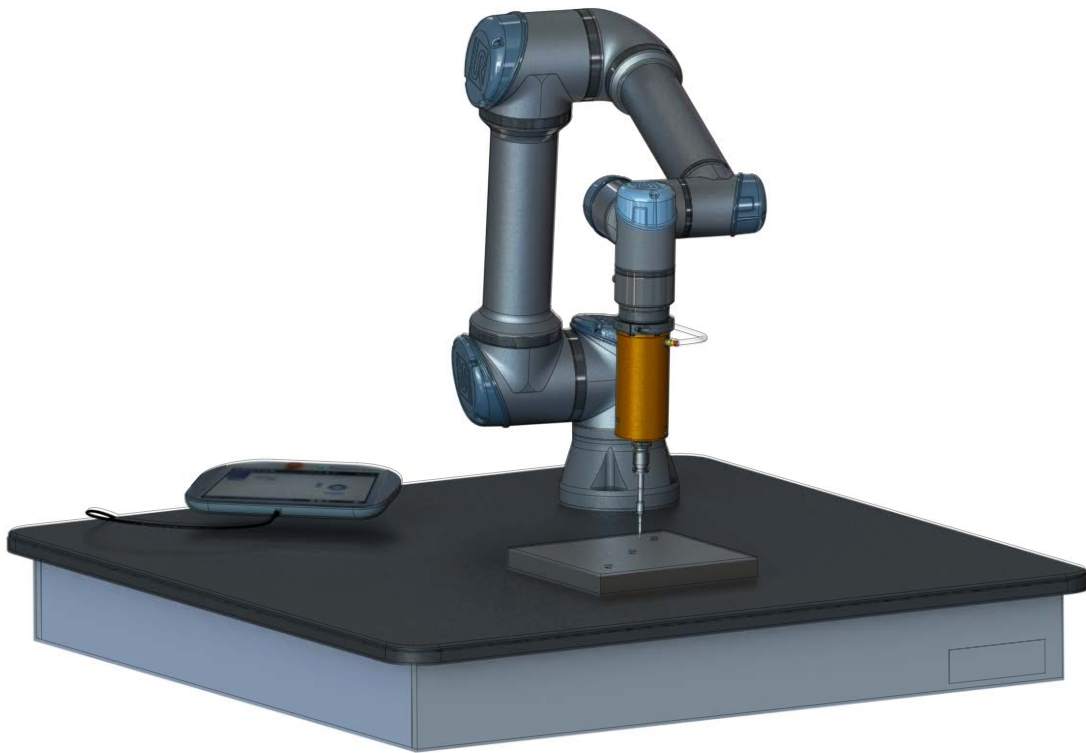




ATI Material Removal URCaps Quick Start Manual for URe and UR CB



Document #: 9610-50-1038

Foreword

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Note:

Please read the manual before calling customer service and have the following information available:

1. Material removal tool model (for example: CDB or 9150-CDB-8-11-000)
2. Accurate and complete description of the question or problem.
3. Computer and software information (operating system, PC type, drivers, application software, and other relevant information about the application's configuration)

Be near the system when calling (if possible).

Please contact an ATI representative for assistance, if needed:

For sale, service, technical support, and information about ATI products:

