

# ABB Dress Out Kit Instruction Manual



## WARNING

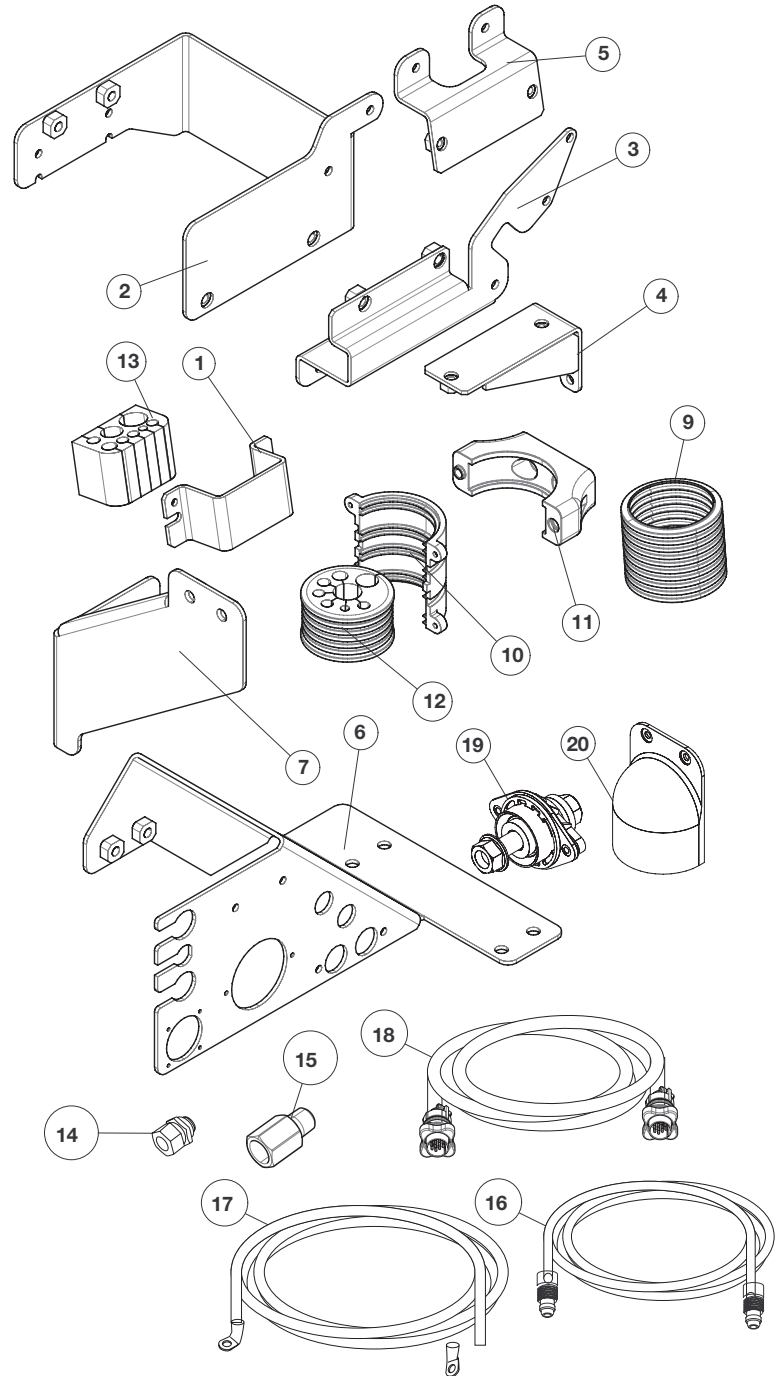


Turn off power to arm and feeder before installing dress out kit. Verify that power is not available to wirefeeder.  
Only qualified personnel should install Dress Out Kit.

