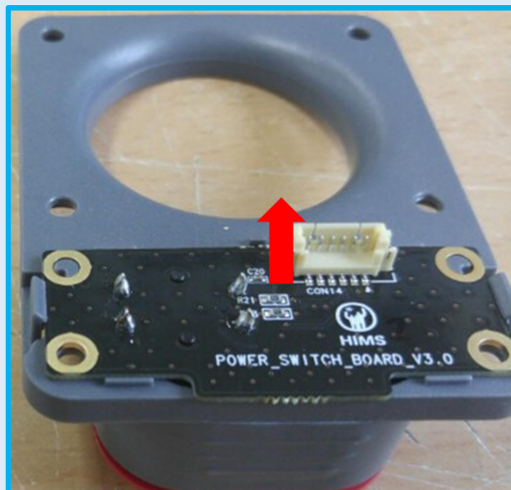


Picture 2-3

3) Take the MAIN TO POWER Switch cable(ref: HI-05-00095) from the Bracket Power.

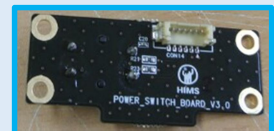


MAIN TO POWER Switch cable

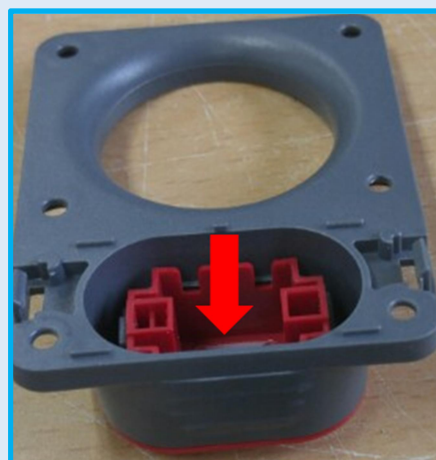


Picture 2-4

4) Take the Power Board PCB(ref: HK-03-00117) from the Bracket Power(HI-13-00622(Mi)).



Power Board PCB

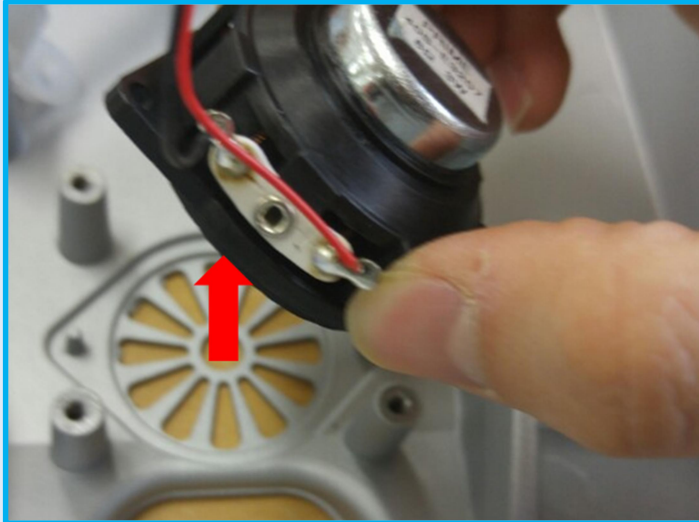


Picture 2-5

5) Pressing the button Power(ref: HI-13-00620(Mi)) and then take it from the Bracket Power(ref: HI-13-00622(Mi)).

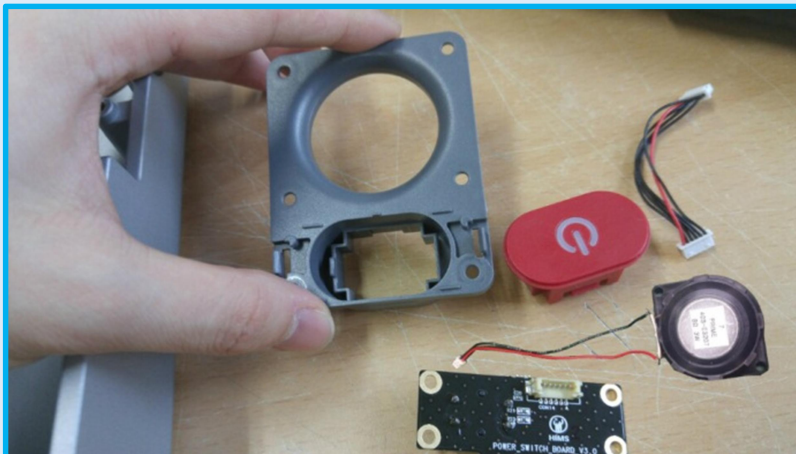


button Power



Picture 2-6

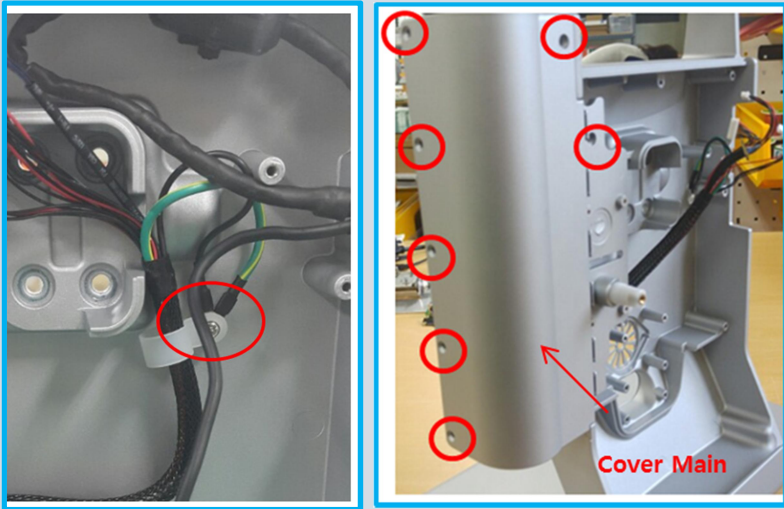

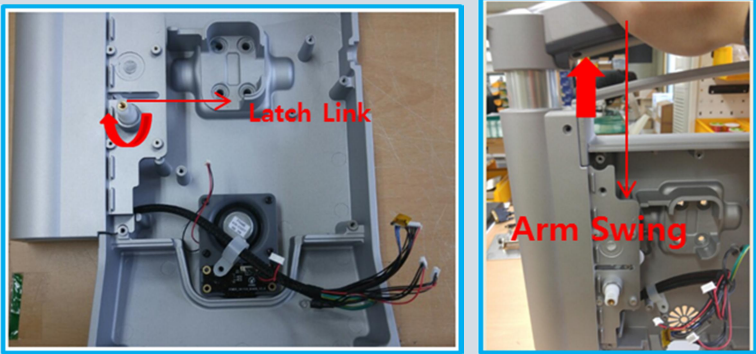

6) Lift up and disassemble the Speaker(ref: HI-18-00575) from the Frame Main(ref: HI-13-00604).

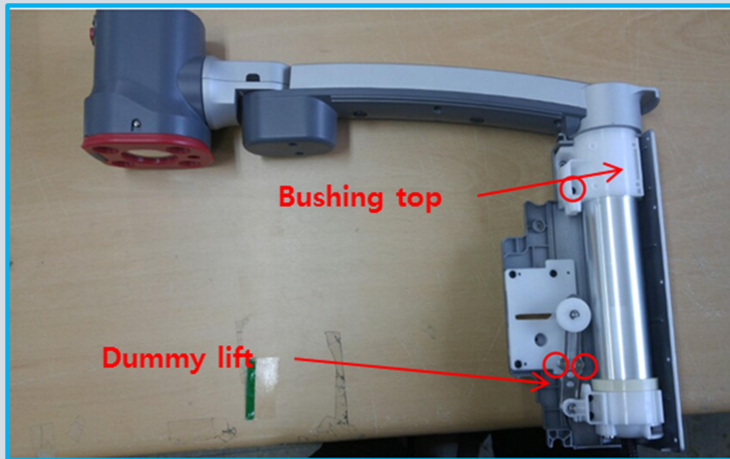


Picture 2-7

7) After you disassemble Power/Speaker Modul, you will have parts as image 2-7.

3) Arm Module

Picture	Instruction
<div data-bbox="248 360 1035 866"></div> <div data-bbox="552 896 735 931">Picture 3-1</div>	<p>1) Loosen a Machine Screw M3X8L-PH(Silver) for Net cable(ref: HI-05-00102) and Frame Main(ref: HI-13-00604). And then, loosen 7 Machine Screws M3X8L-FH for Cover Main(ref: HI-13-00609(Mi)).</p> <div data-bbox="1211 589 1422 707"></div> <p>Machine Screw M3X8L-PH(Silver)(좌)</p> <p>Machine Screw M3X8L-FH(우)</p>
<div data-bbox="264 1021 1023 1373"></div> <div data-bbox="552 1406 735 1442">Picture 3-2</div>	<p>2) Turn the Latch Link(ref: HI-13-00630(Mi)) to horizontally and then lift up the Arm Swing(ref: HI-13-00606).</p>
<div data-bbox="445 1527 845 1928"></div> <div data-bbox="552 1960 735 1995">Picture 3-3</div>	<p>3) To detach the Arm Module, turn the below part of Arm Swing(ref: HI-13-00606) which is attached to Frame Main(ref: HI-13-00604).</p>



Picture 3-4

4) In the Arm Module, disassemble 2 Tapping Screw M2.6X8L-FH from the Dummy lift(ref: HI-13-00634(Mi)) and also disassemble 1 Machine Screw M3X8L-PH from the Bushing Top(ref: HI-13-00628(Mi))



Machine Screw M3X8L-PH(Left)

Tapping Screw M2.6X8L-FH 2(Right)



Picture 3-5

5) Disassemble the Dummy lift(ref: HI-13-00634(Mi)) from the Tapping Screw M2.6X8L-FH.



Dummy lift



Picture 3-6

6) Using the tweezers, remove the E-ring.



E-ring.



Picture 3-7

7) Detach the Busing Lift(ref: HI-13-00628(Mi)) from the Link Lift(ref: HI-13-00643(Mi)).

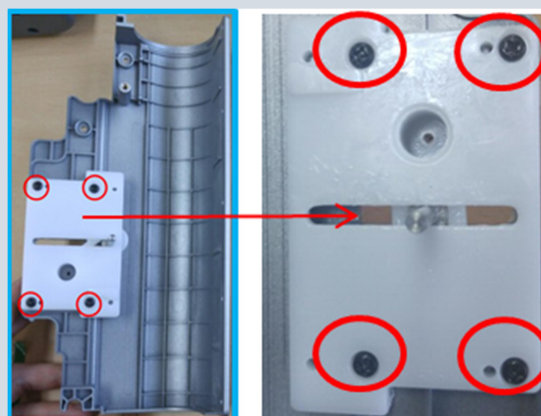


Bushing Lift



Picture 3-8

8) As shown in picture 3-8, detach the under Bar lift(ref: HI-13-00635(Mi)) and Cover Main(ref: HI-13-00609(Mi)) from the arm Swing(ref: HI-13-00606).

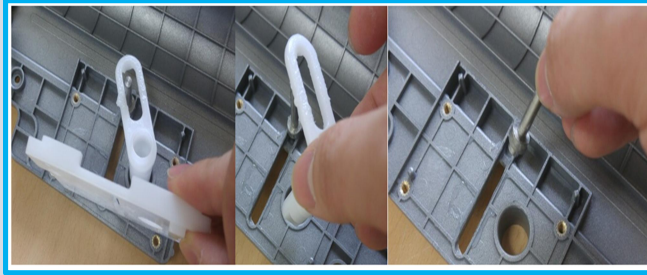


Picture 3-9

9) Loosen 4 Machine Screw M3X8L-PH(Black) from the Bracket Link(ref: HI-13-00629(Mi)).



Machine Screw M3X8L-PH(Black)

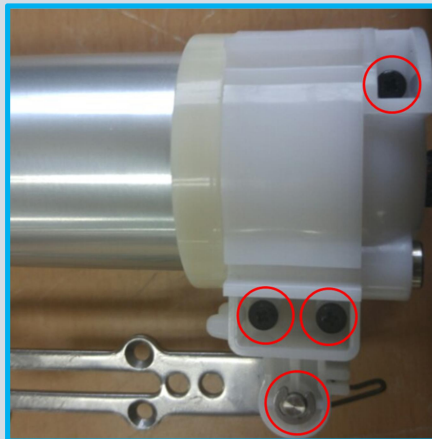


Picture 3-10

10) Detach the Bracket Link(ref: HI-13-00629(Mi)) and Latch link(ref: HI-13-00630(Mi)) from the Cover Main(ref: HI-13-00609(Mi)) and then detach the Shaft Main(HI-13-00651(Mi)) too.



11) Loosen 3 Tapping Screw M2.6X8L-PH(Black) and then detach the E-Ring using the tweezers.



Picture 3-11



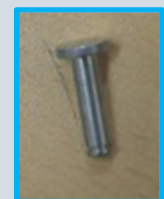
Tapping Screw M2.6X8L-PH(Black)(Left)

E-Ring(Right)

12) Push on Shaft Link(ref: HI-13-00650(Mi)) to right and remove it.



Picture 3-12



Shaft Link

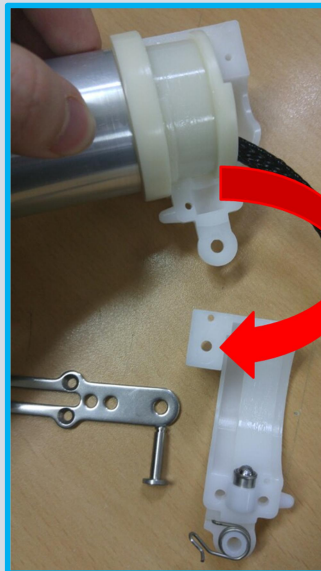


Picture 3-13

13) Detach the Link Lift(ref: HI-13-00643(Mi))



Link Lift

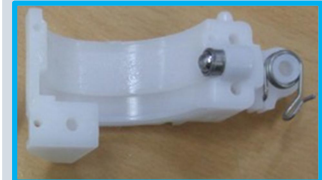


Picture 3-14

14) Detach the Stopper Rear(ref: HI-13-00626(Mi)) and Stopper Front(HI-13-00627(Mi))



Stopper Rear



Stopper Front

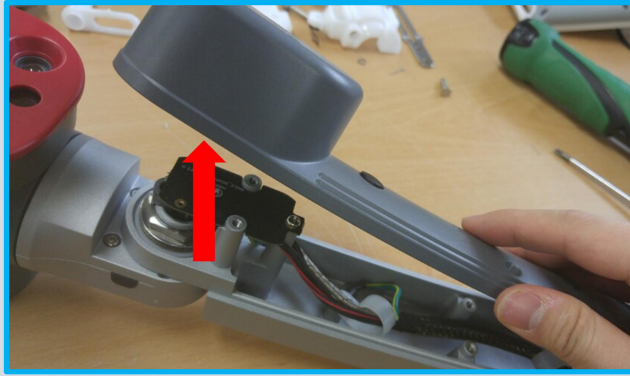


Picture 3-15

15) Detach the 6 Machine Screws M3X8L-PH(Black) from the cover swing(ref: HI-13-00610(Mi)).



Machine Screw M3X8L-PH(Black)



Picture 3-16

16) As shown in picture 3-16, lift up and remove the cover swing(ref: HI-13-00610(Mi)).



cover swing

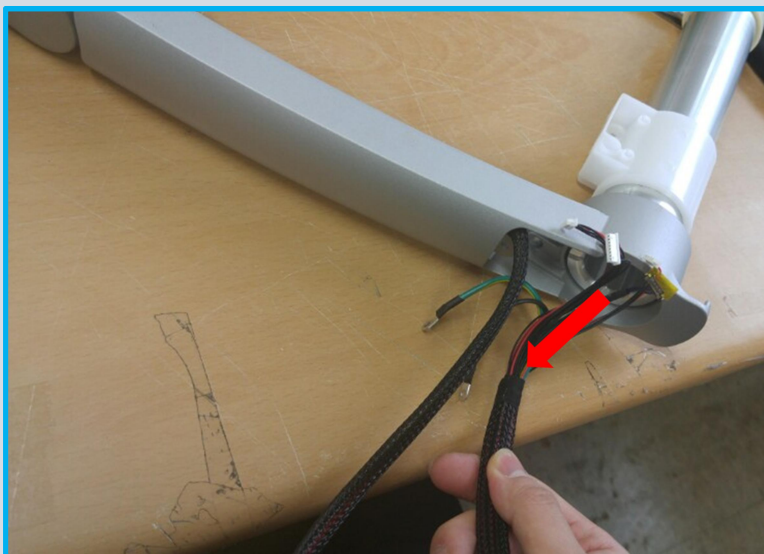


Picture 3-17

17) Using the tweezers, remove the CAP Swing(ref: HI-13-00624(Mi)).



Cap swing



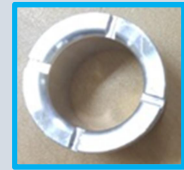
Picture 3-18

18) As shown in picture 3-18, pull on net cable.



Picture 3-19

19) Using the wrench, disassemble the Bolt Arm(ref: HI-13-00648(Mi)). Turn the wrench to counterclockwise.

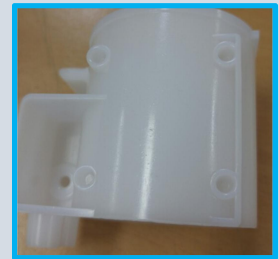


Bolt Arm



Picture 3-20

20) Pull up and remove the Bushing Top(ref: HI-13-00628(Mi))

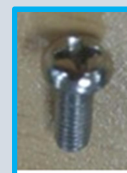


Bushing Top

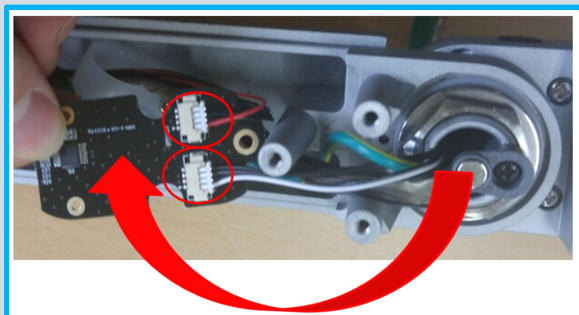


Picture 3-21

21) Detach the Machine Screw M3X8L-PH(silver).

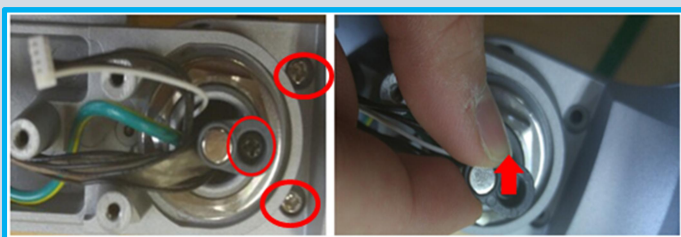


Machine Screw M3X8L-PH(silver)



Picture 3-22

22) Pull up Angle Sensor PCB-1(ref: HK-03-00117) to the left and then disassemble the 2 plug as shown in the picture 3-22.



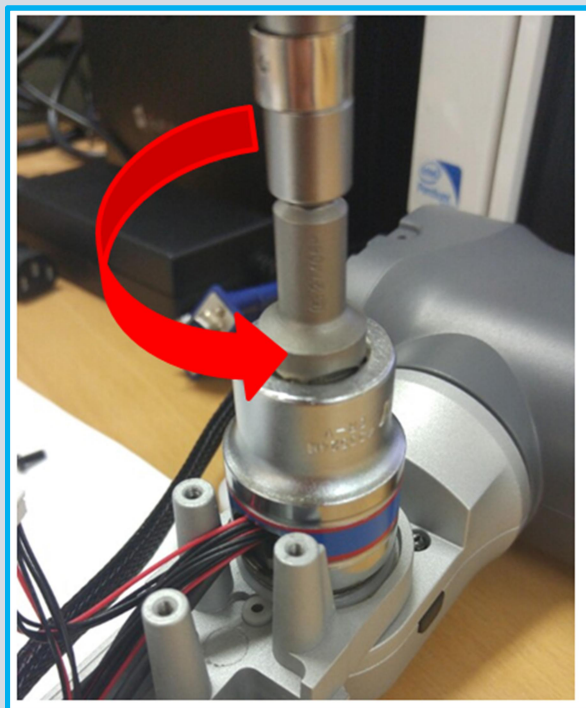
Picture 3-23

23) Remove the Machine Screw M3X8L-PH (Silver) in the front part of Swing Arm and then detach the Bracket Magnet(ref: HI-13-00623(Mi))



Bracket magnet

Machine Screw M3X8L-PH (Silver)



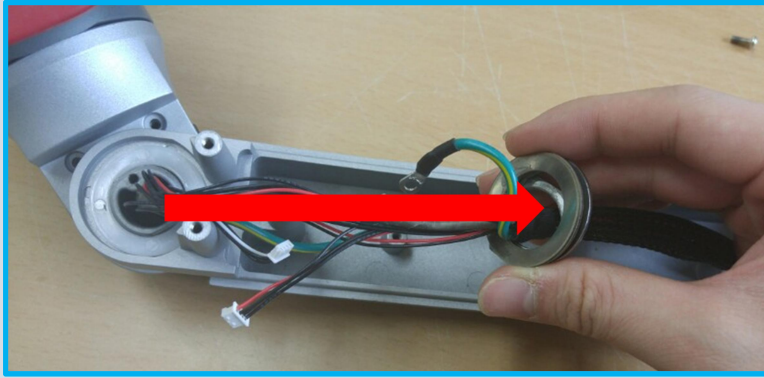
Picture 3-24

24) Using the torque driver, detach the Nut Arm(ref: HI-13-00649(Mi)) from the Arm.