ATI Industrial Automation

1031 Goodworth Drive
Apex, NC 27539 USA

www.ati-ia.com

Tel: +1.919.772.0115

Fax: +1.919.772.8259

Application Engineering

Tel: +1.919.772.0115


Fax: +1.919.772.8259

E-mail: ApplicationsEngineers@ati-ia.com

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Glossary

Term	Definition
ATI Material Removal (MR) URCap Software	An ATI software program that enables the UR robot to implement material removal commands in a robot program.
Blade	A cutting tool used to remove burrs from the work piece.
CDB	Compliant Deburring Blade. A material removal tool that is designed and manufactured by the company ATI.
Compliance	The ability of the spindle to passively move in response to protrusions on or deviations of the work piece.
Interface Plate	A separate plate that attaches the material removal tool to another surface. Interface plates are often used if the bolt pattern on the tool doesn't match the bolt pattern on the robot arm. The interface plate has (2) bolt patterns on either side of the plate. One side is for the material removal tool. The other side is for the robot arm.
Hamburger Menu 	A drop-down menu button on the URe Teach Pendant screen that includes the following: help, about, and settings.
Plug-in Technology	A customized program that when downloaded and installed onto a host device adds a specific feature to an existing computer program.
P/N	Part Number
Polyscope	UR software on the teach pendant.
Qty.	Quantity
Teach Pendant	A handheld device or control box for programming the motions of a robot.
UR CB-series robot	A collaborative robot manufactured and distributed by the company Universal Robots (UR). CB denotes a robot from the CB-series product line.
URe robot	A collaborative robot manufactured and distributed by the company, Universal Robots (UR). URe denotes a robot from the UR E-series product line.
UR Kit	A packaged option that includes a material removal tool, blade, an interface plate kit for mounting the tool to the robot, hex keys for installing the tool to the robot, and ATI URCap software.
USB Drive	A USB (universal serial bus) drive is a device that data such as the downloaded ATI URCap software and can be attached to a host device with plug-in technology. Sometimes a USB drive is called a USB stick or USB disk.

1. Safety

The safety section describes general safety guidelines to be followed with this product, explanations of the notifications found in this manual, and safety precautions that apply to the product. Product specific notifications are imbedded within the sections of this manual (where they apply).

1.1 Explanation of Notifications

These notifications are used in all of ATI manuals and are not specific to this product. The user should heed all notifications from the robot manufacturer and/or the manufacturers of other components used in the installation.



DANGER: Notification of information or instructions that if not followed will result in death or serious injury. The notification provides information about the nature of the hazardous situation, the consequences of not avoiding the hazard, and the method for avoiding the situation.



WARNING: Notification of information or instructions that if not followed could result in death or serious injury. The notification provides information about the nature of the hazardous situation, the consequences of not avoiding the hazard, and the method for avoiding the situation.



CAUTION: Notification of information or instructions that if not followed could result in moderate injury or will cause damage to equipment. The notification provides information about the nature of the hazardous situation, the consequences of not avoiding the hazard, and the method for avoiding the situation.

NOTICE: Notification of specific information or instructions about maintaining, operating, installing, or setting up the product that if not followed could result in damage to equipment. The notification can emphasize, but is not limited to: specific grease types, best operating practices, and maintenance tips.

1.2 General Safety Guidelines

Prior to purchase, installation, and operation of the ATI material removal tool, the customer should first read and understand the operating procedures and information described in its manual (refer to [Section 2—Overview](#)). Never use the material removal tool for any purposes, or in any ways, not explicitly described in that manual. Follow installation instructions and pneumatic connections as described in that manual.

All pneumatic fittings and tubing must be capable of withstanding the repetitive motions of the application without failing. The routing of pneumatic lines must minimize the possibility of stress/strain, kinking, rupture, etc. Failure of critical pneumatic lines to function properly may result in equipment damage.

1.3 Safety Precautions



WARNING: Never operate the material removal tool without wearing eye protection. Flying debris can cause injury.



WARNING: Before installing or operating the CDB product, the user must ensure the risk assessment for the application has been updated to include the product. For further information, refer to [Section 1.4—Risk Assessment](#). Failure to complete a risk assessment of the application can result in injury and damage to the equipment.

1.4 Risk Assessment

ATI products are one component in a multi-component industrial/collaborative robot application; therefore, the robot integrator must perform a risk assessment on the whole industrial/collaborative robot application. In this risk assessment, consider all safety aspects of that application for the safe operation of ATI products.

For guidance in completing this risk assessment, consult the following resources:

- [ISO 12100](#) and [ISO 10218-2](#)
- Technical Specification [ISO/TS 15066](#)

ATI has identified some potential hazards that could be present in an application. Consider the following points with respect to material removal and Tool Change applications:

- Aerial-bound debris from a material removal process
- Improperly specified media breaking or ejecting away from the work piece; for example: the media is not correctly rated for rotational speed or force
- An article of clothing or hair caught in a tool change, cutting, grinding, sanding or deburring application
- Mishandling sharp deburring blades and bits (or accidental contact during operation)
- A dropped Tool plate or end-of-arm tooling because an electrical signal is lost and causes loss of air to the application
- A pinch-point between a Master and Tool side, during a Tool Changer lock operation

Depending on the application, end-of-arm tooling can be inherently dangerous and there may be risks that require additional protection and/or safety considerations that are not presented in this manual.