Select your arm:

**K4253-IRB1520ID-B**

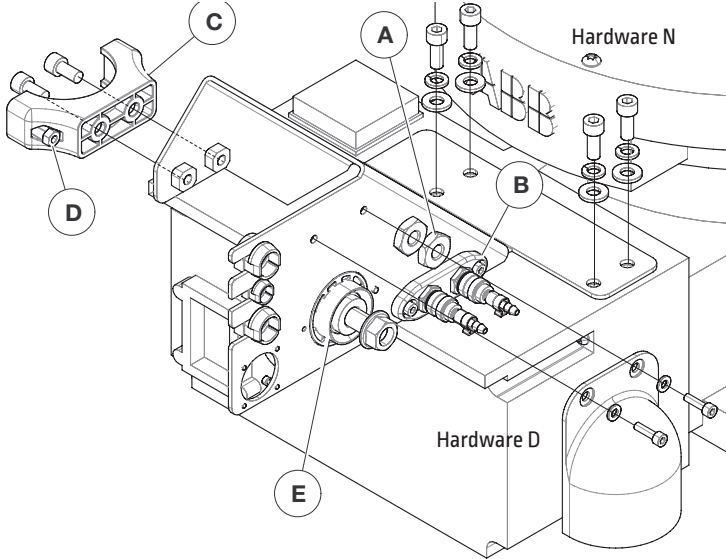
ITEM	Lincoln PN	DESCRIPTION	UNIT	QTY
1	M25455-1	Block, Cable Holder Bracket,Top	PC	3
2	M25455-2	ABB Feeder Bracket 4R100/220	PC	1
3	M25455-3	ABB Feeder support Bracket	PC	1
4	M25455-4	Cable Holder Bracket, Bottom A	PC	1
5	M25455-5	Cable Holder Bracket, Bottom B	PC	2
6	M25455-6	ABB Bulk Head Bracket B	PC	1
7	M25455-7	Clamp Bracket	PC	1
9	M25431-22	52mm Conduit, PARAB Nylon, 1M	M	1.05
10	S30266-24	Insert, Conduit Clamp	PC	4
11	S30266-27	Clamp, 52mm Conduit	PC	4
12	S30266-25	Rubber Holder, Axis 1	PC	2
13	S30266-26	Block, Cable Holder	PC	3
14	S30266-8	GAS FITTING	PC	2
15	S30266-16	FEMALE CONNECTOR	PC	2
16	S30266-29	GAS HOSE, 3.4M	PC	1
17	M25431-23	POWER CABLE WITH 60 DEGREE BEND, 3.8M	PC	1
18	M25431-21	CONTROL CABLE (ArcLink 14 pin), 3.3M	PC	1
19	S16656-5	OUTPUT STUDS	PC	1
20	M20007	OUTPUT STUDS COVER	PC	2
21	S30266-28	HARDWARE KIT	PC	1
22	IM10376	INSTRUCTION MENU	PC	1



## Step 1 -

### Assemble and install the base bulkhead.

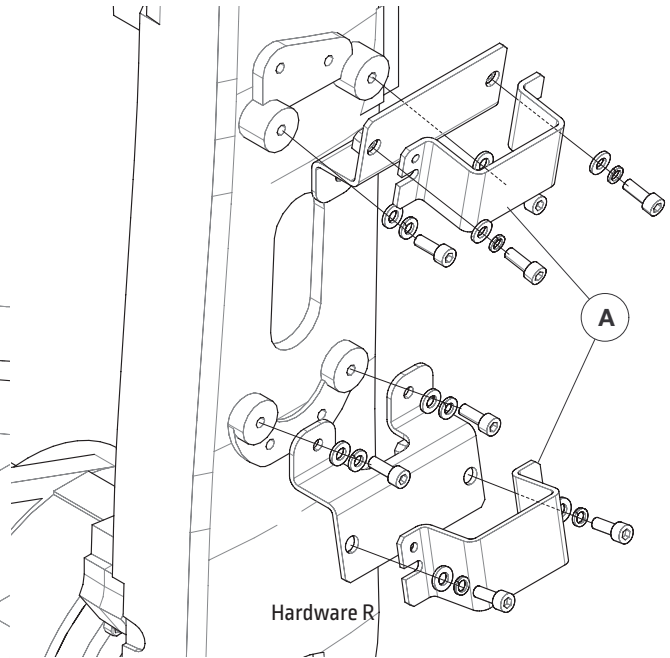
- Install the air and gas bulkheads, including the fittings.
- Install the water bulkhead. Note the direction of mounting.
- Install one part of the conduit clamp.
- Install two M6 nuts in the plastic conduit clamp to make it easier when finishing the clamp assembly later.
- Install the 3/0 lug and the rubber boots.