Turn the torque driver to the counterclockwise way.

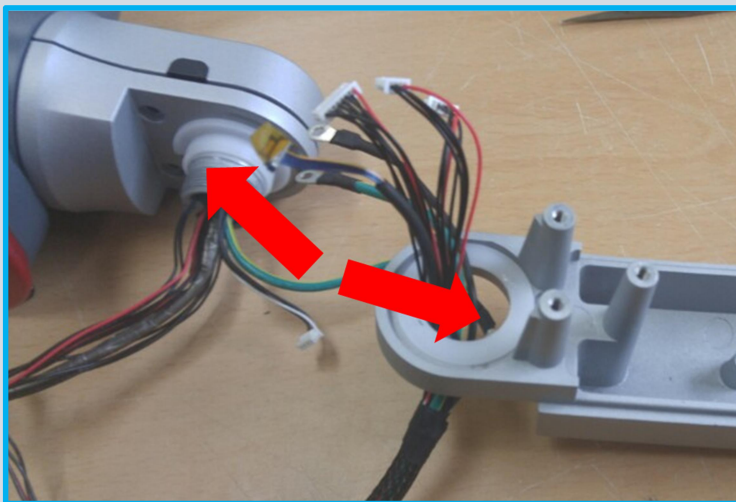


Nut Arm



Picture 3-25

25) Detach the 4 disk springs, 3 washer and a nut arm from the cable.



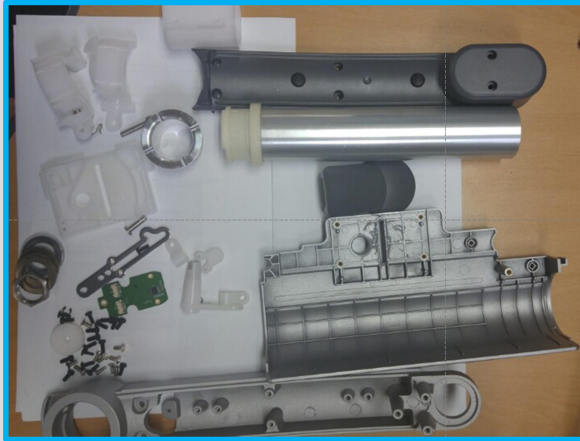
Picture 3-26

26) Disassemble the Arm and camera module.



Picture 3-27

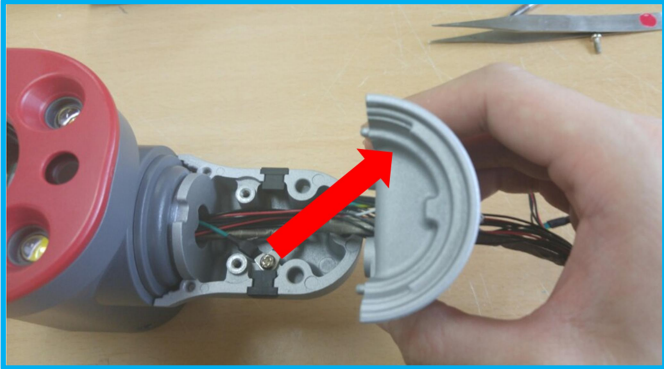
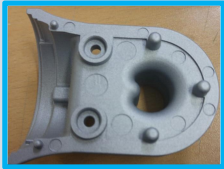
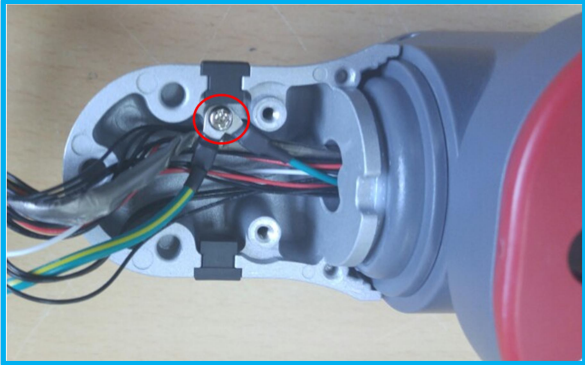

27) Disassemble the Washer Plate(ref: HI-13-00632(Mi)).

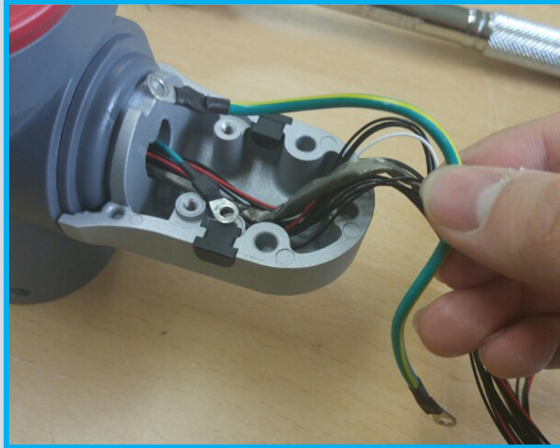


Picture 3-28

28) After you disassemble arm module, you will have parts as image 3-28.

4) Camera Module

Picture	Instruction
 <p>Picture 4-1</p>	<p>1) Detach the Upper Swivel(ref: HI-13-00607) and Lower Swivel(ref: HI-13-00608).</p>  <p>Lower Swivel</p>
 <p>Picture 4-2</p>	<p>2) Detach the Machine Screw M3X8L-PH (Silver) from the Camera Module.</p>  <p>Machine Screw M3X8L-PH (Silver)</p>

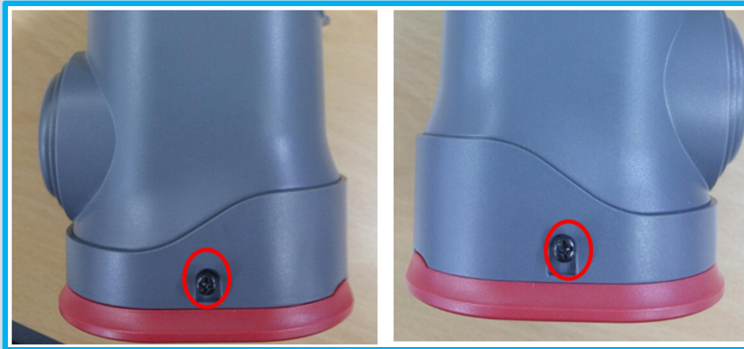


Picture 4-3

3) Detach the ARM TO ARM GND CABLE.

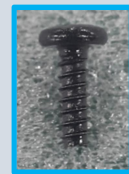


ARM TO ARM GND CABLE



Picture 4-4

4) Detach the Tapping Screw M2.6x8L(Black).



**Tapping Screw
M2.6x8L(Black)**



Picture 4-5

5) Detach the Light Board Module by pulling down it as shown in picture 4-5.



Picture 4-6

6) Detach the cable from the Light Board.

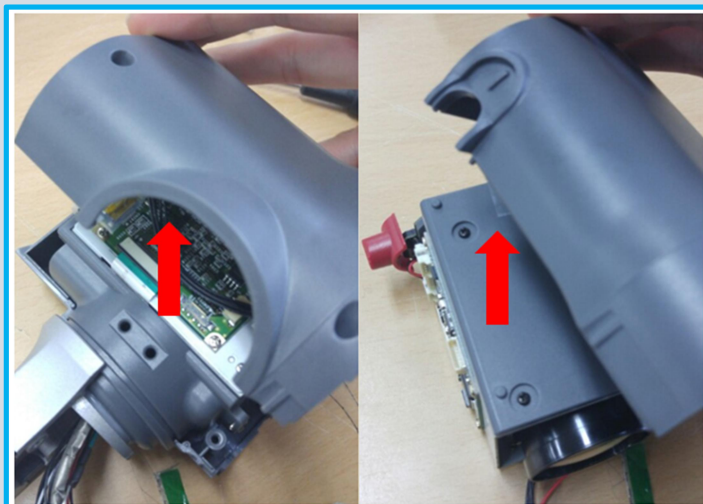


Picture 4-7

7) Detach the Tapping Screw M2.6X6L-PH from the holes as shown in picture 4-7 as red circle.



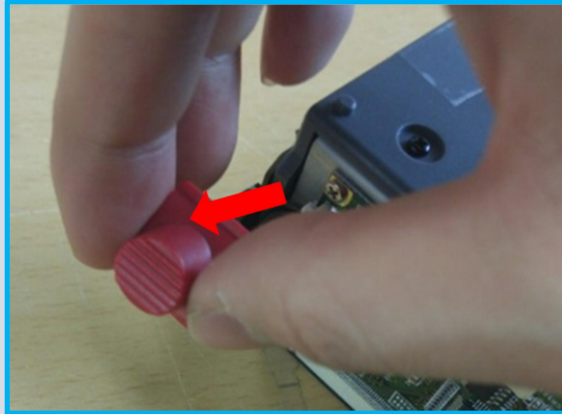
Tapping Screw M2.6X6L-PH



Picture 4-8

8) Detach the Upper Camera(ref: HI-13-00611(Mi)) and Lower Camera(ref: HI-13-00612(Mi)).



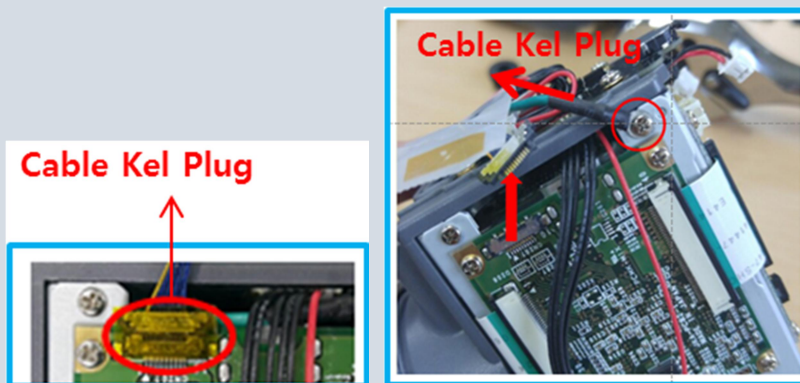


Picture 4-9

9) Detach the Knob Zoom(ref: HI-13-00618(Mi)).

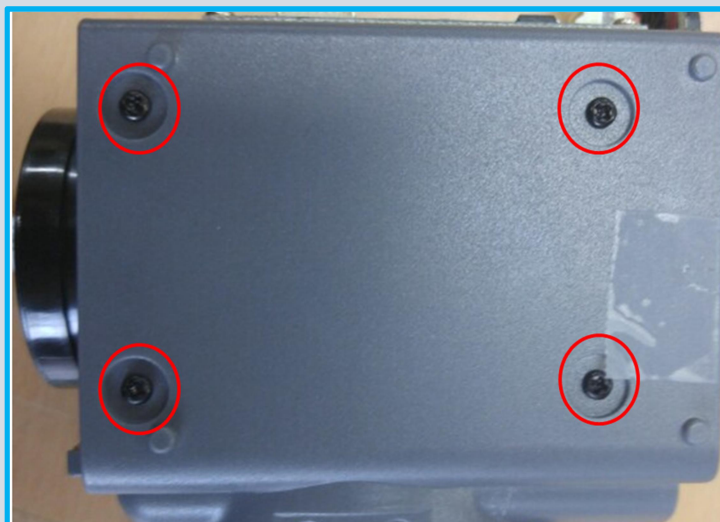


Knob Zoom



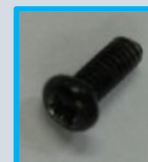
Picture 4-10

10) Remove the tape from the Cable Kel Plug and disassemble the plug. After then, loosen the screws of the camera to arm GND Cable and remove the cable. And then tighten a screw to camera.

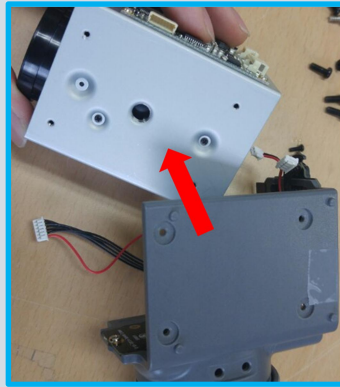


Picture 4-11

11) Detach the 4 Machine Screws M2X5L-PH from the Base Tilt(ref: HI-13-00625(Mi)).



Machine Screw M2X5L-PH

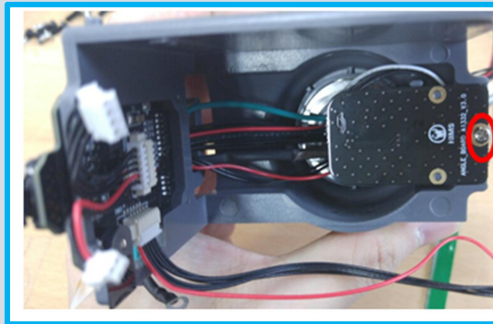


Picture 4-12

12) Detach the Base Tilt(ref: HI-13-00625(Mi)) from the camera.



Base Tilt

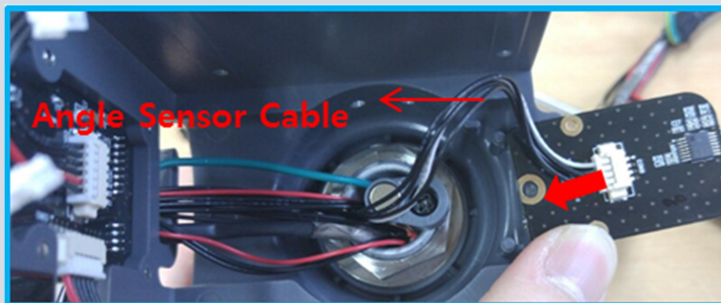


Picture 4-13

13) Detach the Tapping Screw M2.6X4L from the Angle Sensor Board-2(ref: HK-03-00117).

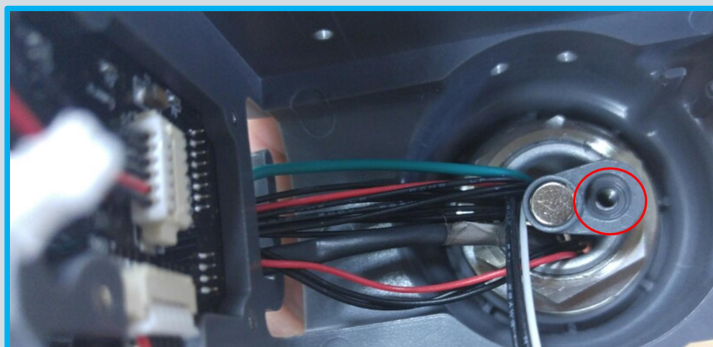


Tapping Screw M2.6X4L



Picture 4-14

14) Detach the Angle Sensor Cable-2.

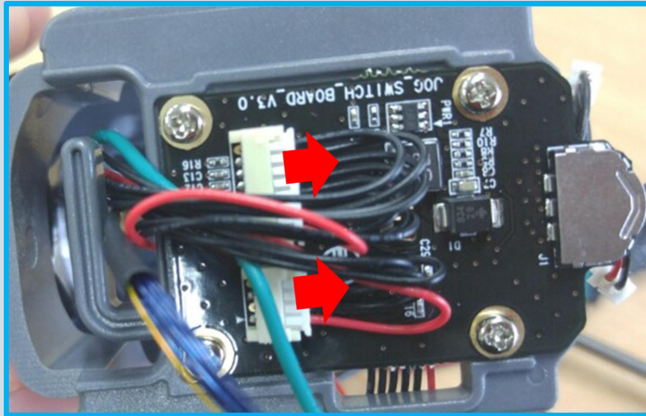


Picture 4-15

15) Detach the Machine Screw M3X8L-PH(silver) from the Bracket magnet(ref: HI-13-00623(Mi)).

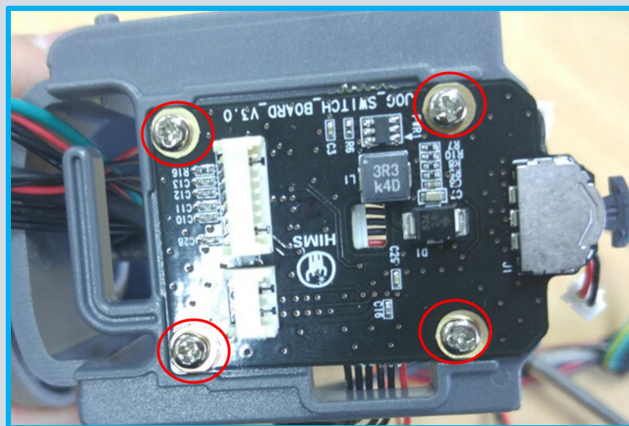


Machine Screw M3X8L-PH(silver)



Picture 4-16

16) Detach the Connection Light cable(ref: HI-05-00092) and Main to Connection cable(ref: HI-05-00096) from the Jog Switch board(ref: HK-03-00117).

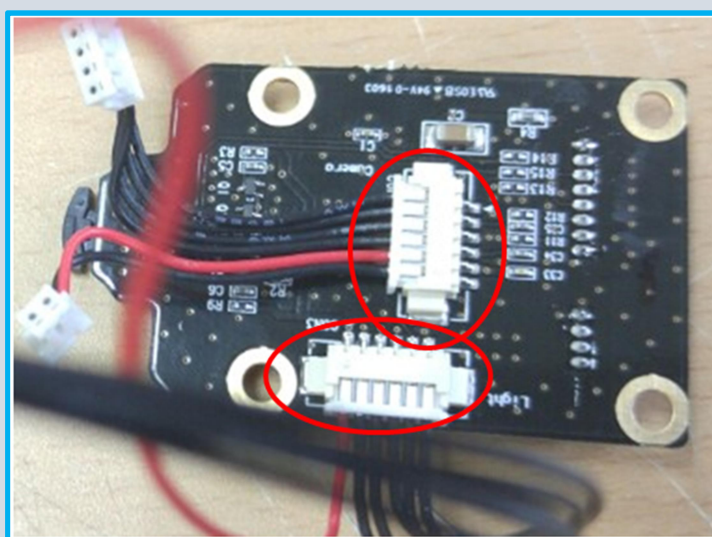


Picture 4-17

17) Detach the 4 Tapping Screw M2.6X4L from the Jog Switch Board(ref: HK-03-00117).

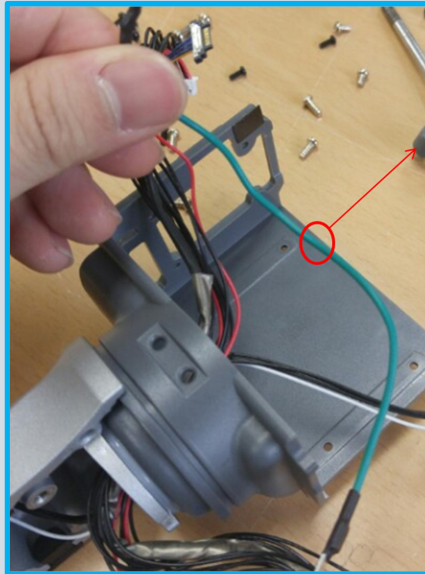


Tapping Screw M2.6X4L



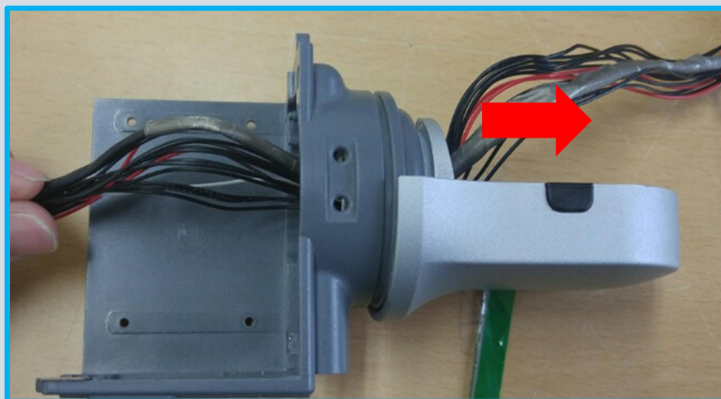
Picture 4-18

18) Detach the Connection Camera Light(ref: HI-05-00093) cable and Connection Camera Power cable(ref: HI-05-00094) from the jog switch board.



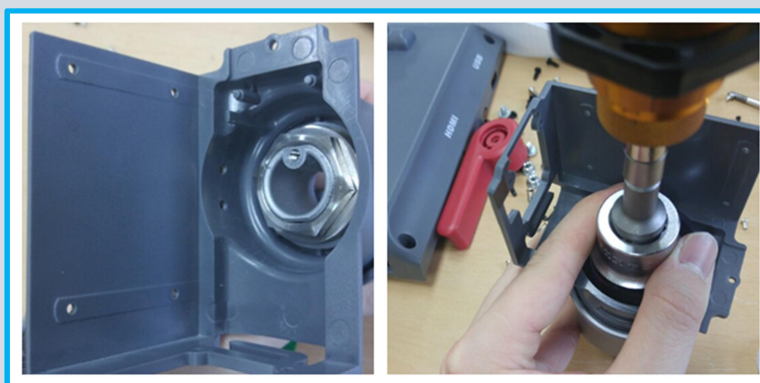
Picture 4-19

19) Detach the Camera to arm GND Cable(ref: HI-05-00101).



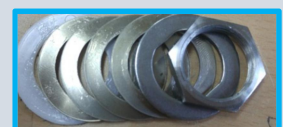
Picture 4-20

20) Detach the cable by pulling it to the base tilt (ref: HI-13-00625(Mi)) part.



Picture 4-21

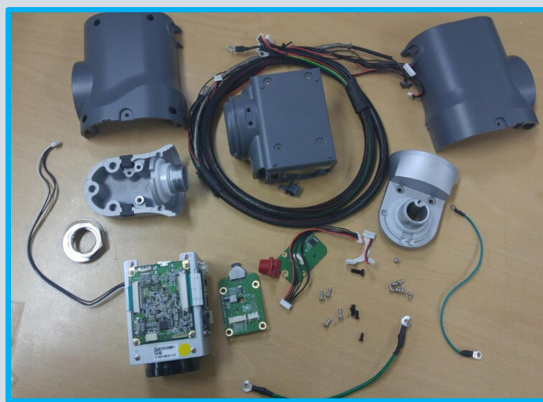
21) Using the torque driver, detach the Nut Arm(ref: HI-13-00649(Mi)) which is connecting Base tilt(ref: HI-13-00625(Mi)) and Upper Swivel (ref: HI-13-00607), Washer 3 Detect(ref: HI-13-00282), Disk Spring(ref: HI-13-00277), and Washer Plate(ref: HI-13-00632(Mi)).





Picture 4-22

22) Disassemble the base tilt(ref: HI-13-00625(Mi)) and Upper Swive(ref: HI-13-00607).



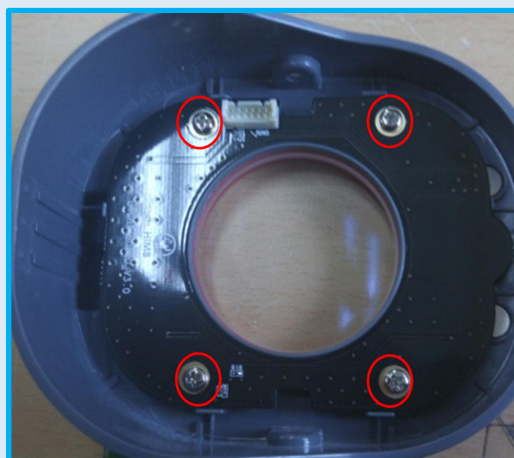
Picture 4-23

23) After you disassemble camera module, you will have parts as image 4-23.

5) Light Module

Picture

Instruction



Picture 5-1

1) Detach the Tapping Screw M2.6X4L-PH from the Light Board(ref: HK-03-00117).



Tapping Screw M2.6X4L-PH

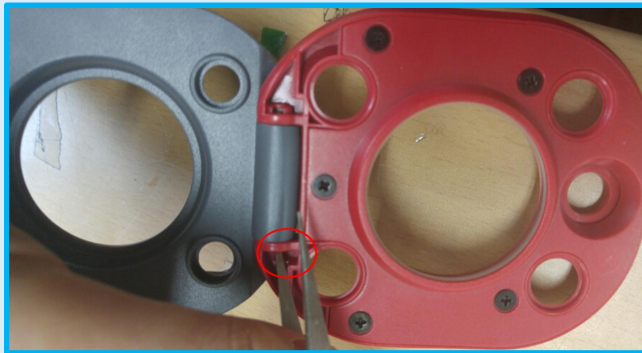


Picture 5-2

2) Detach the Light Board and Shade block(ref: HI-13-00640(Mi)) from the Front Camera.



Shade block



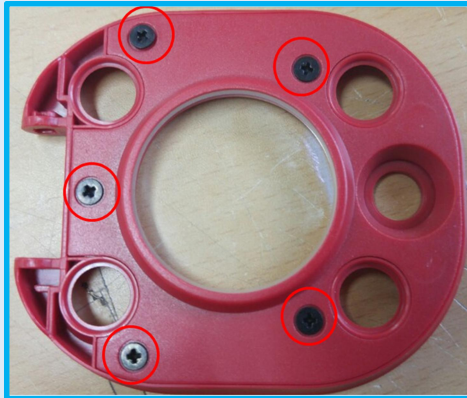
Picture 5-3

3) Using the tweezers put inside the Shaft Camera(ref: HI-13-00652(Mi)) which is located in the back part of the Cover Flip(ref: HI-13-00615(Mi)).



Picture 5-4

4) Detach the Cover Flip(ref: HI-13-00615(Mi)) from the Front Camera(ref: HI-13-00613(Mi)).

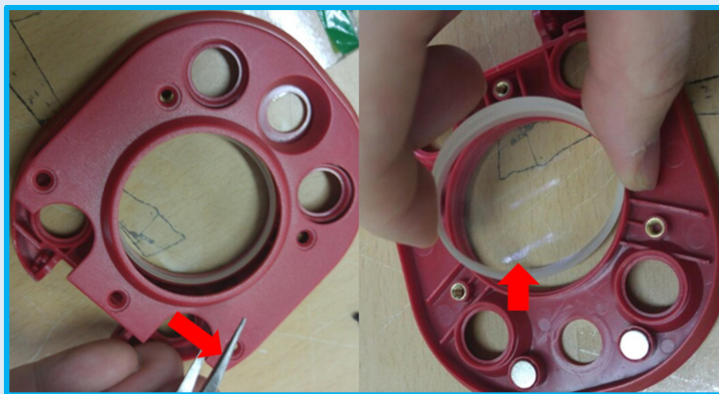


Picture 5-5

5) Detach the Machine Screw M2.6X5L-FH from the Cover Flip(ref: HI-13-00615(Mi)).



Machine Screw M2.6X5L-FH



Picture 5-6

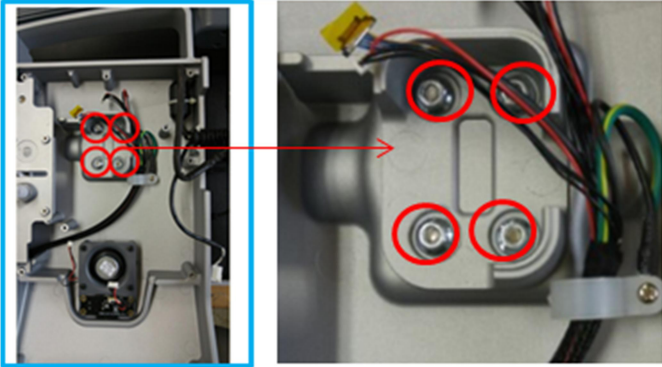

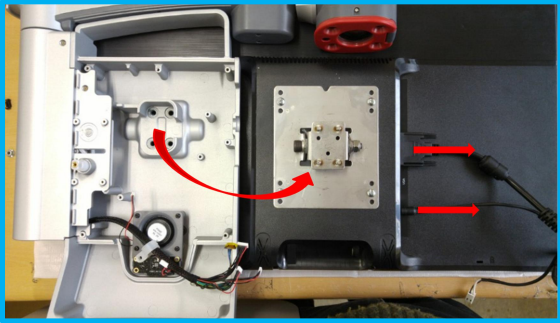
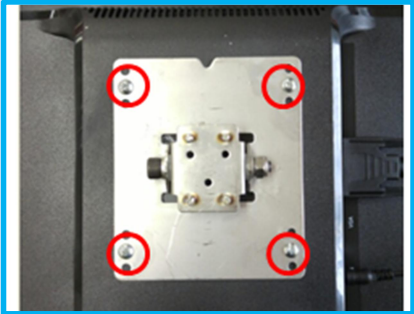

6) Detach the Cover Flip(ref: HI-13-00615(Mi)) using the tweezers and remove the Close up Lens(ref: HI-14-00016).





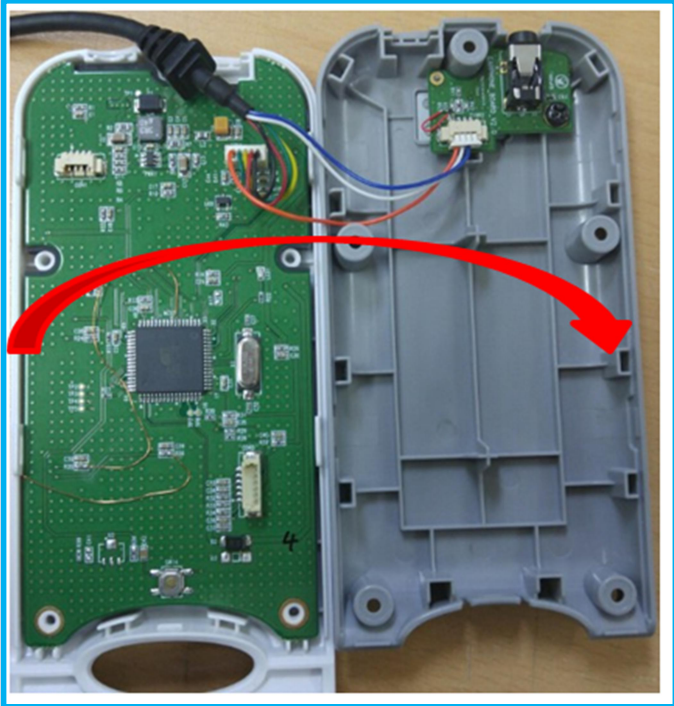
Picture 5-7

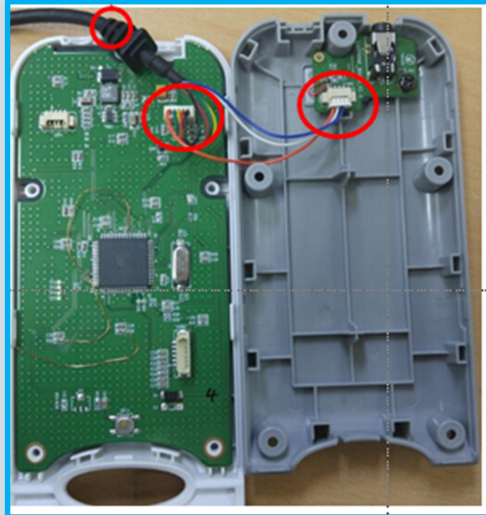
7) After you disassemble Light board module, you will have parts as image 5-7.

6) Monitor Module

Picture	Instruction
 <p data-bbox="549 741 715 770">Picture 6-1</p>	<p data-bbox="1098 277 1453 405">1) Detach the 4 Nut screws from the frame Main(ref: HI-13-00604) using hexagon driver.</p> 
 <p data-bbox="549 1227 715 1256">Picture 6-2</p>	<p data-bbox="1098 810 1453 974">2) Disassemble the Monitor Module from the Frame Main(ref: HI-13-00604). And then, detach the DVI & DC Cable(HI-05-00097)</p>
 <p data-bbox="549 1702 715 1731">Picture 6-3</p>	<p data-bbox="1098 1294 1453 1357">3) Detach the Machine Screw M4X6L-TH from the tilt base.</p>  <p data-bbox="1118 1619 1473 1644">Machine Screw M4X6L-TH</p>

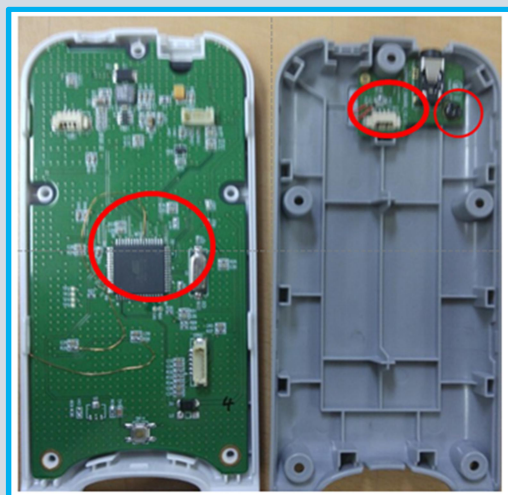
7) Controller Module

Picture	Instruction
 <p>The image shows the back of a white plastic Controller Module. Four tapping screws are circled in red: one at the top center, one on the left side, one on the right side, and one at the bottom center. A label in the center reads "2015.11.18 Update".</p> <p>Picture 7-1</p>	<p>1) Detach the Tapping Screw M2.6X6L-PH from the back part of Controller.</p>  <p>Tapping Screw M2.6X6L-PH</p>
 <p>The image shows the internal components of the Controller Module. The green circuit board is visible on the left, and the grey plastic housing is on the right. A red curved arrow points from the circuit board towards the upper and lower remote controls (Remocon) located on the right side of the housing.</p> <p>Picture 7-2</p>	<p>2) Detach the Upper Remocon GV100(ref: HI-13-00636(Mi)) and Lower Remocon(ref: HI-13-00637(Mi))</p>



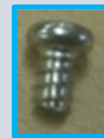
Picture 7-3

3) Disassemble the plug on the earphone board and plug on the controller board and then detach the controller cable.



Picture 7-4

4) Remove the Tapping Screw M2.6X4L-PH from the Earphone Board(ref: HK-03-00117) and then detach the Controller Board(ref: HK-03-00118) and Earphone Board(ref: HK-03-00117)



Tapping Screw M2.6X4L-PH



Picture 7-5

5) Detach the Rubber Keypad GV100(ref: HI-13-00638(Mi)).



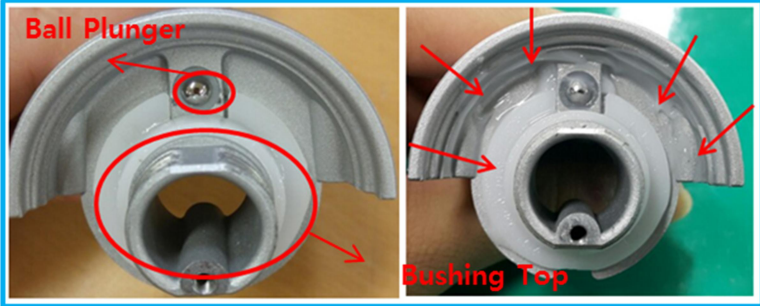
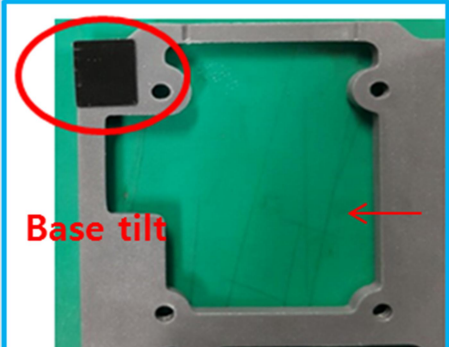
Picture 7-6

6) After you disassemble the Controller Module, you will have parts as shown in picture 7-6.

C. Assembling

- Assembly is a reverse sequence of disassembly; the followings are major check points while assembling.

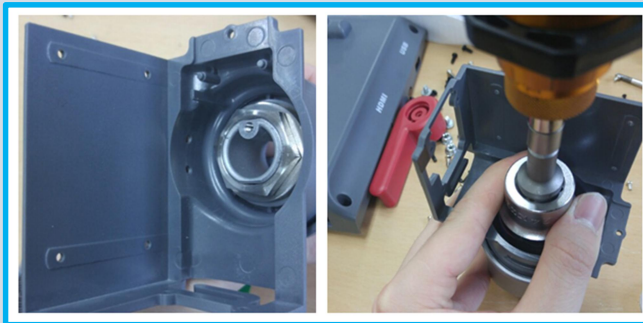
1) **Assembling the Camera module**

Picture	Instruction
 <p>Picture 1-1</p>	<p>1) Attach the Ball Plunger(Mid load) (ref: HI-13-00602) and Bushing Arm(ref: HI-13-00631(Mi)) to Upper Swivel(ref: HI-13-00607) and then apply grease around them.</p>
 <p>Picture 1-2</p>	<p>2) As shown in the picture 1-2, attach the INSULATOR-TILT-BASE to surface as red circle in the picture 1-2 on the base tilt</p>



Picture 1-3

3) After assemble the base tilt and upper swivel, apply the Loctite to arm nut to prevent assembled part are getting loose.

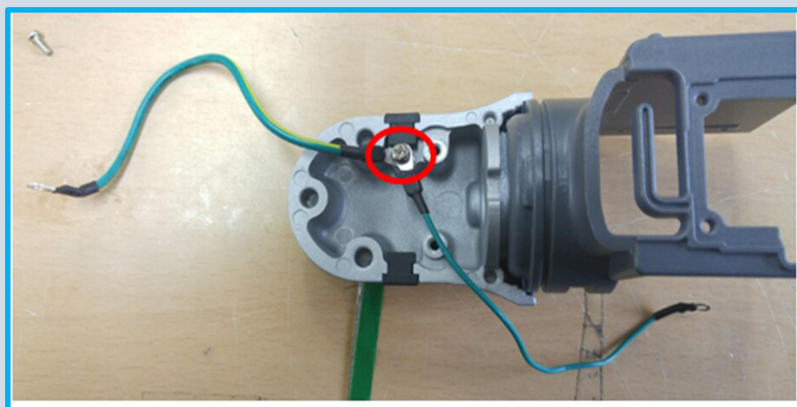


Picture 1-4

4) Assemble the 4 Disk Spring(ref: HI-13-00277), Washer 3 Detect(ref: HI-13-00282), Nut Arm(ref: HI-13-00649(Mi)) in order. After then, using the torque driver tighten them.

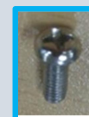
※ **Round side of disk Spring should be put arm nut side. Also, curved inside side of arm nut should be facing up side.**

Size of torque driver is 3.5kgf x cm.

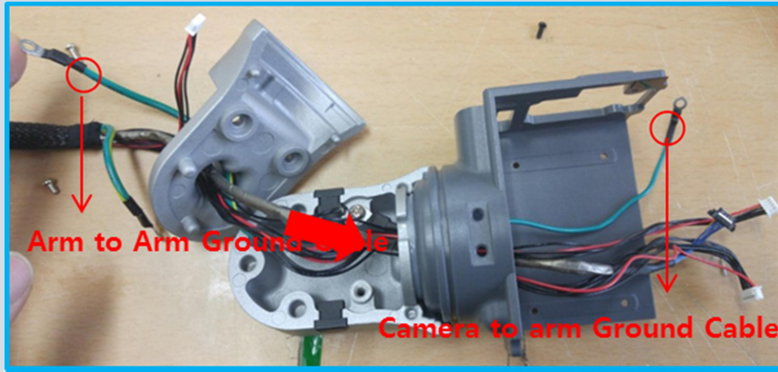


Picture 1-5

5) Connect the Arm to Arm Ground Cable(ref: HI-05-00100), Camera to Arm Ground Cable(ref: HI-05-00101) to Machine Screw M3X8L(Silver) in the middle of Upper Swivel(ref: HI-13-00607).



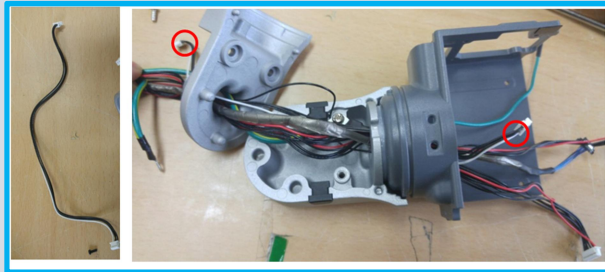
Machine Screw M3X8L(Silver)



Picture 1-6

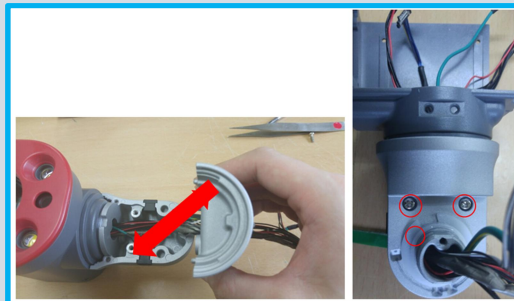
6) Pull the Arm to Arm Ground Cable(ref: HI-05-00100) in the left Lower Swivel(ref: HI-13-00608) as long as possible.