## Step 3 -

### Install both link 2 brackets

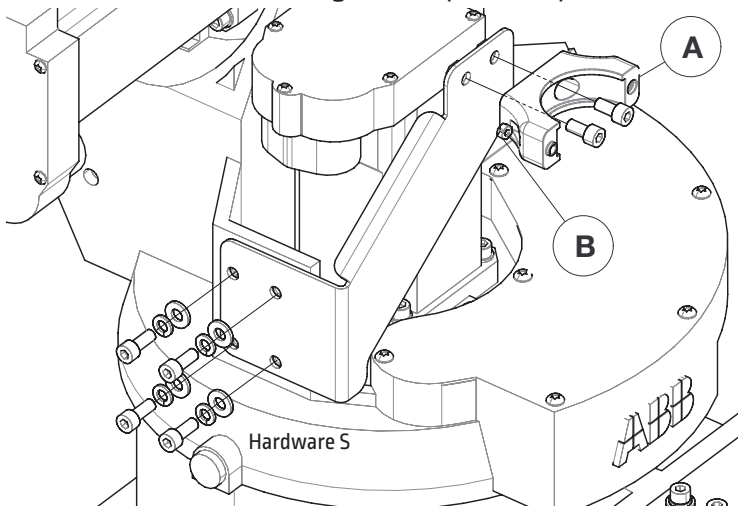
- Install the hardware for the rectangular clamp brackets. Leave the bolts loose.



## Step 2 -

### Assemble and install the axis 1 upper bracket.

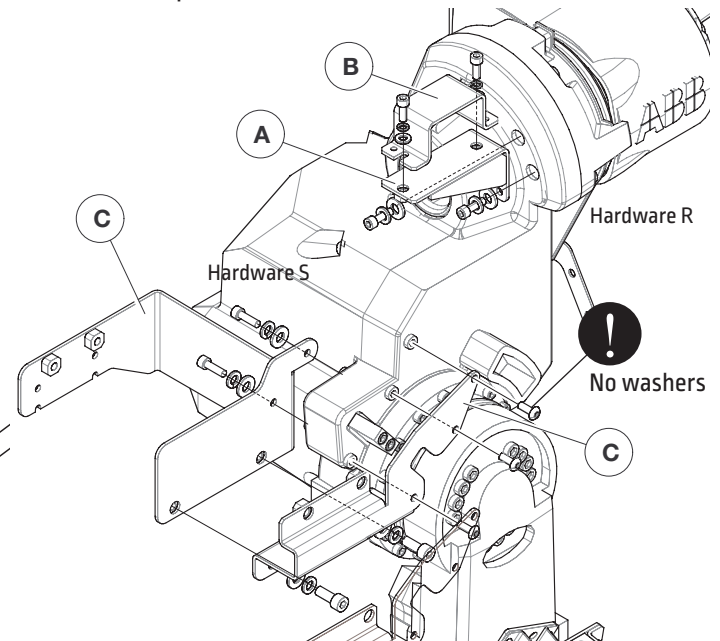
- Install one part of the conduit clamp.
- Install two M6 nuts in the plastic conduit clamp to make it easier when finishing the clamp assembly later.