After then, pull the Camera to arm Ground Cable(ref: HI-05-00101) to base tilt(ref: HI-13-00625(Mi)) part. As shown in the picture 1-6, passing through the nut cable, Lower Swivel(ref: HI-13-00612(Mi)) and Upper Swivel(ref: HI-13-00611(Mi)).



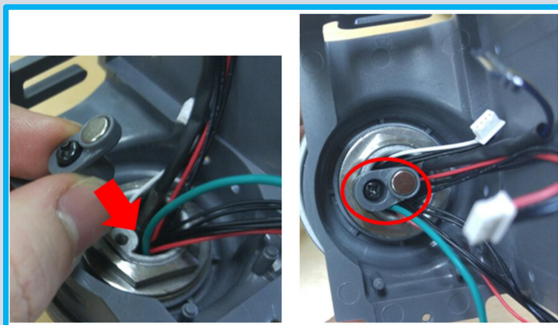
Picture 1-7

7) Passing through the Angle Sensor Cable-2(ref: HI-05-00091) to Lower Swivel(ref: HI-13-00608) and Upper Swivel(ref: HI-13-00607). Length of Angle Sensor Cable-2 should be around 3 cm.



Picture 1-8

8) Close the Lower Swivel(ref: HI-13-00608) and Upper Swivel(ref: HI-13-00607) connected Bushing Arm(ref: HI-13-00631(Mi)) and then tighten them using the Machine Screw M3X8L-PH(Silver).

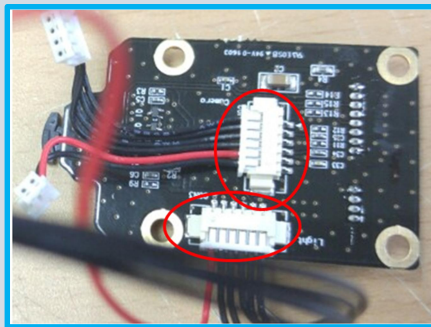
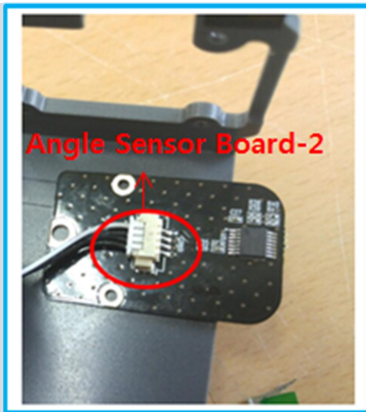


Picture 1-9

9) Attach the Bracket Magnet(ref: HI-13-00623(Mi)) to Nut Arm(ref: HI-13-00649(Mi)) and then fix them using Machine Screw M3X8L-PH(Silver).

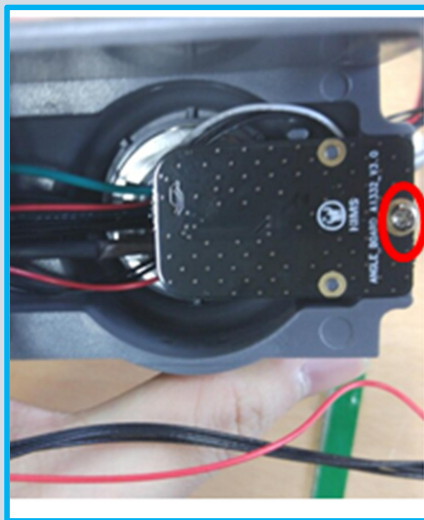


Machine Screw M3X8L-PH(Silver)



Picture 1-10

10) Connect Angle Sensor Board-2(ref: HK-03-00117) and Angle Sensor Cable-2(ref: HI-05-00091). After then, connect Jog Switch Board(ref: HK-03-00117), Connection Camera Light cable(ref: HI-05-00092) and Connection Camera Power cable(ref: HI-05-00094)



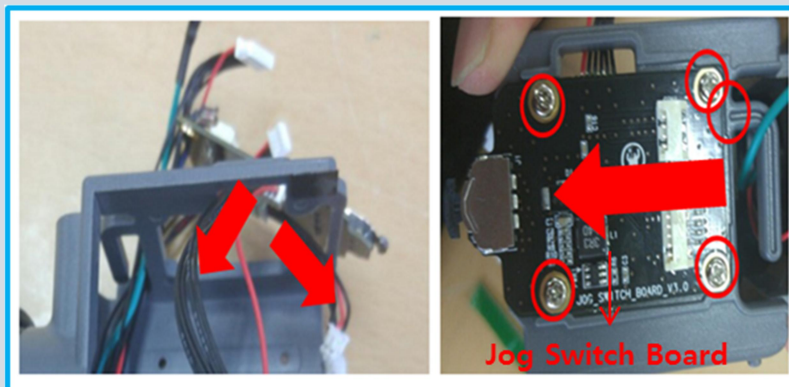
Picture 1-11

11) Tighten Angle Sensor Board-2(ref: HK-03-00117) with Tapping Screw M2.6X4L-PH.

※ Cable should not be placed in the space between the magnet angle sensors.



Tapping Screw M2.6X4L-PH

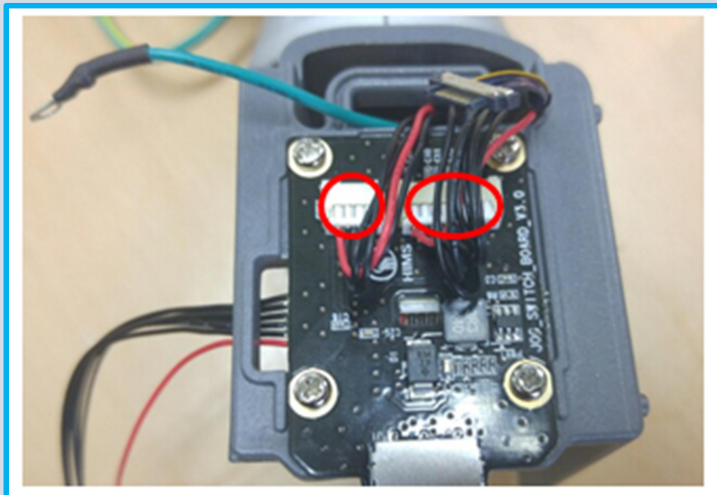


Picture 1-12

12) Put the Connection Camera Light cable(ref: HI-05-00093), Connection Camera Power cable(ref: HI-05-00094) in the Jog Switch Board(ref: HK-03-00117) to inside of base tilt(ref: HI-13-00625(Mi)). While pushing the Jog Switch Board to Jog Switch direction, tighten them using Tapping Screw M2.6X4L-PH.

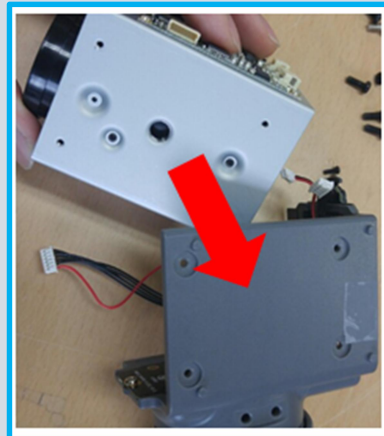


Tapping Screw M2.6X4L-PH



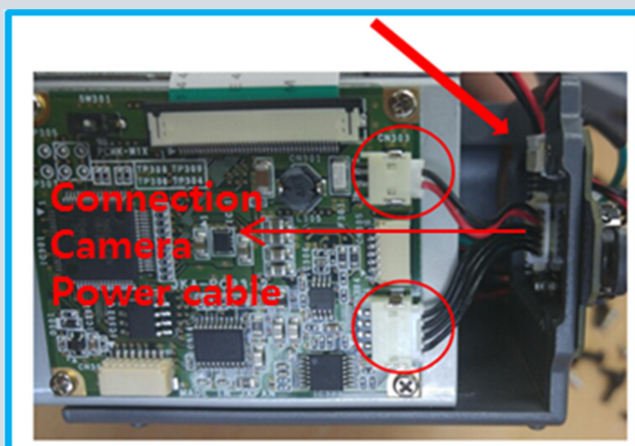
Picture 1-13

13) Connect Main to Connection cable(ref: HI-05-00096) and Connection Light cable(ref: HI-05-0009) to Jog Switch Board(ref: HK-03-00117).



Picture 1-14

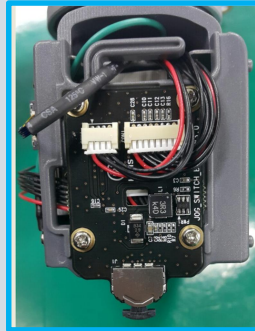
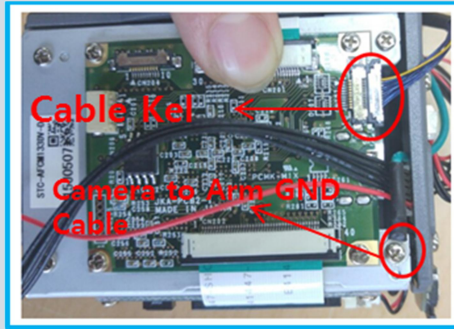
14) Connect Base tilt camera as shown in the image 1-14.



Picture 1-15

15) Connect plug from the Connection Camera Power cable(ref: HI-05-00094) to camera.

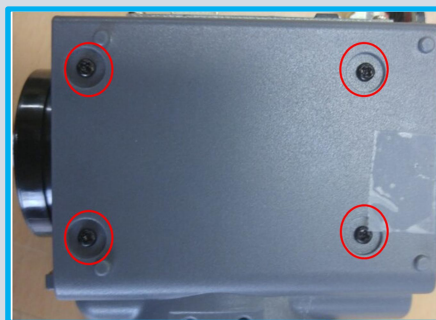
※ Cable should be placed in the inside of camera.



Picture 1-16

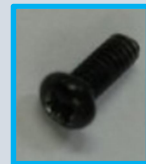
16) Connect cable kel to camera.
Loosen the screw of camera
Earthing camera to arm GND cable

※ **Cables should be arranged as shown in picture 1-16.**

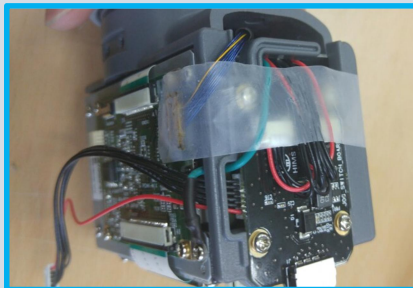
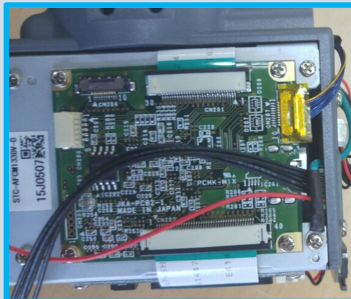


Picture 1-17

17) Tighten Machine Screw M2X5L-PH to Base tilt(ref: HI-13-00625(Mi)) to fix the camera.

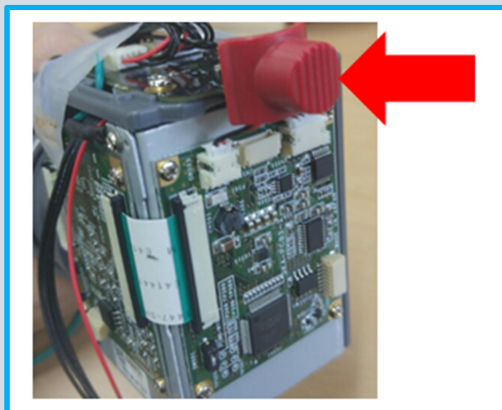


Machine Screw M2X5L-PH



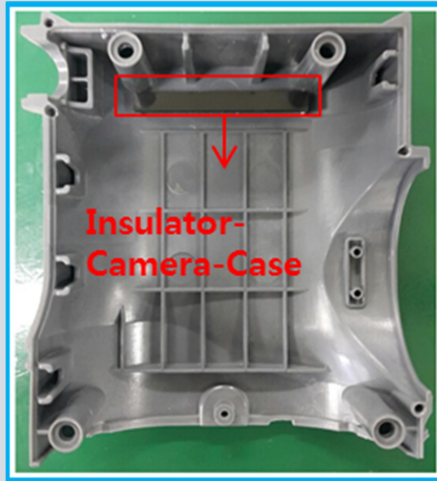
Picture 1-18

18) Connect Cable Kel using the ground tape. After then, wrap the cables which are connected to camera and Jog Switch Board using the tape.



Picture 1-19

19) Connect the Knob Zoom(ref: HI-13-00618(Mi)) to jog switch board.



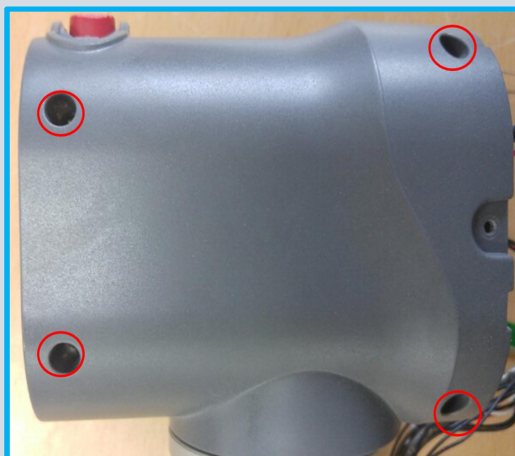
Picture 1-20

20) As shown in the picture 1-20, insert Insulator-Camera-Case to Upper camera(ref: HI-13-00611(Mi)).



Picture 1-21

21) Close the camera with Upper Camera(ref: HI-13-00611(Mi)) and Lower Camera(ref: HI-13-00612(Mi)).



Picture 1-22

22) Tighten the 4 Tapping Screws M2.6X6L-PH using the screw driver.



Tapping Screw M2.6X6L-PH



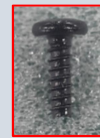
Picture 1-23

23) Connect Light Board(ref: HK-03-00117) and Connection Camera Light Cable(ref: HI-05-00093). After then, cover the Light Module to upward.




Picture 1-24

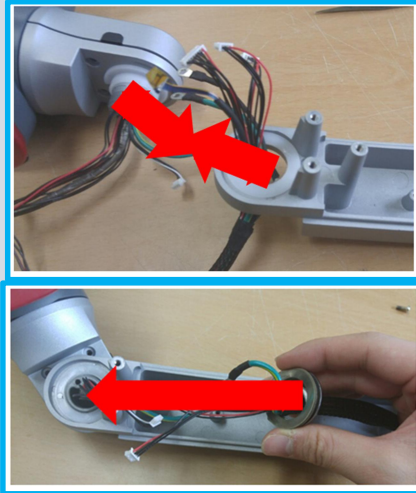
24) Tighten the Tapping Screw M2.6X8L-PH(Black).



Tapping Screw M2.6X8L-PH(Black)

2) Assembling the ARM Swing module

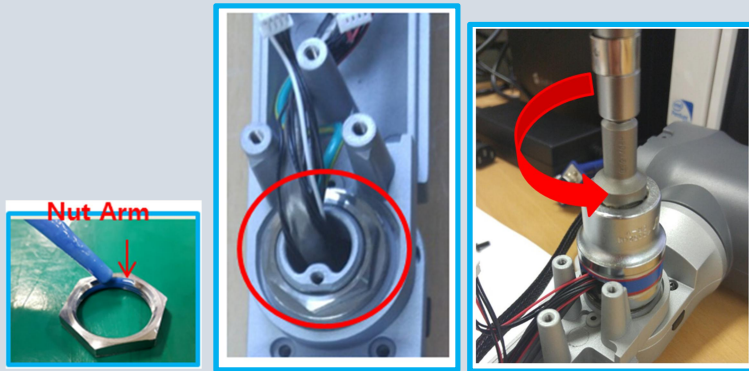
Picture	Instruction
 <p>Picture 2-1</p>	<p>1) Connect the ball plunger(middle load) to swing arm and then apply the grease.</p> <p>Insert the Bushing ARM(ref: HI-13-00631(Mi)) and then apply the grease again.</p>



Picture 2-2

2) Passing the net cable from the camera module to Swing Arm(HI-13-00606). After then, put 4 Disk Springs(ref: HI-13-00277), Washer 3 Detect(ref: HI-13-00282) and Nut Arm(ref: HI-13-00649(Mi)) in order.

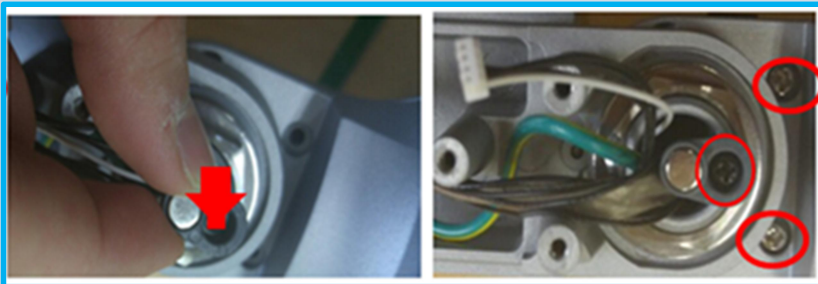
※ Round side of disk spring should be facing to arm nut side. Curved par of Arm Nut should be facing to upward.



Picture 2-3

3) Apply Loctite to inside of Nut Arm(ref: HI-13-00649(Mi)). After then, tighten nut arm using the torque driver clockwise.

※ Adjust size of torque driver to 3.5kgf x cm.



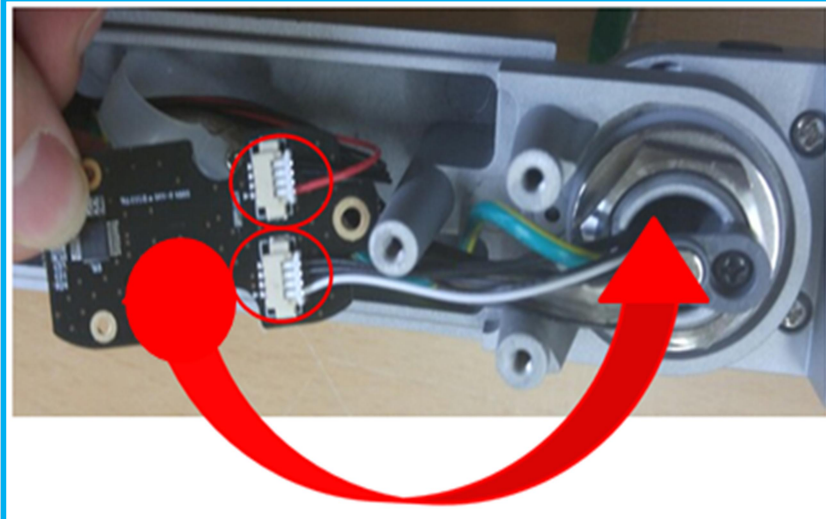
Picture 2-4

4) Using the Machine Screw M3X8L-PH(Silver), tighten Bracket Magnet(ref: HI-13-00622(Mi)) to Arm nut(ref: HI-13-00649(Mi)).

Using the Machine Screw M3X8L-PH(Silver), tighten the Upper Swivel(ref: HI-13-00607) and Low Swivel(ref: HI-13-00608) connecting hole.



Machine Screw M3X8L-PH(Silver)



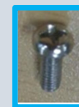
Picture 2-5

5) Connect Angle Sensor Cable-2(ref: HI-05-00091) and Angle Sensor Cable-1(ref: HI-05-00090) to Angle Sensor Board-1(ref: HK-03-00117) and then, close them to arrow direction as shown in the picture 2-5.

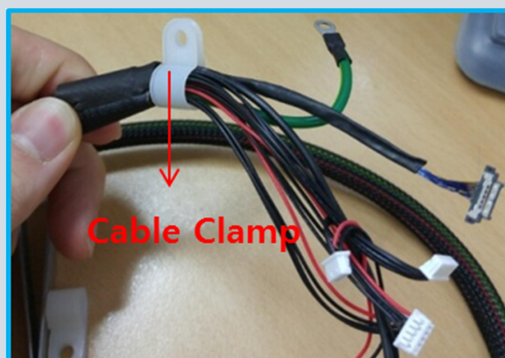


Picture 2-6

6) Fix the Angle Sensor Board-1(ref: HK-03-00117) using the Machine Screw M3X8L-PH(Silver).

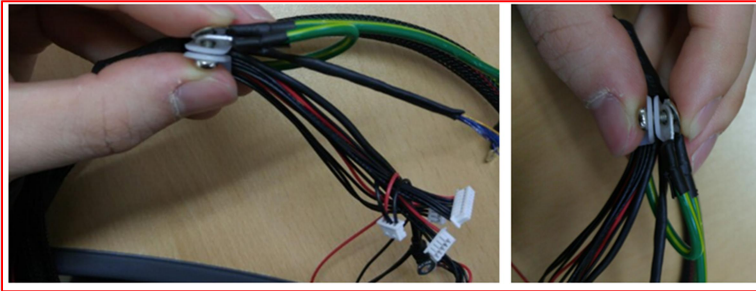


Machine Screw M3X8L-PH(Silver)



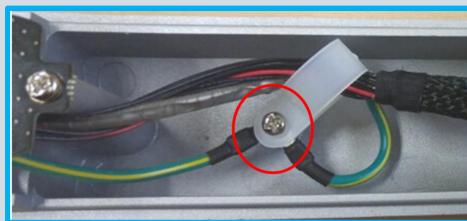
7) Attach the cable clamp to up part of net cable.

Picture 2-7



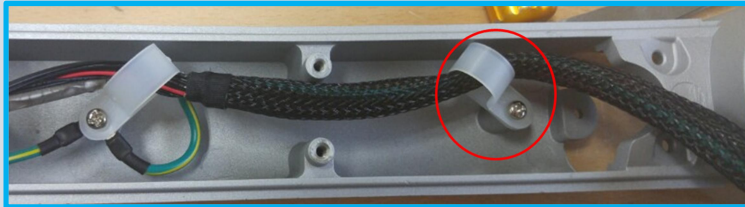
Picture 2-8

8) As shown in the picture 2-8, using the M3X8L-PH(Silver) screw, passing the Arm to Main GND Cable from the net cable below the cable clamp and Camera to Arm GND Cable(ARM TO ARM GND CABLE) which is attached to camera module.



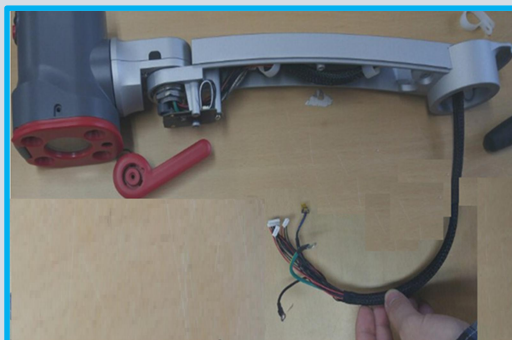
Picture 2-9

9) Attach the cable clamp with screw band to front part of Swing Arm(ref: HI-13-00606).



Picture 2-10


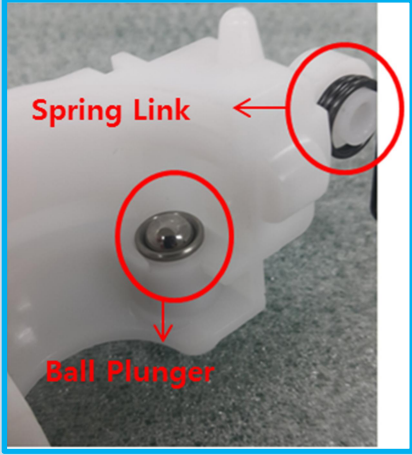
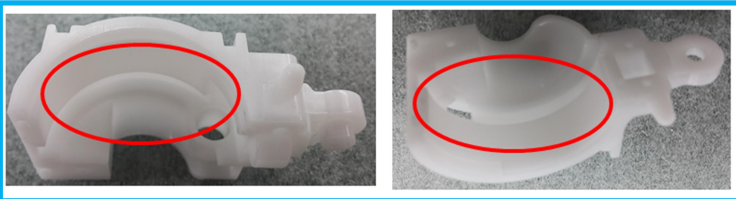
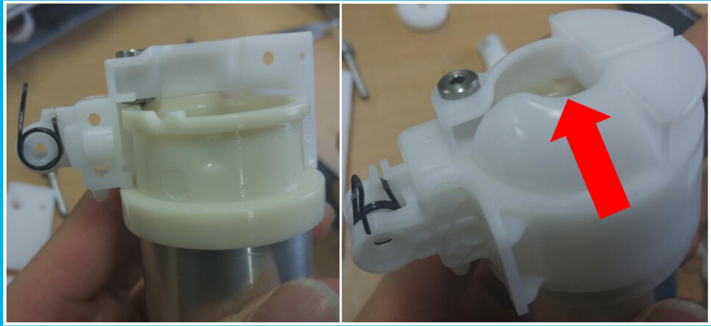
10) Connect the cable clamp to back part of net cable and then, connect cable clamp to hole in the back side of Swing Arm(ref: HI-13-00606) using the Machine Screw M3X8L-PH(Silver).

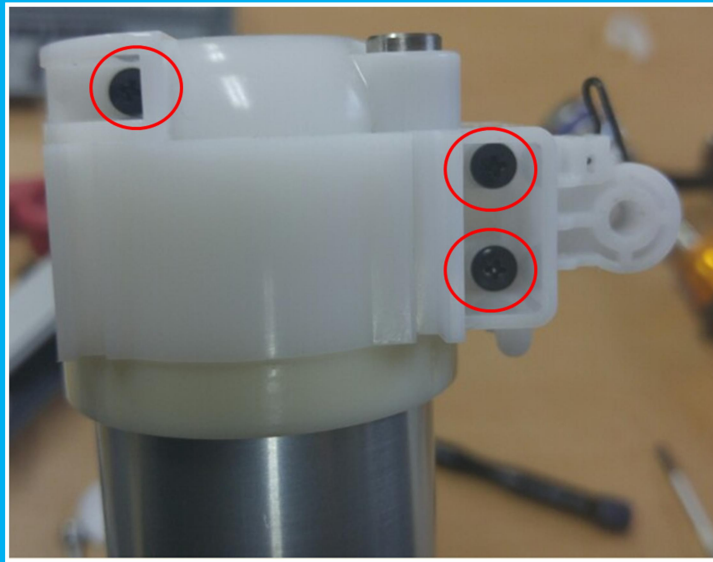


Picture 2-11

11) After assemble all the parts, you will have arm swing module as shown in picture 2-11.

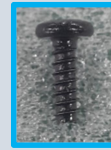
3) Assembling the BODY CASE LOW module

Picture	Instruction
 <p data-bbox="528 591 697 622">Picture 3-1</p>	<p data-bbox="1062 293 1487 389">1) Connect the Bar Lift(ref: HI-13-00635(Mi)) and Bushing Top(ref: HI-13-00628(Mi)).</p>
 <p data-bbox="534 1144 703 1176">Picture 3-2</p>	<p data-bbox="1062 663 1487 871">2) Connect the Ball Plunger(중하중) (ref: HI-13-00603) and Spring Link(ref: HI-13-00645(Mi)) to Stopper Front(ref: HI-13-00627(Mi)) as shown in picture 3-2.</p>
 <p data-bbox="528 1478 697 1509">Picture 3-3</p>	<p data-bbox="1062 1211 1487 1344">3) Apply the grease to Stopper Rear(ref: HI-13-00626(Mi)) and Stopper Front(ref: HI-13-00627(Mi)).</p>
 <p data-bbox="528 1973 697 2004">Picture 3-4</p>	<p data-bbox="1062 1547 1487 1711">4) Fix the Stopper Front(ref: HI-13-00626(Mi)) to edge part of Bar Lift(ref: HI-13-00635(Mi)) and then Insert Stopper Rear(ref: HI-13-00627(Mi))</p>

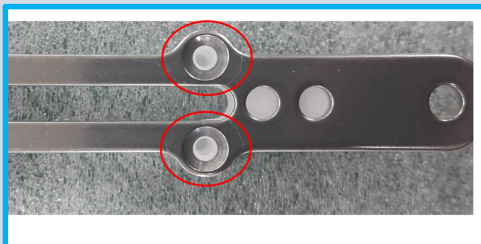


Picture 3-5

5) Tighten Tapping Screw M2.6X8L-PH to 3 screw hole in the Stopper Rear(ref: HI-13-00627(Mi)).



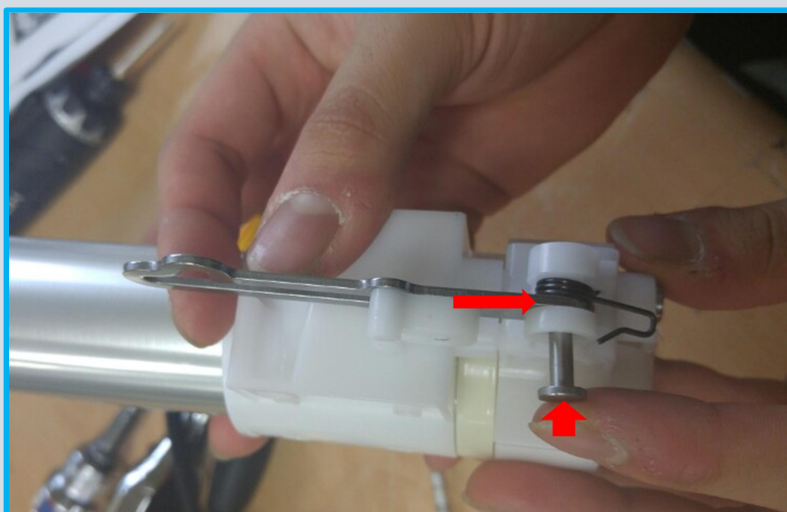
Tapping Screw M2.6X8L-PH



Picture 3-6

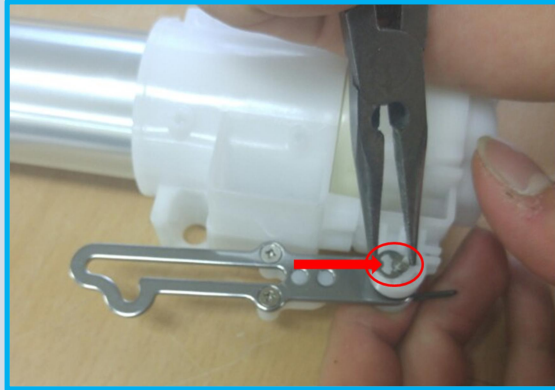
6) Fix the Link Lift(ref: HI-13-00643(Mi)) and Dummy Lift(ref: HI-13-00634(Mi)) using the Tapping Screw M2.6X8L-FH.

※ Grooved par of Link lift should be facing the upward as shown in picture 3-6.



Picture 3-7

7) Put the bottom edge part of Link Lift(ref: HI-13-00643(Mi)) which is connect to Dummy Lift(ref: HI-13-00634(Mi)) to spring between the stopper rear and stopper front and then put the shaft link(HI-13-00650(Mi)) to fix it.



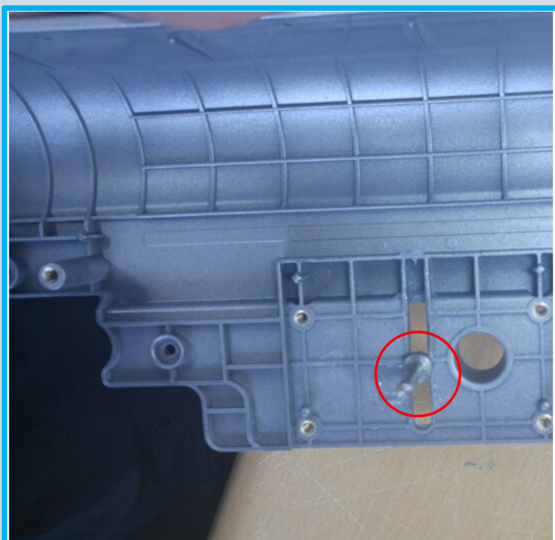
Picture 3-8

8) Put the E-ring to upper part of fixed Link Lift(ref: HI-13-00643(Mi)) and using the long nose fix it.



Picture 3-9

9) Apply the grease to square hole in the Cover Main(ref: HI-13-00609(Mi))



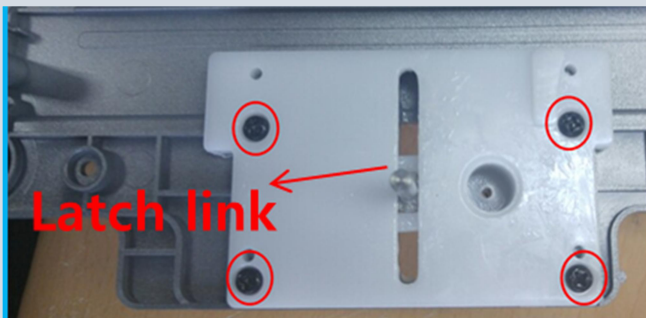
Picture 3-10

10) As shown in the picture 3-10, connect Shaft Main(ref: HI-13-00651(Mi)) to Cover Main(ref: HI-13-00609(Mi)).



Picture 3-11

11) Connect Latch Link(ref: HI-13-00630(Mi)) to Shaft Main(ref: HI-13-00651(Mi)) putting it hole of cover main as shown in the picture 3-11.



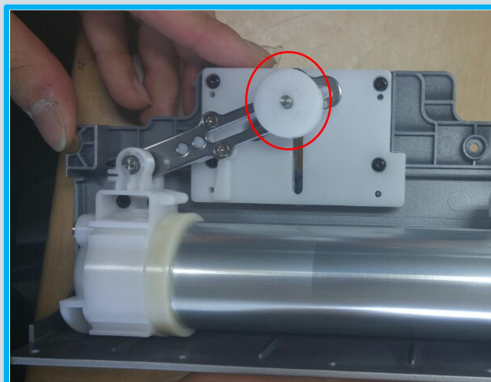
Picture 3-12

12) Connect the bracket link to latch link and the tighten it using the Machine Screw M3X8L-PH (Black).



Picture 3-13

13) Put the Link Lift(HI-13-00643(Mi)) to latch link as shown in picture 3-13.



Picture 3-14

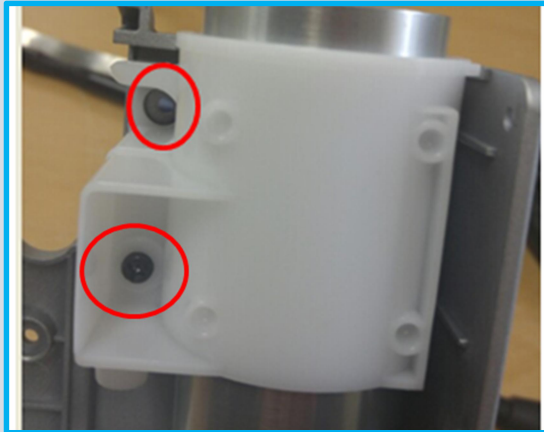
14) Put the Bushing Link(ref: HI-13-00633(Mi)) to latch link as shown in picture 3-14.





Picture 3-15

15) Fix the Bushing Link(ref: HI-13-00633(Mi)) using the e-ring.



Picture 3-16

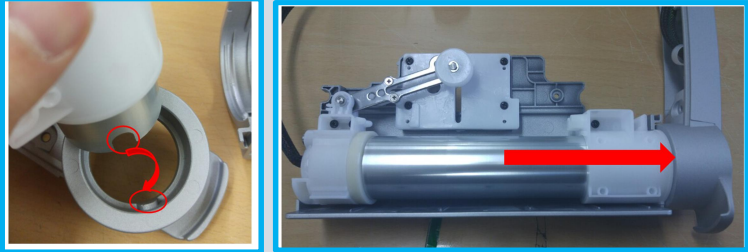
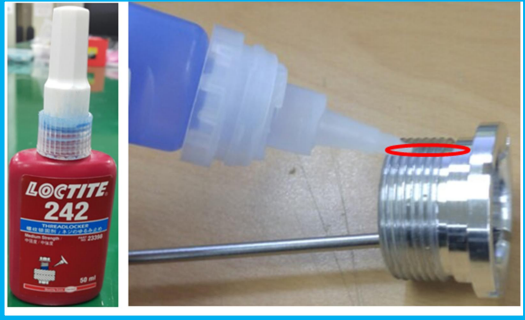
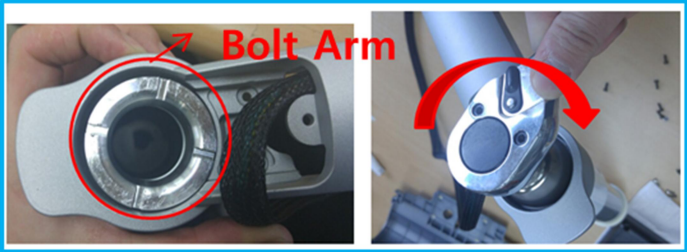

16) As shown in picture 3-16, fix the Cover Main(ref: HI-13-00609(Mi))과 Bushing Top(ref: HI-13-00628(Mi)). After the, tighten the Machine Screw M3X8L-PH(Silver) to only the hole in the bottom.

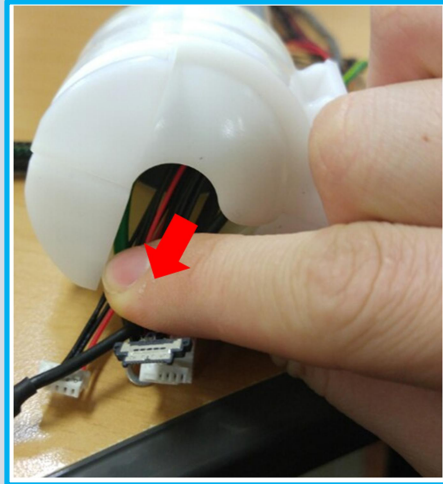


Picture 3-17

17) After assemble all the parts, you will have body case low module as shown in picture 3-14.

4) Assembling the Body Arm Module

Picture	Instruction
 <p data-bbox="528 651 699 685">Picture 4-1</p>	<p data-bbox="1062 356 1489 454">2) Connect the top part of Low Body Case Module to bottom part of swing arm module.</p> <p data-bbox="1062 488 1489 562">※ Connect swing arm to fit the pipe bar hole.</p>
 <p data-bbox="528 1106 699 1140">Picture 4-2</p>	<p data-bbox="1062 721 1489 853">1) Apply the Loctite to bolt arm(ref: HI-13-00648(Mi)) to red circled par as shown in the picture 4-2 moderately.</p>
 <p data-bbox="528 1494 699 1527">Picture 4-3</p>	<p data-bbox="1062 1176 1489 1308">3) Put the Bolt Arm(ref: HI-13-00648(Mi)) to bottom of Swing Arm Module and tighten it using the wrench.</p>
 <p data-bbox="528 1935 699 1968">Picture 4-4</p>	<p data-bbox="1062 1568 1489 1632">4) Put the net cable to inside of Bolt Arm.</p>



Picture 4-5

5) Pull and pass the cable of 3) to the stopper rear and front are connected part of low body module.



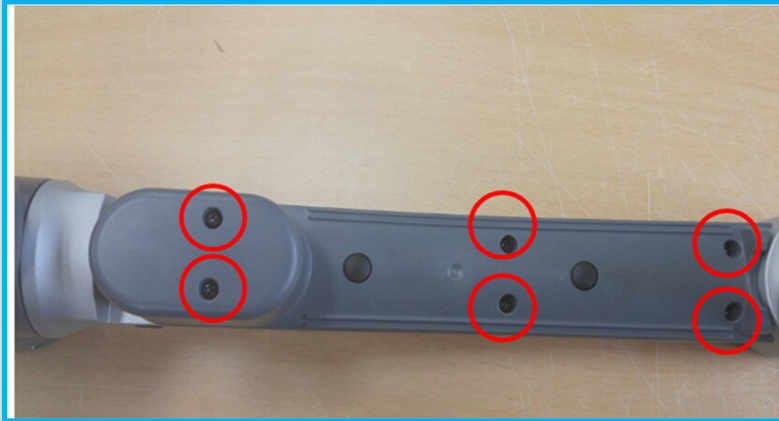
Picture 4-6

6) Connect the Cap Swing(ref: HI-13-00624(Mi)) to bottom of Swing Arm(ref: HI-13-00624(Mi)).



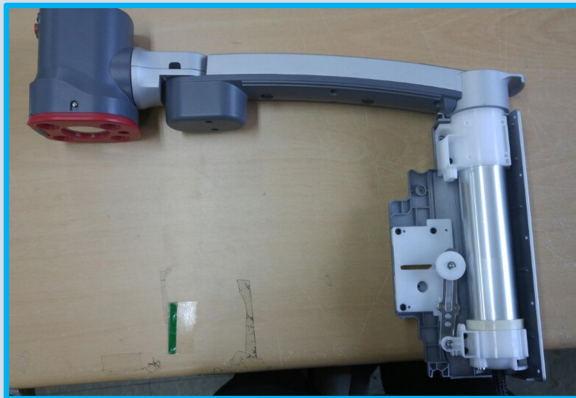
Picture 4-7

7) Attach the Cover Swing(ref: HI-13-00624(Mi)) to Swing Module.