## Step 4 -

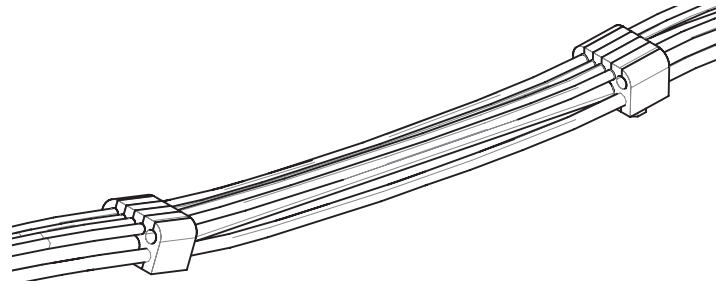
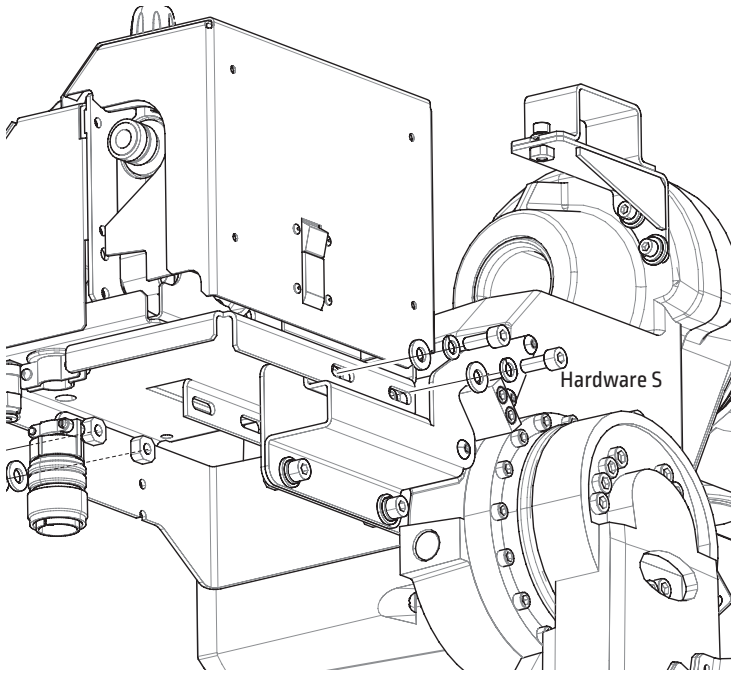
### Install all three brackets to axis 3.

- Install the strain relief bracket
- Install the hardware for the rectangular clamp bracket. Leave the bolts loose.
- Install the wire feeder brackets shown in the image. Note that this is attached without lock washers and washers. Do not tighten the bolts all the way to allow movement for fit up of other brackets.

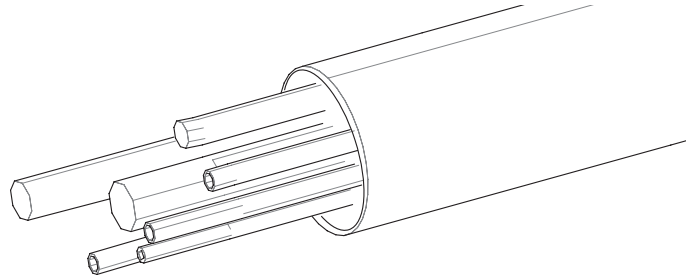


## Step 5 - Install the Wire Feeder.

- a. Tighten all bracket bolts down securing the wire feeder to the robot.