Picture 4-8

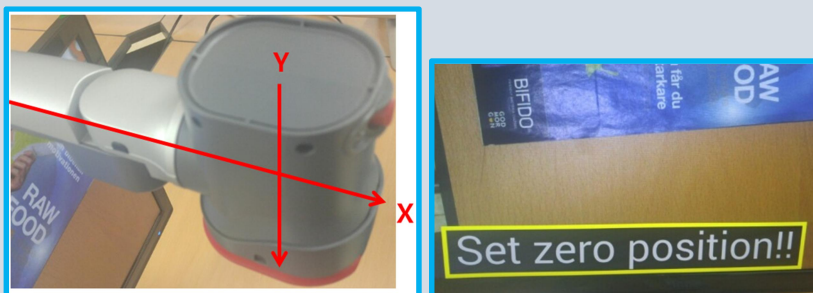
8) Tighten the Machine Screw M3X8L-PH to 6 hole in the Cover Swing(ref: HI-13-00624(Mi)).



Picture 4-9

9) After assemble all the parts, you will have body arm module as shown in picture 4-9.

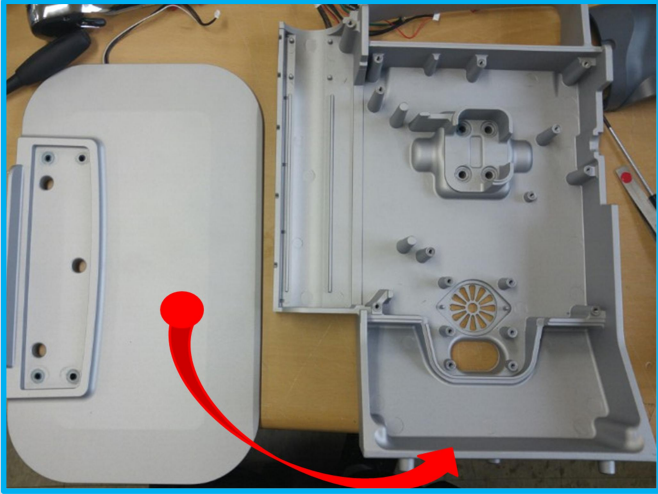
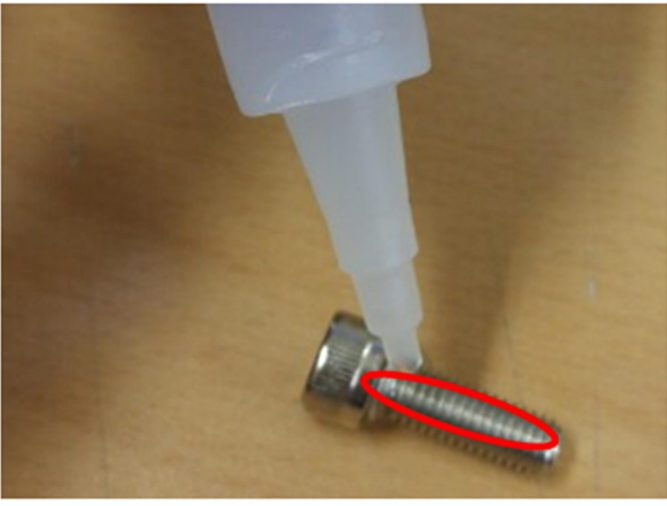
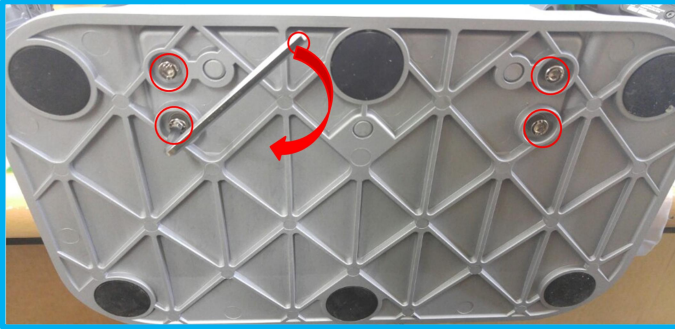

※ **After reassemble the Camera Module, set zero position should be setting up.**



Picture 4-10

10) To set zero position, after turn on the GoVision, place the camera and camera arm vertically and horizontally both X and Y as shown in the picture 4-10. After then press the color mode and marker button more then 5 seconds. Then, you will see the 'Set Zero Position' in the bottom of the screen of GoVision.

5) Assembling Main Bottom Module


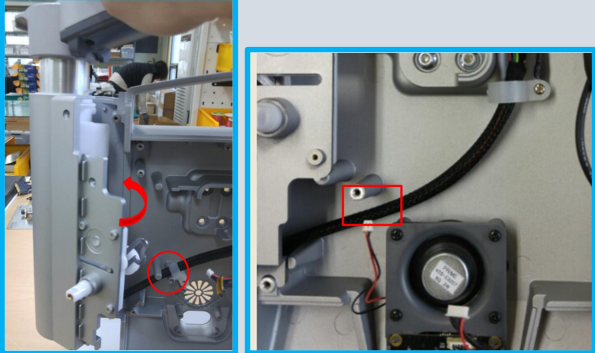
Picture	Instruction
 <p data-bbox="547 810 715 842">Picture 5-1</p>	<p data-bbox="1098 230 1442 327">1) Fix the Stand(ref: HI-13-00605) to bottom of Frame Main(ref: HI-13-00604).</p>
 <p data-bbox="547 1426 715 1458">Picture 5-2</p>	<p data-bbox="1098 884 1474 943">2) Apply the Loctite to the one side of wrench bolt M8X15L.</p>
 <p data-bbox="547 1915 715 1946">Picture 5-3</p>	<p data-bbox="1098 1498 1481 1630">3) Fix the wrench bolt M8X15L to 4 holes below the Stand(ref: HI-13-00605) using the six-angle wrench.</p> <div data-bbox="1225 1657 1370 1843">  </div>

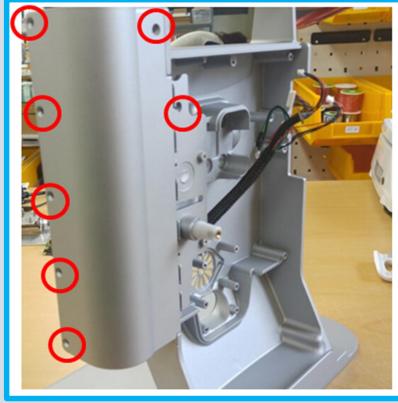


Picture 5-4

4) Assembled Main Bottom Module is as shown in picture 5-4.

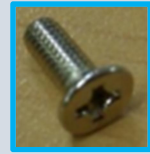
6) Assembling Main Body Module

Picture	Instruction
 <p>Picture 6-1</p>	<p>1) Apply the grease to the left par of Frame Main(ref: HI-13-00604).</p>
 <p>Picture 6-2</p>	<p>2) Assemble the Arm Body Module to Main Bottom Module as shown in the picture 6-2.</p> <p>※ Passing the net cable from the arm body module to the stand of main bottom module.</p>

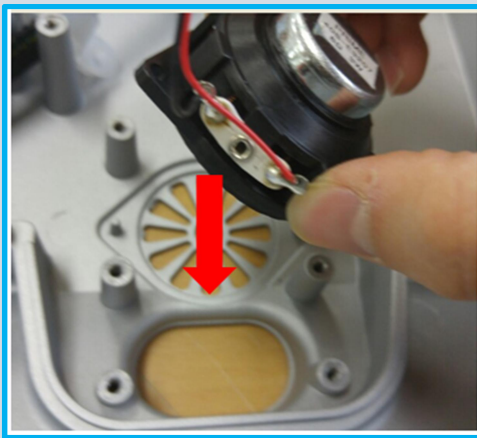


Picture 6-3

3) Connect and fix the frame main and arm with 7 Machine Screws M3X8L-FH.

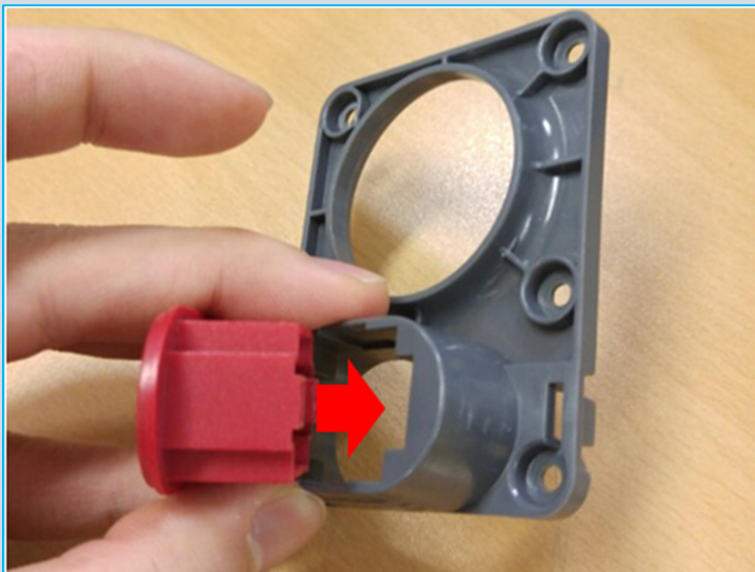


Machine Screw M3X8L-FH



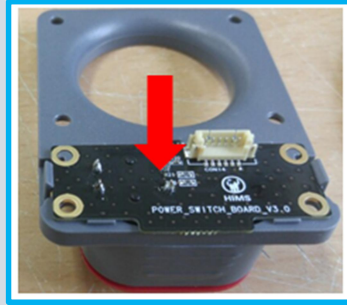
Picture 6-4

4) Connect the speaker unit to center of frame main (ref: HI-13-00604) to forward bottom left part of speaker facing the hole.



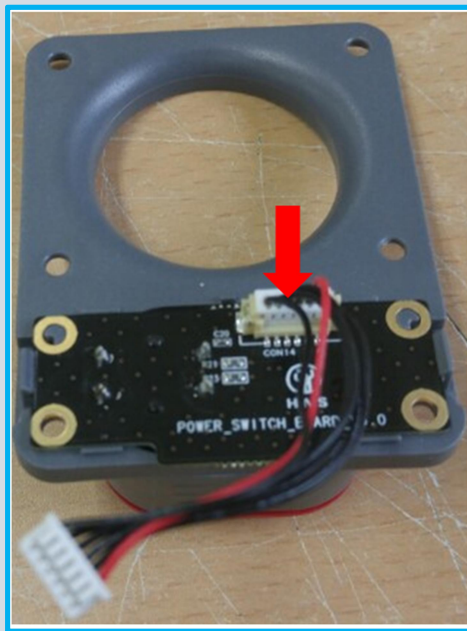
Picture 6-5

5) Attach the Bracket Power(ref: HI-13-00622(Mi)) and Button Power.



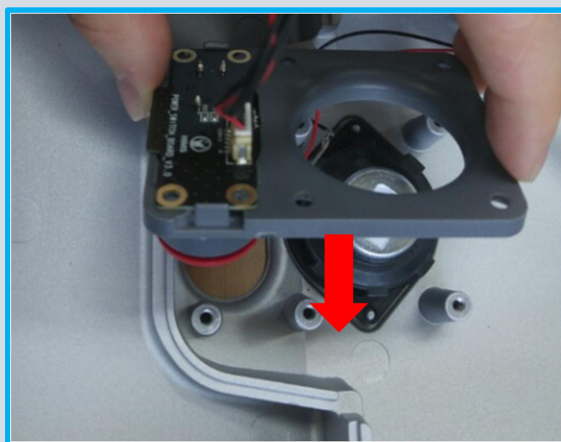
Picture 6-6

6) Connect the Power Switch Board(ref: HK-03-00117) to back side of Bracket Power(ref: HI-13-00622(Mi)).



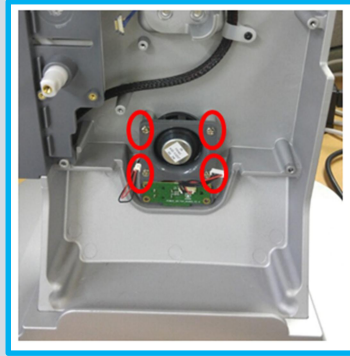
Picture 6-7

7) Connect the Power Switch Cable(ref: HI-05-00095) to Power Switch Board(ref: HK-03-00117).



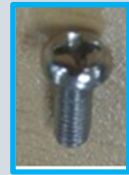
Picture 6-8

8) Connect the assembled Bracket Power(ref: HI-13-00622(Mi)) to Speaker(ref: HI-18-00575).

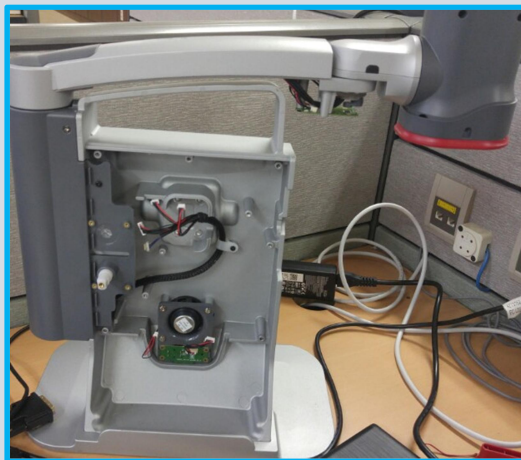


Picture 6-9

9) Connect the Machine Screw M3X8L-PH(Silver) to 4 holes in the Bracket Power(ref: HI-13-00622(Mi)).



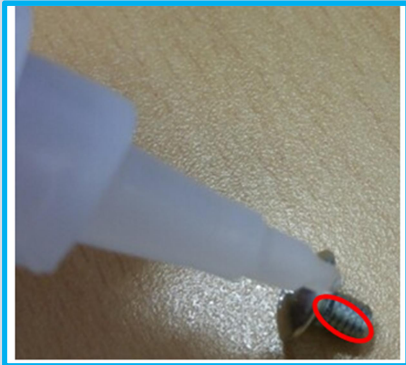
Machine Screw M3X8L-PH(Silver)

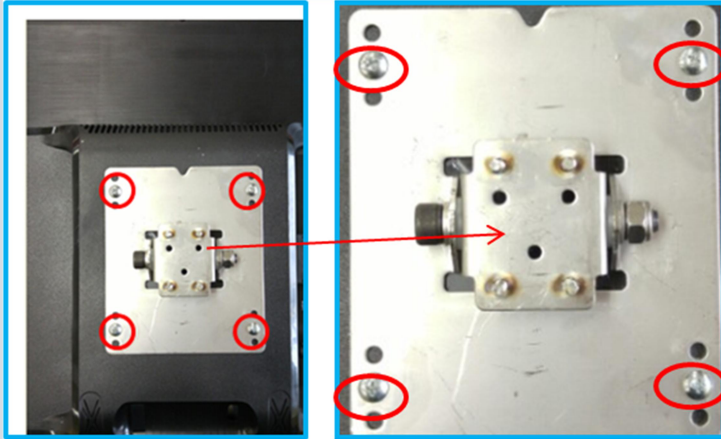


Picture 6-10

10) Assembled Main Body Module is as shown in picture 6-10.

7) Assembling Monitor Module

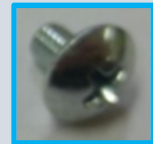
Picture	Instruction
 <p>Picture 7-1</p>	<p>1) Apply the Loctite to Machine Screw M4X6L-TH.</p>



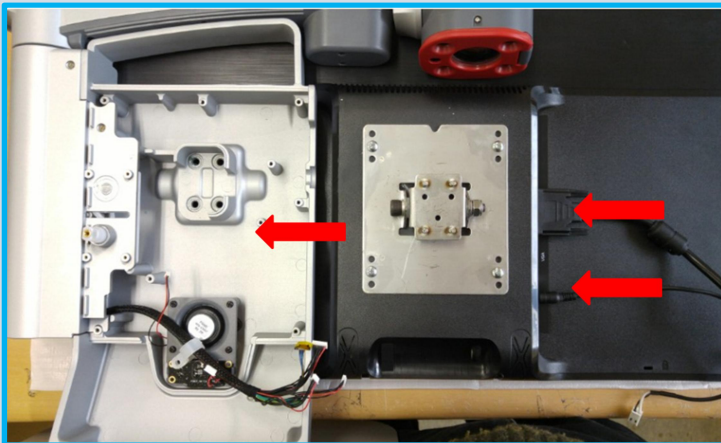
Picture 7-2

2) Attach the Machine Screw M4X6L-TH to screw hole of Tilt Base.

※ **Curved par of Tilt Base should be facing to upward and screw should be place to the second hole.**



Machine Screw M4X6L-TH



Picture 7-3

3) Connect the DVI & DC Cable(ref: HI-05-00097) and then, assemble the tilt base to bottom of Frame Main(ref: HI-13-00604).



Picture 7-4

4) Apply the Loctite to Hexagonal Flange Nut.

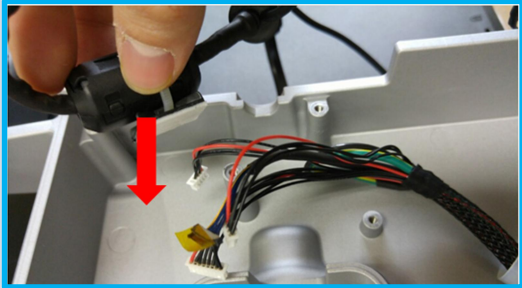
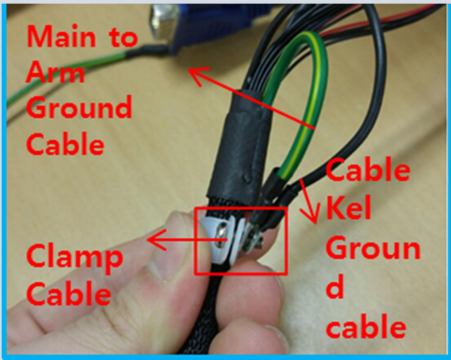


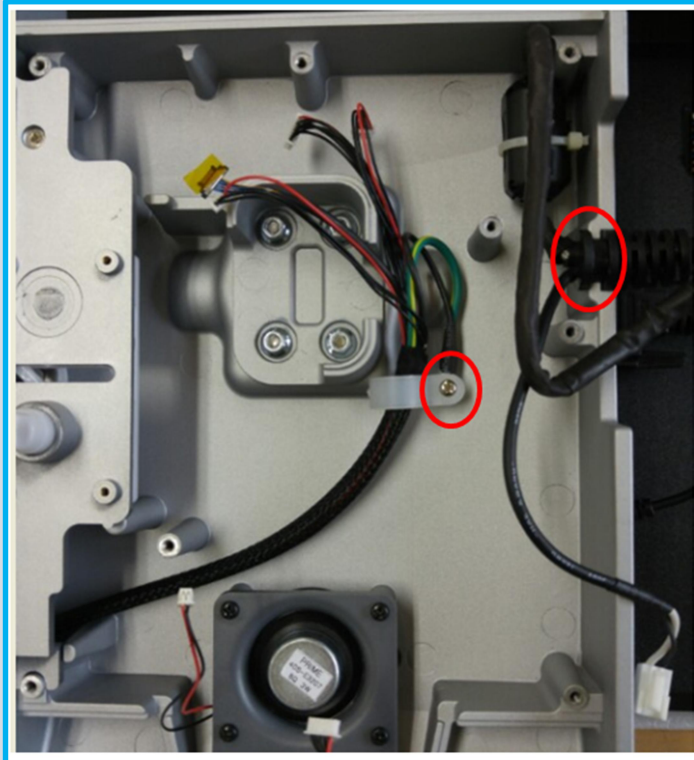
Picture 7-5

5) Put the monitor module to 4 holes in the center of frame main and then tighten the Hexagonal Flange Nut using the six-angle wrench.



1) Assembling Main PCB and Cable

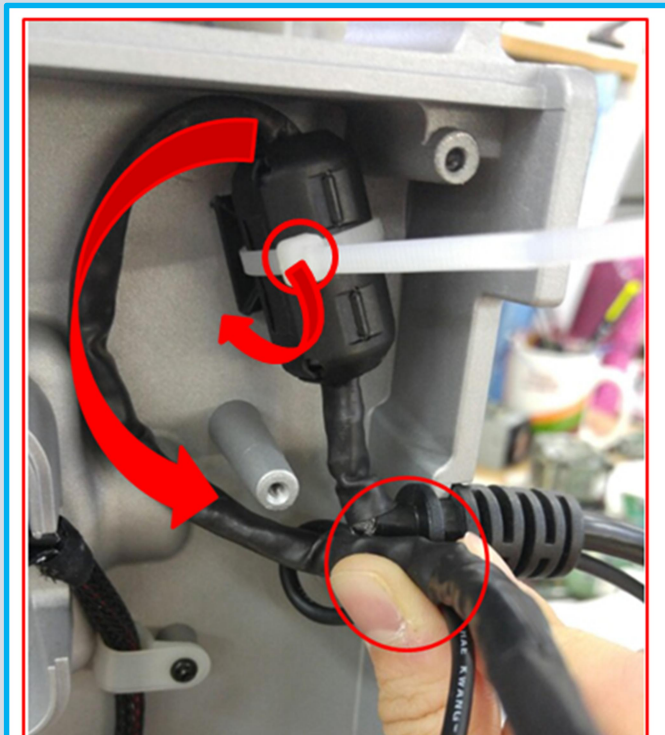
Picture	Instruction
 <p>Picture 8-1</p>	<p>1) Attach the Ferrite Core from DVI & DC Stopper to main to the right upper par of fram main.</p>
 <p>Picture 8-2</p>	<p>2) Bind the main to Arm Ground Cable from the back part of net cable and ground cable from the cable kel using the cable clamp and screw.</p>



Picture 8-3

3) As shown in the picture 8-3, fix the cable and cable clamp using the Machine Screw M3X8L-PH.

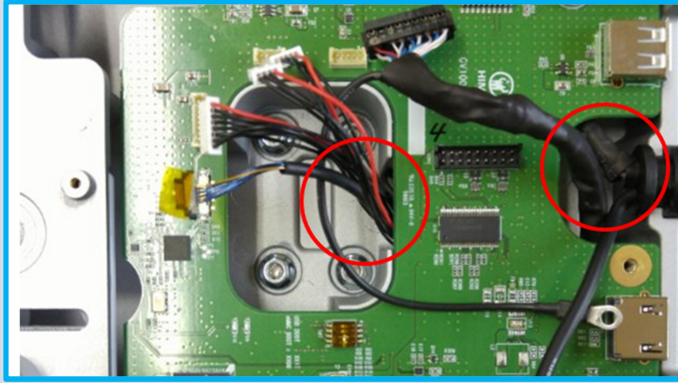
※ **Put the stopper of DVI & DC Cable to under the DC cable.**



Picture 8-4

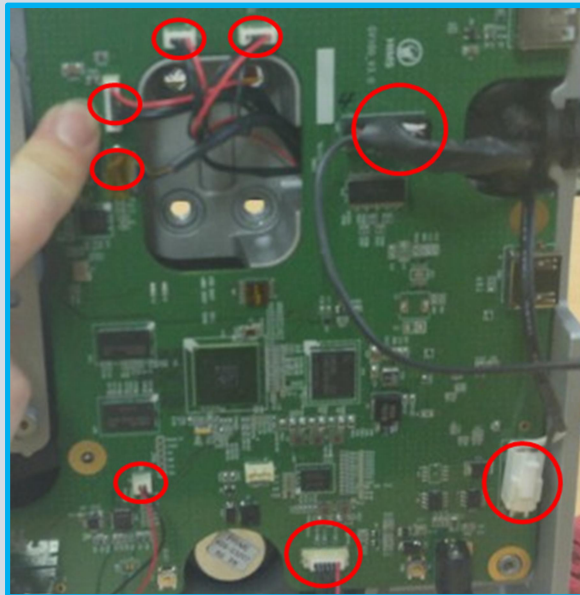
4) Make enough space to put the cable to right part of Main PCB as shown in the picture 8-4.

※ **To prevent screech on Main PCB due to sharp edge of cable tie, knot part of tie should be placed in the left and cut the cable tie closely.**



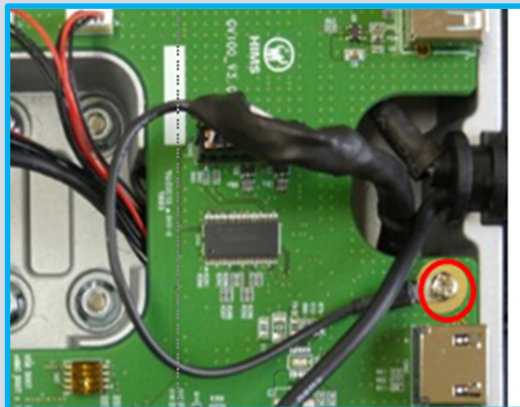
Picture 8-5

5) As shown in the picture 8-5, cables should be placed out of the holes after cover the Main PCB(ref: HK-03-00116).



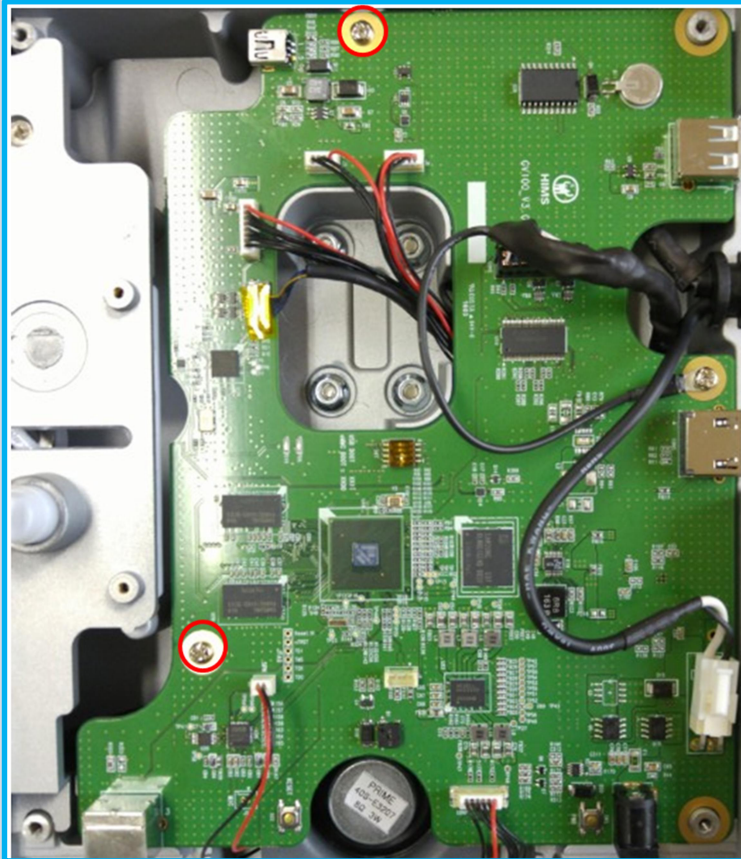
Picture 8-6

6) Connect each cable for 8 connector as shown in the picture 8-6.



Picture 8-7


7) As shown in the picture 8-7, connect ground cable from DVI cable to board using the M3X8L-PH(Silver) screw.



Picture 8-6

8) Connect 2 holes using Machine Screw M3X8L-PH(Silver).

9) Assembling Case

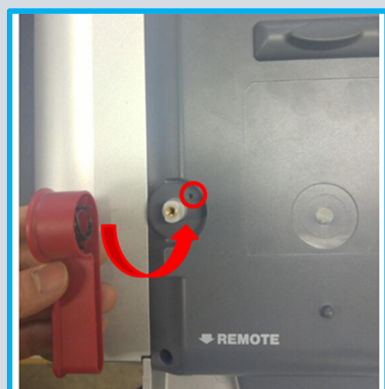
Picture	Instruction
	<p>1) Attach the Cover Rear(HI-13-00608(Mi)) to frame main.</p>

Picture 9-1



Picture 9-2

2) Attach the Handle Lever(ref: HI-13-00617(Mi)) to Spring self-return(ref: HI-13-00646(Mi)).



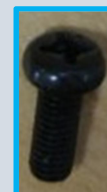
Picture 9-3

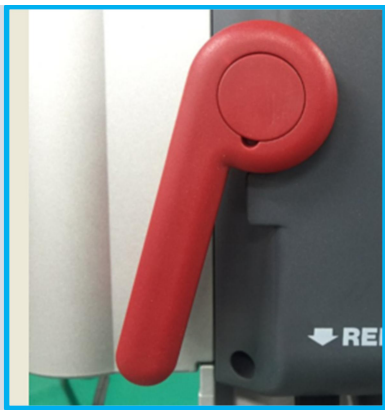
3) Attach the Handle Lever(ref: HI-13-00617(Mi)) which is assembled with Spring self-return(ref: HI-13-00646(Mi)) to Cover Rear(ref: HI-13-00608(Mi)) to fit into the hole.



Picture 9-4

4) Tighten 7 Machine Screws M3X8L-PH to the cover case.





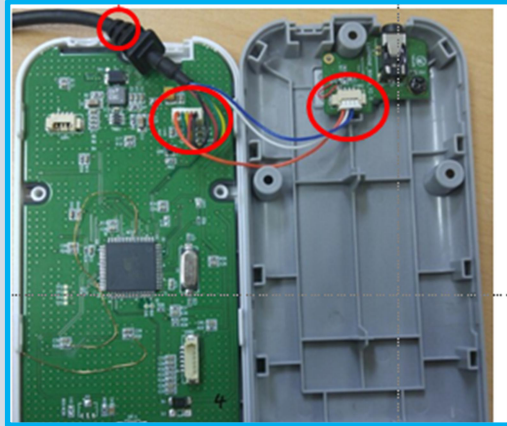
Picture 9-5

5) Fit the Cap Handle(ref: HI-13-00619(Mi)) to center and attach it.



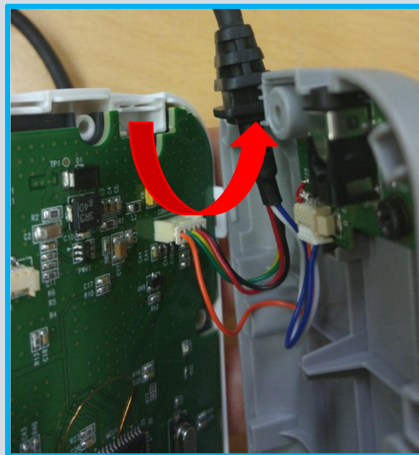
10) Controller Module

Picture	Instruction
 <p>Picture 10-1</p>	<p>1) Assemble the Rubber Keypad GV100(HI-13-00638(Mi)) to Upper Remocon GV100(HI-13-00636(Mi)).</p>
 <p>Picture 10-2</p>	<p>2) Connect Controller Board(ref: HK-03-00118) and Earphone Board(ref: HK-03-00118). After then, assemble the Tapping Screw M2.6X4L-PH to the Earphone Board.</p> 



Picture 10-3

4) Connect the 4Pin Plug from the Controller Cable to Earphone Board and then connect the 5Pin Plug to Controller Board.



Picture 10-4

5) Fit the upper remocon stopper hole, lower remocon hole and controller cable stopper correct and assemble them.



Picture 10-5

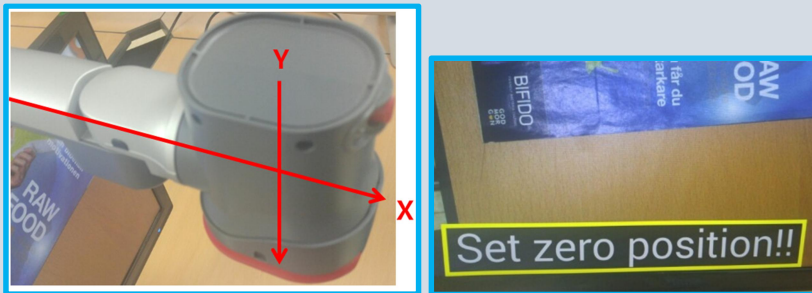
6) Assemble 5 Tapping Screw M2.6X6L-PH to holes of Lower remocon.





Picture 10-6

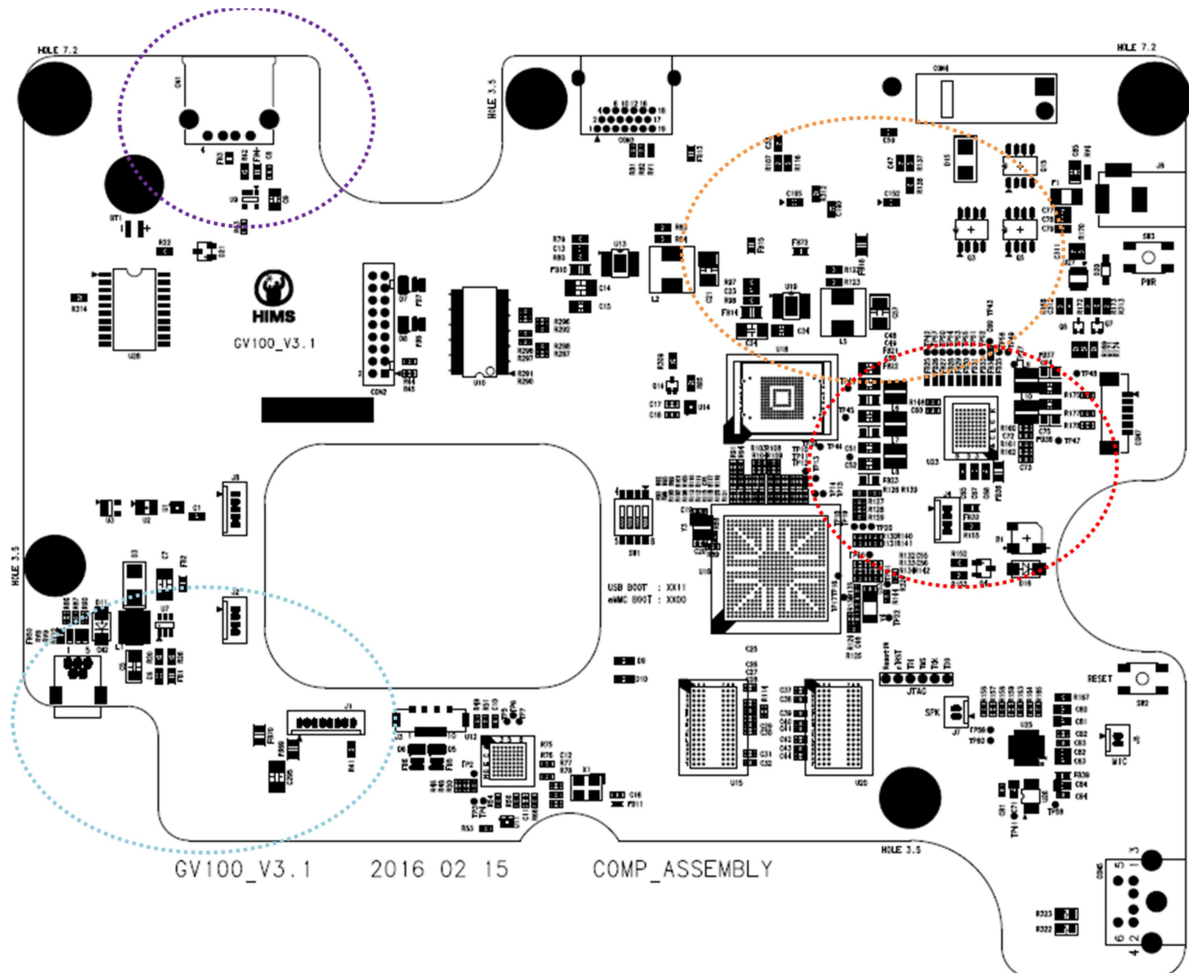
7) Assembled Controller Module is as shown in the picture 10-6.

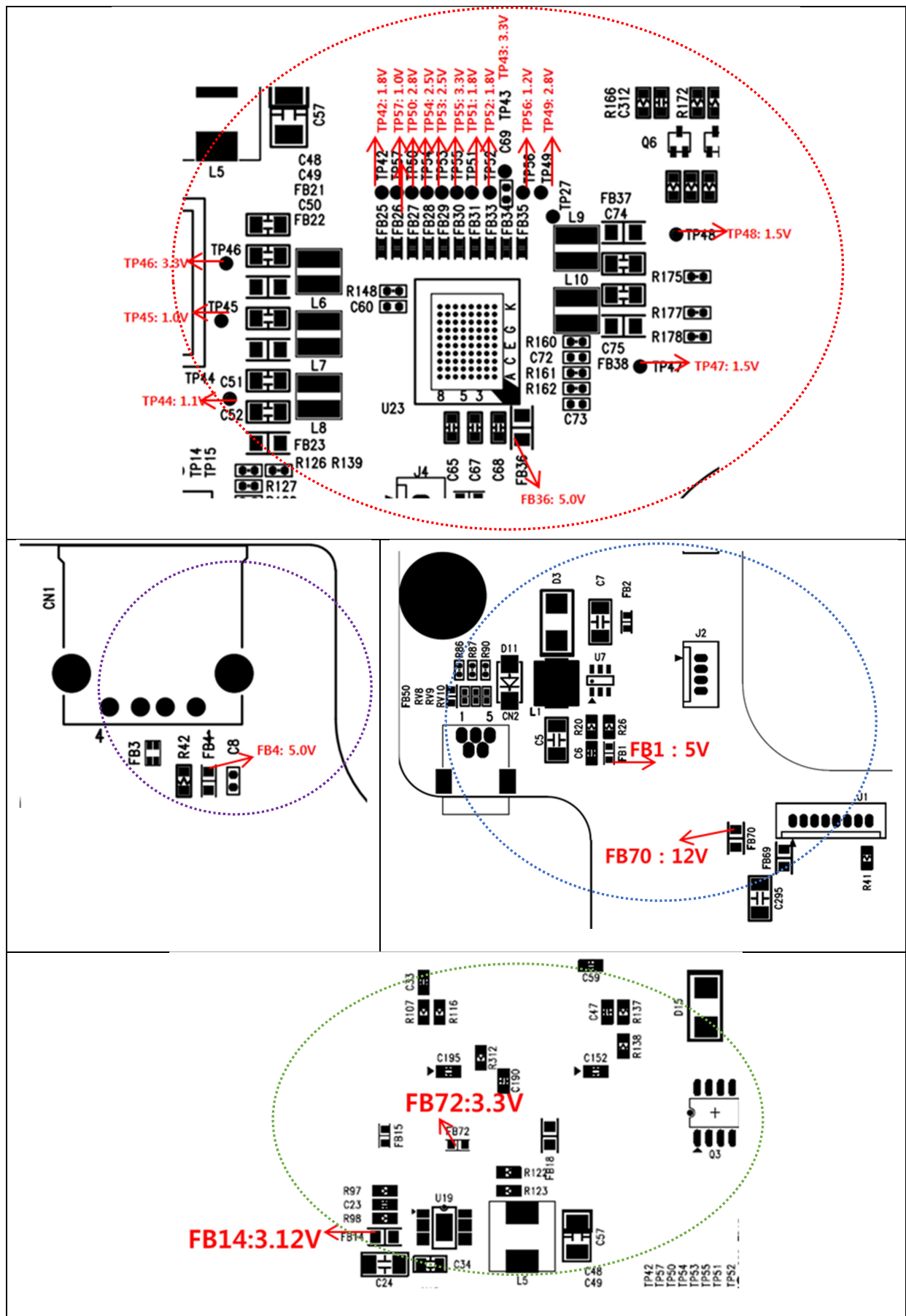


Picture 4-10

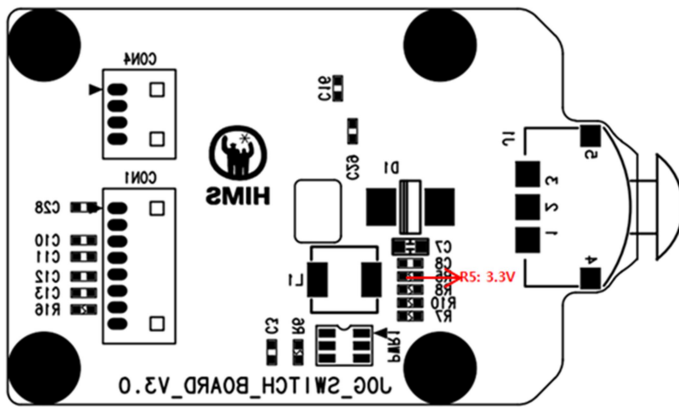
10) To set zero position, after turn on the GoVision, place the camera and camera arm vertically and horizontally both X and Y as shown in the picture 4-10. After then press the color mode and marker button more then 5 seconds. Then, you will see the 'Set Zero Position' in the bottom of the screen of GoVision.

※ **After reassemble the Camera Module, set zero position should be setting up.**

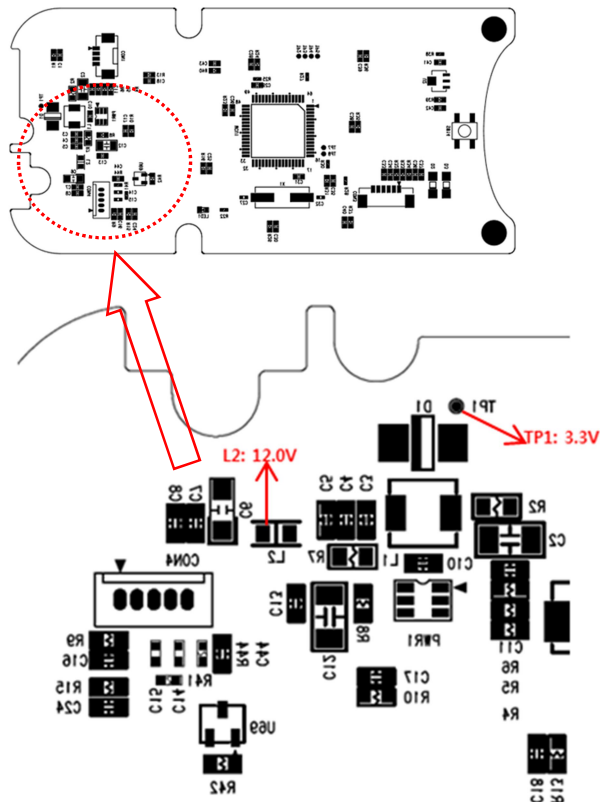




Jog Switch PCB Bottom side



Controller PCB Bottom side



B. How to repair the voltage failure

- The below table shows the normal voltage of each point. If it has any problem after checking each voltage, please follow the measure on the below table.