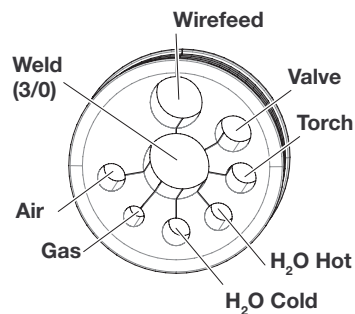
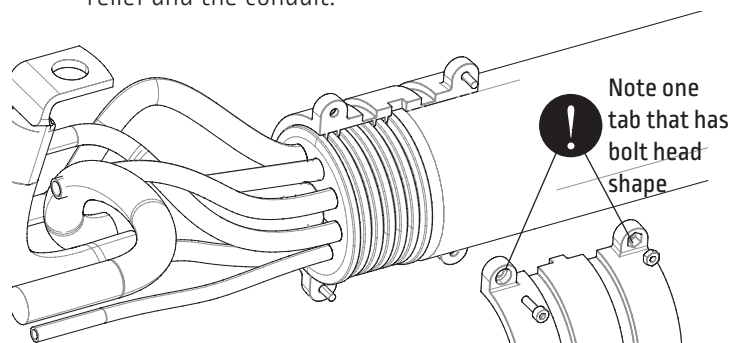
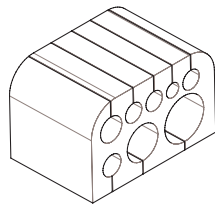
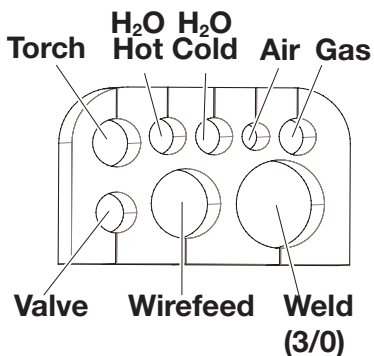
3. Slide the conduit over the cables on the conduit end. It helps to stagger the cables, push one a few inches through, then insert another one in, and keep doing that until all the cables come out the other end.



4. Put the two round conduit clamps on the cables. Push them as far towards the conduit as they will go.
  - Ensure that the rubber is facing the correct direction. Although this isn't as much of an issue with the round clamps, you will have an easier time dressing the robot out at the if the rubber clamps are facing the correct direction.
5. Use Hardware P - M3x10 and M3 nuts to secure the plastic clamps to the round rubber strain relief and the conduit on both ends.
  - The plastic clamps have a side for the M3 nut to fit into, make sure you put the M3 nut on the correct end or it will never tighten up.
  - The conduit and rubber strain relief should slide into the plastic clamp fairly easily, if it doesn't, make sure that the grooves are lined up with the rubber strain relief and the conduit.

## Step 6 CABLE BUNDLE INSTALLATION ON THE ROBOT

1. Lay all the cables out on the floor or on a table. Gather all necessary components (rubber clamps, conduit, and cables). **DO NOT CONTINUE UNTIL YOU HAVE ALL CABLES.**
  - Make sure the cables are all going the same direction [e.g. all the wire feeder connections at one end and all the base bulkheads at the other.
2. Insert the cables into the rectangular rubber clamps where the tape markers are. Don't do the circular ones until the following steps.
  - Make sure to check the model to know what direction the rubber clamps are supposed to be facing. If they are backwards, the robot will not dress out correctly.
  - Start with the weld cable for the rectangular clamps.
  - For the top row in the rectangular clamps, start in the middle, with water or gas. Do the torch cable and air last.



- It's okay that the cables aren't all the same length between the rubber clamps. This is intentional.