Item	Specification	Checking point	Cause	Measure
MAIN PCB				
1.1V point on PCB	1.05 ~ 1.25 V	TP44	PMIC or MAIN Board damaged	Replace MAIN Board with new one

1.0V point on PCB	0.95 ~ 1.15 V	TP45	PMIC or MAIN Board damaged	Replace MAIN Board with new one
3.3V point on PCB	3.25 ~ 3.35 V	TP46	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.5V point on PCB	1.45 ~ 1.55 V	TP47	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.5V point on PCB	1.45 ~ 1.65 V	TP48	PMIC or MAIN Board damaged	Replace MAIN Board with new one
3.3V point on PCB	3.25 ~ 3.35 V	TP55	PMIC or MAIN Board damaged	Replace MAIN Board with new one
2.5V point on PCB	2.45 ~ 2.55 V	TP54	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.8V point on PCB	1.75 ~ 1.85 V	TP51	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.8V point on PCB	1.75 ~ 1.85 V	TP52	PMIC or MAIN Board damaged	Replace MAIN Board with new one
2.5V point on PCB	2.45 ~ 2.65 V	TP53	PMIC or MAIN Board damaged	Replace MAIN Board with new one
3.3V point on PCB	3.25 ~ 3.35 V	TP43	PMIC or MAIN Board damaged	Replace MAIN Board with new one
2.8V point on PCB	2.75 ~ 2.85 V	TP50	PMIC or MAIN Board damaged	Replace MAIN Board with new one
2.8V point on PCB	2.75 ~ 2.85 V	TP49	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.2V point on PCB	1.15 ~ 1.25 V	TP56	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.8V point on PCB	1.75 ~ 1.85 V	TP42	PMIC or MAIN Board damaged	Replace MAIN Board with new one
1.0V point on PCB	0.95 ~ 1.05 V	TP57	PMIC or MAIN Board damaged	Replace MAIN Board with new one
12.0V point on PCB	11.5 ~ 12.5 V	FB24	MAIN Board damaged	Replace MAIN Board with new one
3.3V point on PCB	3.25 ~ 3.35 V	FB72	Power IC or MAIN Board damaged	Replace MAIN Board with new one
5.0V point on PCB	4.95 ~ 5.05 V	FB1	Power IC or MAIN Board damaged	Replace MAIN Board with new one
12.0V point on PCB	11.5 ~ 12.5 V	FB70	MAIN Board damaged	Replace MAIN Board with new one
5.0V point on PCB	4.95 ~ 5.05 V	FB4	Power IC or MAIN Board damaged	Replace MAIN Board with new one

JOG Switch PCB				
3.3V point on PCB	3.25 ~ 3.35 V	R5	Power IC or JOG Switch Board damaged	Replace JOG Switch Board with new one
Controller PCB				
12.0V point on PCB	11.50 ~ 12.50 V	L2	Controller Board or MAIN Board damaged	Replace Controller Board or MAIN Board with new one
3.3V point on PCB	3.25 ~ 3.35 V	TP1	POWER IC or Controller Board damaged	Replace Controller Board with new one

4. Diagnoses of Troubles

- If you are unable to repair the unit due to any reason, please do not disassemble the unit and contact to HIMS.
- [**CAUTION**] When you solder any part of the unit, please disconnect the AC-adapter from the unit.

Item	Sub Item	Error State	Cause	Measure
Button	Jog Switch Button	No action when pressing	Jog Switch is damaged	Disassemble the unit and replace the damaged Jog switch with new one by soldering it. It requires high soldering skill. If you cannot exchange the Tact switch by soldering, exchange the Jog Switch Board.
			Disconnection between the Jog Switch Board and the Main Board	Connect the Jog Switch Board and the Main Board.
			Main-Connection Board Cable is damaged	Disassemble the unit and replace the damaged Main-Connection Board Cable with new one.
		Key knob is loose	Inside of the knob is broken	Disassemble the unit and exchange the corresponding key knob button with new one.
		Angle Sensor Board or Main Board or neodymium Magnet is Replaced.		Have to set Zero Position.
	Power button	No action when pressing	Tact switch is damaged	Disassemble the unit and replace the damaged Tact switch with new one by soldering it. It requires high soldering skill. If you cannot exchange the Tact switch by soldering, exchange the Power Switch board.
			Disconnection between the Power Switch Board and the Main Board	Connect the Power Switch Board and the Main Board.
		No PC/CCTV action	HDMI Port is damaged	Replace the Main Board with new one.
			HDMI Cable is not connected to the GV100	Connect the HDMI Cable
		No beep	Buzzer is damaged	Disassemble the unit and replace the damaged Buzzer with new one by soldering it. It requires high soldering skill. If you cannot exchange the Buzzer by soldering, exchange the Main Board.
			Main board is damaged	Replace the Main board with new one.
		Angle Sensor Board or Main Board or neodymium Magnet is Replaced.		Have to set Zero Position.

Display	CCTV mode	If you see only a text message	Camera is damaged	Replace the Camera with new one.
			Cable kel is damaged	Replace the Cable kel with new one.
			Cable kel is not connected to the Main board or the Camera	Connect the Cable kel.
		No any image	Main Board is damaged	Replace the Main board with new one.
			DVI&DC Cable is damaged	Replace the DVI&DC Cable with new one.
			Monitor is damaged	Replace the Monitor with new one.
		No display change action when ARM and Camera moving	ND 6mm Magnet is damaged	Replace the ND 6mm Magnet with new one.
			Disconnection between the X-axis Angle Board and the Main Board	Connect the X-axis Angle Board and the Main Board.
			Disconnection between the X-axis Angle Board and the Y-axis Angle Board	Connect the X-axis Angle Board and the Y-axis Angle Board.
			X&Y-axis Angle Board is damaged	Replace the X&Y-axis Angle Board with new one.
			Angle Sensor Cable 1&2 are damaged	Replace the Angle Sensor Cable 1&2 with new one.
			Angle Sensor Board or Main Board or neodymium Magnet is Replaced.	Have to set Zero Position.
	PC mode	No White LED ON	White LED is damaged	Disassemble the unit and replace the damaged White LED with new one by soldering it. It requires high soldering skill. If you cannot exchange the White LED by soldering, exchange the Power Switch Board.
	Light	1. If there is no display change according to the environmental brightness change 2. No Camera light	Light board is damaged	Replace the Light board with new one.
			Connection Light Cable or Connection Camera Light Cable is damaged	Replace the Connection Light Cable or the Connection Camera Light Cable with new one.
Audio	Speaker	No Speaker output	Speaker is damaged	Replace the Speaker with new one.
			Main Board is damaged	Replace the Main board with new one.
			Angle Sensor Board or Main Board or neodymium Magnet is Replaced.	Have to set Zero Position.
	Earphone	No Earphone output	Earphone port is damaged	Disassemble the unit and replace the damaged Earphone port with new one by soldering it. It requires high soldering skill. If you cannot exchange the

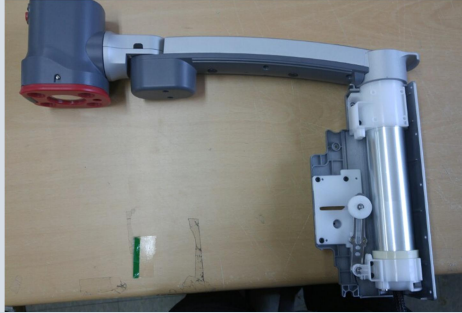



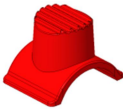
				Earphone port by soldering, exchange the Earphone Board.
			Main Board is damaged	Replace the Main board with new one.
			Angle Sensor Board or Main Board or neodymium Magnet is Replaced.	Have to set Zero Position.
USB	Action	No action when USB is connected	Main Board is damaged	Replace the Main board with new one.
			Angle Sensor Board or Main Board is Replaced.	Have to set Zero Position.
System	Bootting	System Boot happen with Beep sound Repeatedly	Main Board is damaged	Replace the Main board with new one.
			Angle Sensor Board or Main Board or neodymium Magnet is Replaced.	Have to set Zero Position.
Controller	Action	No action when pressing	Disconnection between the Controller Board and the Main Angle Board	Connect the Controller Board and the Main Board.
			Controller Board or Main Board is damaged	Replace the Controller Board and Main Board with new one.
			Controller Cable(MIRIM-JAWON-GV100) is damaged	Replace the Controller Cable(MIRIM-JAWON-GV100) with new one.
			Angle Sensor Board or Main Board or neodymium Magnet is Replaced.	Have to set Zero Position.

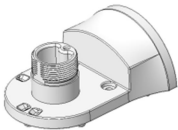
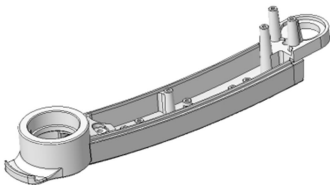


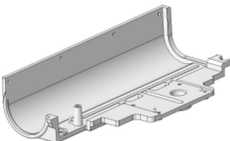
5. Screw

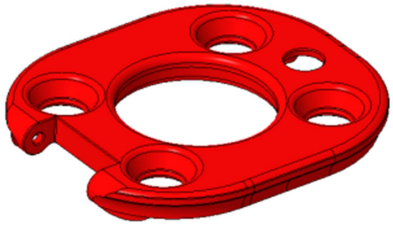
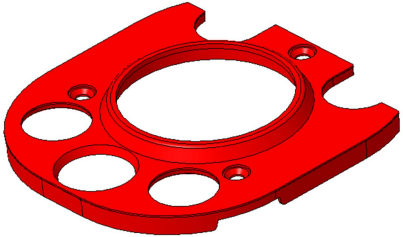

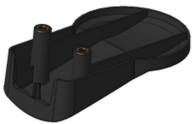
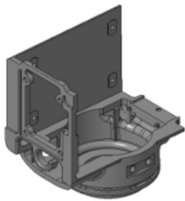
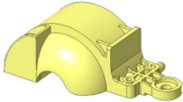
No.	Part name	specification	QTY	Screw picture	Position
1	Wrench Bolt	M8X15L	4		Stand
2	Machine Screw (Black)	M3X8L-PH	29		Cover Rear, Handle Lever, Power/Speaker Board module, Cover Swing, Bracket Magnet
3	Machine Screw (Silver)	M3X8L-PH	5		Main PCB, Lower Swivel, Arm Module
4	플랜지볼이 NUT	M4	4		Monitor Module
5	Machine Screw	M3X8L-FH	7		Arm Module
6	Machine Screw	M4X6L-TH	4		Monitor Module
7	Machine Screw	M2.6X5L-FH	5		Light Module

8	Tapping Screw	M2.6X8L-PH	5		low body case Moudle
9	Tapping Screw	M2.6X6L-PH	9		Camera Module, Controller Module
10	Tapping Screw	M2.6X4L-PH	10		Camera Module, Light Module, Earphone Board, Angle Sensor Board-2, Jog Switch Board
11	Tapping Screw	M2X5L-PH	4		Camera Module(base tilt)
12	Tapping Screw	M2.6X6L-FH	2		Dummy Lift

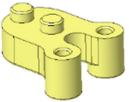




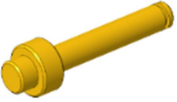

6. Part List

Part No	PART NAME	품번(Ref)	QTY	REMARK
GV100-A001	Arm Module	-	1	
GV100-001	Upper Camera	HI-13-00611(Mi)	1	
GV100-002	Lower Camera	HI-13-00612(Mi)	1	
GV100-003	Camera	HI-14-00010	1	
GV100-004	Knob Zoom	HI-13-00618(Mi)	1	



GV100-005	Upper Swivel	HI-13-00607	1	
GV100-006	Lower Swivel	HI-13-00608	1	
GV100-007	Arm Swing	HI-13-00606	1	
GV100-008	Cover Swing	HI-13-00610(Mi)	1	
GV100-009	Front Camera	HI-13-00613(Mi)	1	
GV100-010	Cover Main	HI-13-00609(Mi)	1	

GV100-011	Cover Flip	HI-13-00615(Mi)	1	
GV100-012	Holder Lens	HI-13-00617(Mi)	1	
GV100-013	Bracket Magnet	HI-13-00623(Mi)	2	
GV100-014	CAP Swing	HI-13-00624(Mi)	1	
GV100-015	Base Tilt	HI-13-00625(Mi)	1	
GV100-016	Stopper Rear	HI-13-00626(Mi)	1	

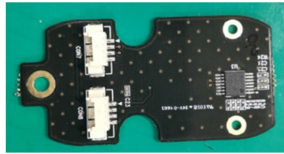
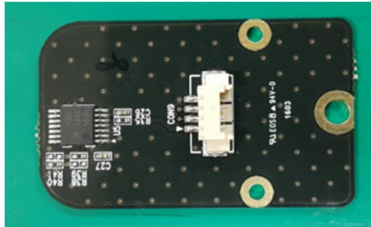
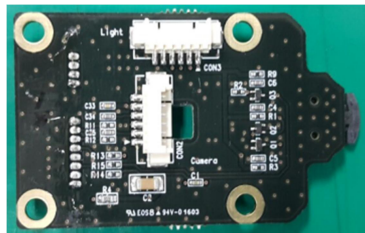
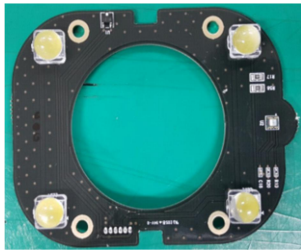


GV100-017	Stopper Front	HI-13-00627(Mi)	1	
GV100-018	Bushing Top	HI-13-00628(Mi)	1	
GV100-019	Bracket Link	HI-13-00629(Mi)	1	
GV100-021	Latch Link	HI-13-00630(Mi)	1	
GV100-022	Bushing ARM	HI-13-00631(Mi)	2	
GV100-023	Washer Plate	HI-13-00632(Mi)	2	
GV100-024	Bushing Link	HI-13-00633(Mi)	1	

GV100-025	Dummy Lift	HI-13-00634(Mi)	1	
GV100-026	Bar Lift	HI-13-00635(Mi)	1	
GV100-027	Bolt ARM	HI-13-00648(Mi)	1	
GV100-028	Nut ARM	HI-13-00649(Mi)	2	
GV100-029	Shaft Link	HI-13-00650(Mi)	1	
GV100-030	Shaft Main	HI-13-00651(Mi)	1	
GV100-031	Shaft Camera	HI-13-00652(Mi)	1	

GV100-032	Link Lift	HI-13-00643(Mi)	1	
GV100-033	Spring Link	HI-13-00645(Mi)	1	
GV100-034	Disk Spring	HI-13-00277	8	
GV100-035	Washer 3 Detect	HI-13-00282	2	
GV100-036	Bumper ARM	HI-13-00639(Mi)	2	
GV100-037	Shade Block	HI-13-00640(Mi)	1	
GV100-038	Stopper ARM	HI-13-00641(Mi)	2	




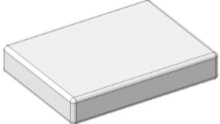


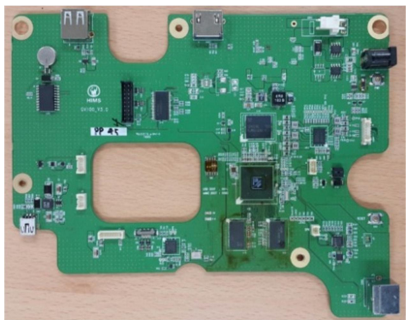
GV100-039	Folder-Hinge	HI-19-00126	1	
GV100-040	E-Ring	-	2	
GV100-041	Tape Steel	HI-19-00128	1	
GV100-042	Tape Connector	HI-19-00131	2	
GV100-043	Tape Magnet 1	HI-19-00129	2	
GV100-043	Close up Lens	HI-14-00016	1	
GV100-044	Round type neodymium magnet	HI-19-00030(Mi)	5	

GV100-045	Magnet	HI-19-00090(Mi)	2	
GV100-046	Ball Plunger(light load)	HI-13-00602	2	
GV100-047	Ball Plunger(Middle load)	HI-13-00603	1	
GV100-048	Cable Clamp	-	3	
GV100-050	INSULATOR-CAMERA-CASE	-	1	
GV100-051	INSULATOR-TILT-BASE	-	1	

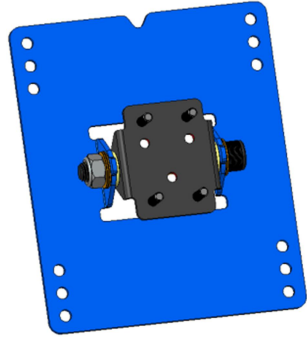



GV100-052	Angle Sensor Board-1	HK-03-00117	1	
GV100-053	Angle Sensor Board-2	HK-03-00117	1	
GV100-054	Jog Switch Board	HK-03-00117	1	
GV100-055	Camera Light board	HK-03-00117	1	
GV100-056	ARM TO ARM GND CABLE	HI-05-00100	1	
GV100-057	CAMERA TO ARM GND CABLE	HI-05-00101	1	




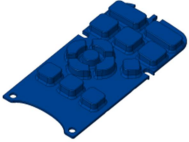

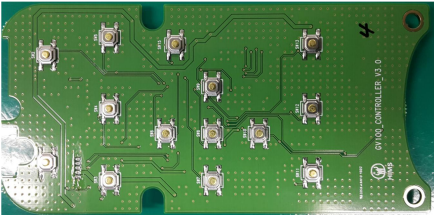

GV100-058	CONNECTION Camera Power cable	HI-05-00094	1	
GV100-059	CONNECTION Camera Light cable	HI-05-00093	1	
GV100-060	Net cable(Angle Sensor Cable-1+ CONNECTION Light cable + MAIN TO Connection cable + ARM TO MAIN GND CABLE + Cable KEL)	HI-05-00102	1	
GV100-061	Angle Sensor Cable- 2	HI-05-00091	1	

GV100-062	MAIN TO POWER Switch cable	HI-05-00095	1	
GV100-A002	Main Bottom Module		1	
GV100-063	Frame Main	HI-13-00604	1	
GV100-064	Stand	HI-13-00605	1	
GV100-065	Cover Rear + Hanger Rear	HI-13-00608(Mi) + HI-13-00609(Mi)	1	



GV100-066	Button Power	HI-13-00620(Mi)	1	
GV100-067	Power Lens	HI-13-00621(Mi)	1	
GV100-068	Bracket Power(HI-13-00622(Mi))	HI-13-00622(Mi)	1	
GV100-069	Magnet	HI-19-00121(Mi)	1	
GV100-070	Power on/off Board	HK-03-00117	1	
GV100-071	Speaker	HI-18-00575	1	
GV100-072	Main Board	HK-03-00116	1	

GV100-073	Foot Rubber	HI-19-00127		
GV100-074	Window Sensor	HI-13-00653(Mi)		
GV100-075	Cap Handle	HI-13-00619(Mi)	1	
GV100-076	Spring Self-Return	HI-13-00646(Mi)	1	
GV100-77	Handle Lever	HI-13-00617(Mi)	1	
GV100-A003	Monitor Module		1	

GV100-078	Assy-Hinge-Tilt	-	1	
GV100-079	DVI & DC CABLE	HI-05-00097	1	
GV100-080	GV100 24inch-Display	HI-15-00011	1	
GV100-A004	Controller Module		1	

GV100-081	Upper Remocon GV100	HI-13- 00636(Mi)	1	
GV100-082	Lower Remocon	HI-13- 00637(Mi)	1	
GV100-083	Plate Steel	HI-13- 00644(Mi)	1	
GV100-084	Rubber Keypad GV100	HI-13- 00638(Mi)	1	
GV100-085	Controller Cable	HI-05-00089	1	
GV100-086	Controller Board	HK-03- 00118	1	
GV100-087	Earphone Board	HK-03- 00117	1	

기타				
GV100-087	HDMI Cable	HI-05-00032	1	
GV100-088	HDMI to DVI Gender	HI-19-00051	1	
GV100-089	Earphone	HI-16-00024	1	
GV100-090	12V@3A Adapter	HI-16-00009	1	
GV100-091	Power cable - Korea	HI-05-00068	1	

GV100-093	Power Cable - Japan	HI-05-00084	1	
GV100-094	Power Cable - England	HI-05-00070	1	

7. Contact Information

Address	HIMS(JAWON MEDICAL CO., LTD) 174, Gajeong-ro, Yuseong-gu, Daejeon, KOREA, 305-350
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Homepage	http://www.jawonmedical.com/
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