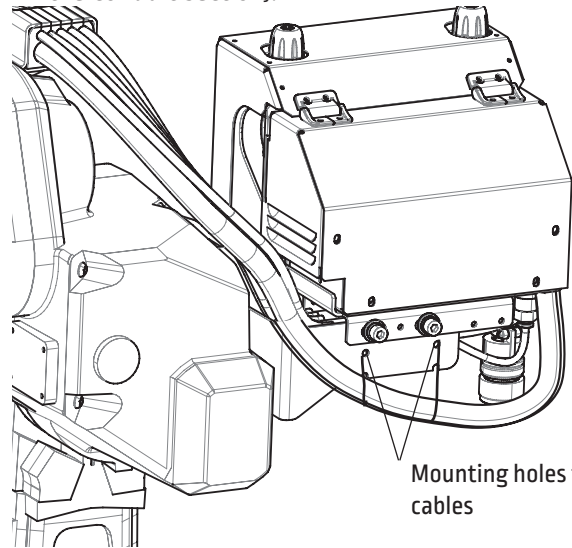
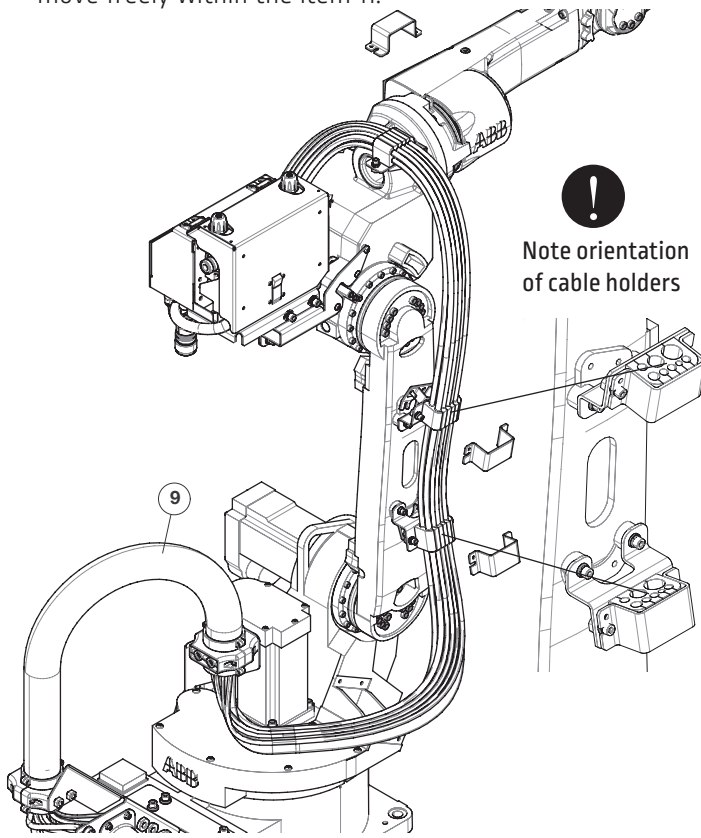
6. Place the dress kit on the robot. Starting at the top, secure the first rectangular strain relief to the robot. As shown in the figure below, make all cable bundles go through item 9. At both end of the item 9, secure all cables within the item 12 axis 1 rubber holders. With Hardware P - secure both end of the item 9 and item 12 within the 4 item 11, the conduit clamp. Using the remaining two item 11 to fix the assembled item 10 at both ends. One end should be fixed at the item 7. The other should be fixed at item 6. When this step is completed, the corrugated tube should move freely within the item 11.

9. Terminate all tubes, hoses, and cables at the base bulk-head Connect the other ends of the tubes and cables to wirefeeder.

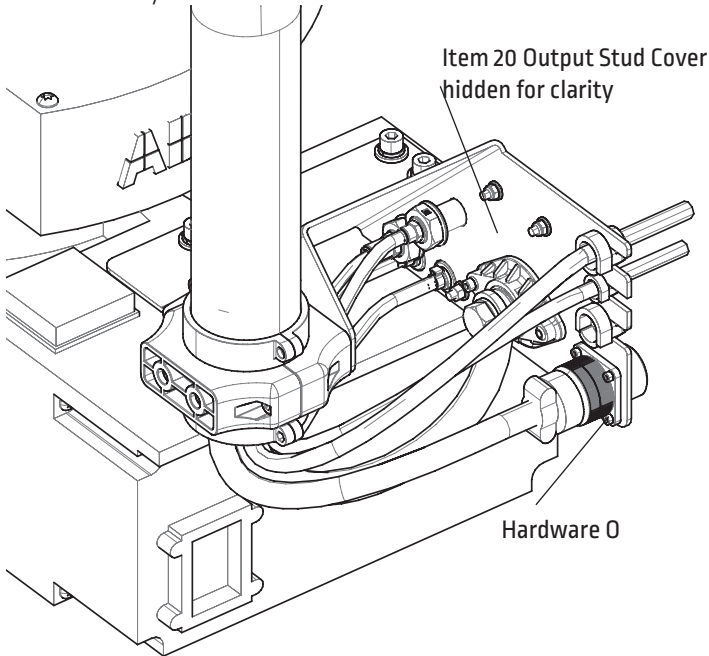
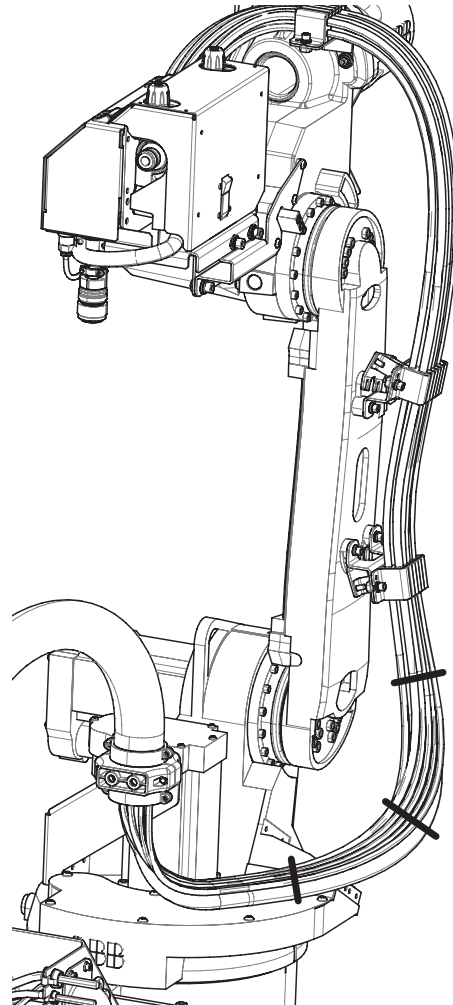
a. Trim air/gas tubes accordingly. These are intentionally left a few inches long for the end user to trim as necessary.

10. Using a crimping tool, crimp the water fitting on the water hose if it doesn't come already installed.

11. Install cable ties between each clamp section (excluding the conduit section).



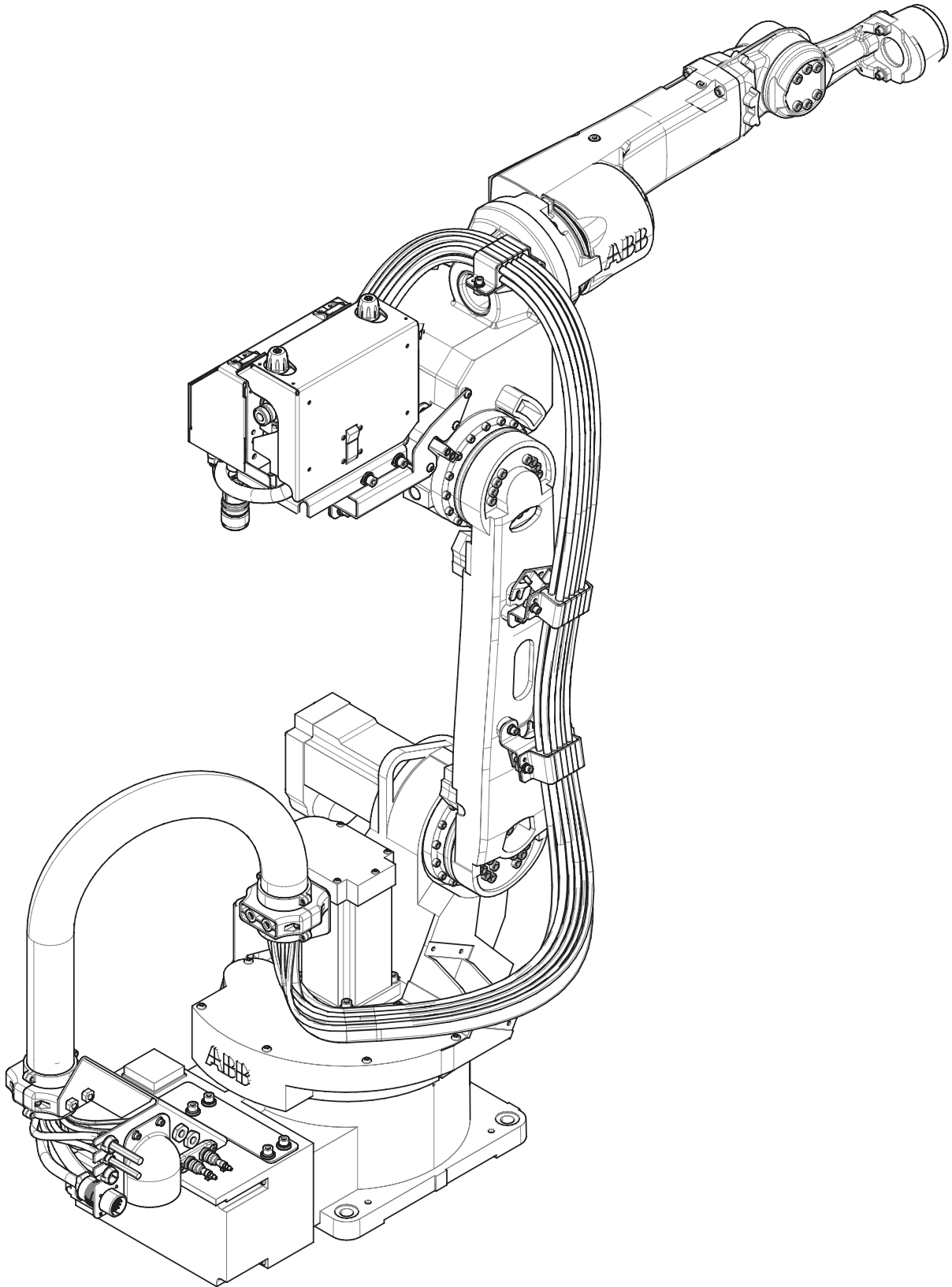
8. Before attaching the last round clamp, terminate any cables that might be hard to reach. Having the conduit out of the way can make this easier.



Install 3 zip ties as shown to secure cable bundle between axis 1 & axis 2

# Step 9

Tighten all hardware on robot. Check movement of arm is not constricted.



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# K4253-IRB1520ID-B

## S30266-28 Hardware Kit Contents

Hardware N (Bracket B to Robot base)	M8x15 bolt	4
	M8 spring washer	4
	M8 flat washer	4
Hardware AB (control cables and water hose for A&B Bracket)	M3X8 screws	8
	M5x16 screw	4
	M5 nut	4
	M5 flat washer	8
	Water hose clamp	4
	M5 Slip washer	4
Hardware P (corrugated pipe to bracket )	M8x15 bolt	4
	M6x36 bolt	4
	M6 nut	4
	M3x10 screws	8
	M3 nut	8
Hardware R (cable brackets on Robot)	M6x16 bolt	12
	M6 spring washer	12
	M6 flat washer	12
Hardware S (feeder brackets to arm	M8x20 bolt	12
	M6x16 bolt	2
	M8 spring washer	12
	M8 flat washer	12
	M6x16 button head	3
	M6 Spring Washer	2
	M6 Flat Washer	2
Hardware D (output stud and cover)	M4x18 bolt	2
	M5x16 bolt	2
	M5 nut nylock	2
	M5 flat washer	4
	1/2 Bolt	1
	1/2 flat washer	2
	1/2 Nut	1
	1/2 Spring Washer	2
Hardware J	Black Zip Tie	10