2. Overview

This manual is a quick reference guide for the setup and installation of ATI's Compliant Deburring Blade (CDB) to Universal Robots e-series (URe) and CB-series (UR CB) robots. The ATI URCaps software is compatible with following software versions (or above): 5.2.0 (URe) and 3.8.0 (UR CB). For a cross-reference to the procedures for the specific UR series robot, refer to the following table:

Table 2.1—Cross-Reference Guide to the Procedures for a Specific UR Series Robot	
Version	Section
CB series (3.8.0)	Section 4—Setup of the ATI Material Removal URCaps Software for UR CB
E series (5.2.0)	Section 5—Setup of the ATI Material Removal URCaps Software for URe

The user must understand how to operate the URe and UR CB-series teach pendant *Polyscope* interface in order to operate the material removal tool with a URe or UR CB-series robot. For more information about *Polyscope* interface and other UR products, refer to <https://www.universal-robots.com/support/>.

For more information about the CDB tool refer to [Compliant Deburring Blade Tool Manual](#) (ATI P/N 9610-50-1030) or visit the webpage on the ATI website at: <https://www.ati-ia.com/cobotready>.

2.1 ATI UR Kit

ATI provides the following CDB kit option:

Table 2.2—ATI Material Removal Kit (P/N 9150-UR-CDB-01) for URe and UR CB-Series Robots			
Item	Description	P/N	Qty.
CDB Tool	8 mm stroke, 11 degree radial compliance, no options	9150-CDB-8-11-000	1
Blade	CDB insert, Style E, Shaviv E100	9005-50-6071	1
Interface Plate Kit	(1) interface plate : dovetail Style A to BC 50, 31.5 mm Boss ¹ , (4) M6 holes, (1) M6 dowel pin hole (1) clamping collar (2) M4-0.7 x 16 mm	9005-50-6080	1
Robot Mounting Fasteners	M6X12 socket head cap screws, 12.9, ISO4762/DIN912, ES-ATI-007	3500-1066012-15	4
Dowel Pin	M6 x 10 mm guide pin ¹	3540-0106010-11	1
5 mm hex key	Hex key for installing the M6 socket head cap screws to the interface plate and robot	3690-0000103-00	1
3 mm hex key	Hex key for installing the clamp to the CDB tool	3690-0000108-00	1
Filter, Valve, and Regulator	Filter/Valve/Regulator kit that includes 10 ft of 5/32" pneumatic tube	9005-50-6150	1
Note:			
1. Use the M6 dowel pin and boss to guide the interface plate onto the robot arm.			

2.1.1 Unpacking the ATI Material Removal Kit

Upon receipt of a kit, complete the following:

1. Check the shipping container and components for damage that may have occurred during shipping. Report damage to ATI Industrial Automation (refer to [page 2](#)).
2. Verify the components from the packing list are included in the kit.
3. For standard components included in the kit, refer to [Section 2.1—ATI UR Kit](#).

3. Installation

Before installation, refer to [Section 1—Safety](#) for general safety and risk assessment guidelines.

3.1 Installing the Material Remover Kit to the Robot and Customer Tooling

For complete installation instructions, refer to the [Compliant Deburring Blade Tool Manual](#) (ATI P/N 9610-50-1030) and the drawing in [Section 7.1—CDB Kit for UR \(ATI P/N 9640-50-1027\)](#). For torque and threadlocker specifications, refer to the following table:

Table 3.1—Threadlocker and Torque Recommendations for Fasteners in Kit P/N 9150-UR-CDB-01			
Mounting Condition	Fastener Size	Recommended Torque	Thread Locker
Installation of the interface plate to the robot arm.	M6X12 Socket Head Cap Screw	89 in-lbs (10 Nm)	Loctite® 242™
Installation of the clamping collar to secure the tool to the interface plate	M4-0.7 x 16 mm Socket Head Cap Screw	25 in-lbs (2.8 Nm)	Loctite® 222™

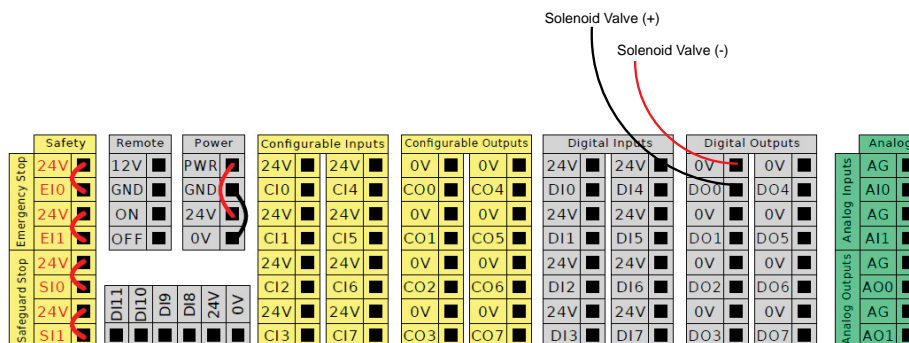
3.2 Installing a Two-Position Solenoid Valve to the UR Control Box

For supplemental information to install the filter, valve, and regulation kit, refer to the drawing in [Section 7.1—CDB Kit for UR \(ATI P/N 9640-50-1027\)](#). When installing the electrical connections on the two-position solenoid valve from the kit to the electrical interface inside the UR control box, refer to the following instructions:

1. Route the black wire (+) on the solenoid valve to the Digital Output Zero (DO0) (refer to [Figure 3.1](#)).
2. Route the red wire (-) on the solenoid valve to a Zero Volt (0V) output.

NOTICE: In [Figure 3.1](#), the black wire (+) is routed to DO0, but the black wire can be routed to any available digital output. Be sure to select the corresponding digital output in the URCap installation settings (refer to [Figure 4.11](#) for CB series or [Figure 5.11](#) for E series). Likewise, the red wire (-) can be routed to any of the available 0V outputs.

Figure 3.1—Installation of a Two-Position Solenoid Valve to a UR



4. Setup of the ATI Material Removal URCaps Software for UR CB

To use an ATI material removal tool with a UR CB-series robot, the user must first install and set-up the ATI URCaps software to the robot. For more detailed information on the UR CB-series teach pendant software functionality such as safety, operation, and UR nomenclature, refer to the [UR Polyscope Manual, Version 3.8](#). For consistency, UR nomenclature is used in the following procedures.

4.1 Downloading ATI Material Removal URCaps Software from the ATI Website

Supplies required: Computer with web browser and internet access, USB drive

1. Using a web browser, navigate to <https://www.ati-ia.com/library/download.aspx>.
2. Download the ATI Material Removal URCap software package **ATIMaterialRemoval**.
3. Save the file to a local drive. (right click on the folder, and select **Export** or **Export All**)
4. Unzip the file.
5. Save the **MaterialRemover-1.0.3.urcap** file to a portable USB drive.
6. Eject the USB drive.

4.2 Loading the ATI URCaps Software on the Teach Pendant

To load the ATI URCaps software from the USB drive to the teach pendant, refer to the following steps:

1. Insert a USB drive that contains the ATI URCaps package into the USB port on the back of the teach pendant.

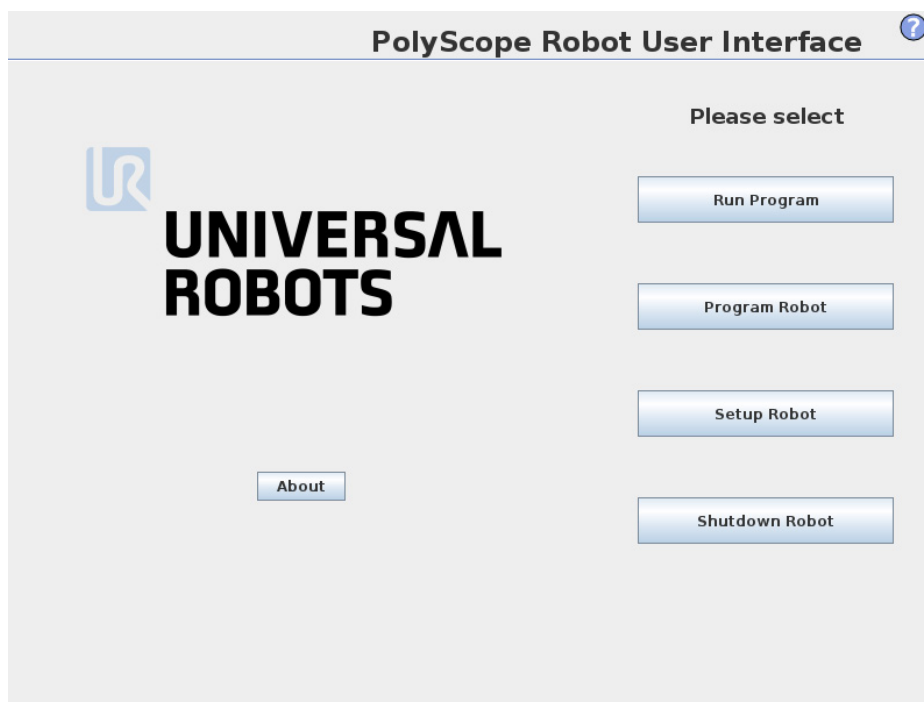
Figure 4.1—Insert USB Drive into USB Port on the Teach Pendant



2. Turn power on the teach pendant. The **Welcome** screen appears on the teach pendant.

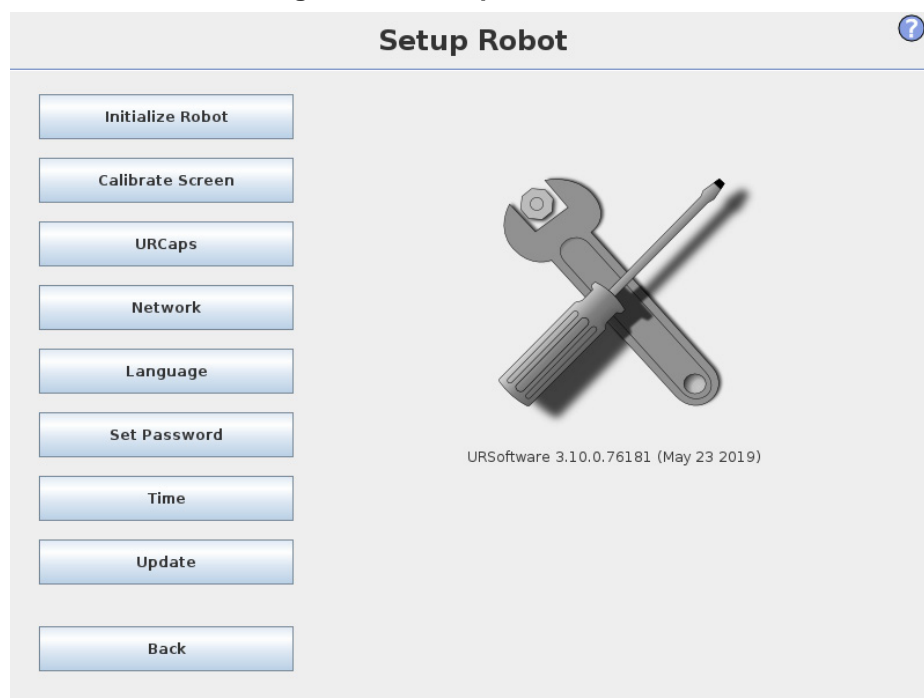
3. Click the **Setup Robot** button.

Figure 4.2—Welcome Screen



4. On the **Setup Robot** screen, click the **URCaps** button.

Figure 4.3—Setup Robot Screen




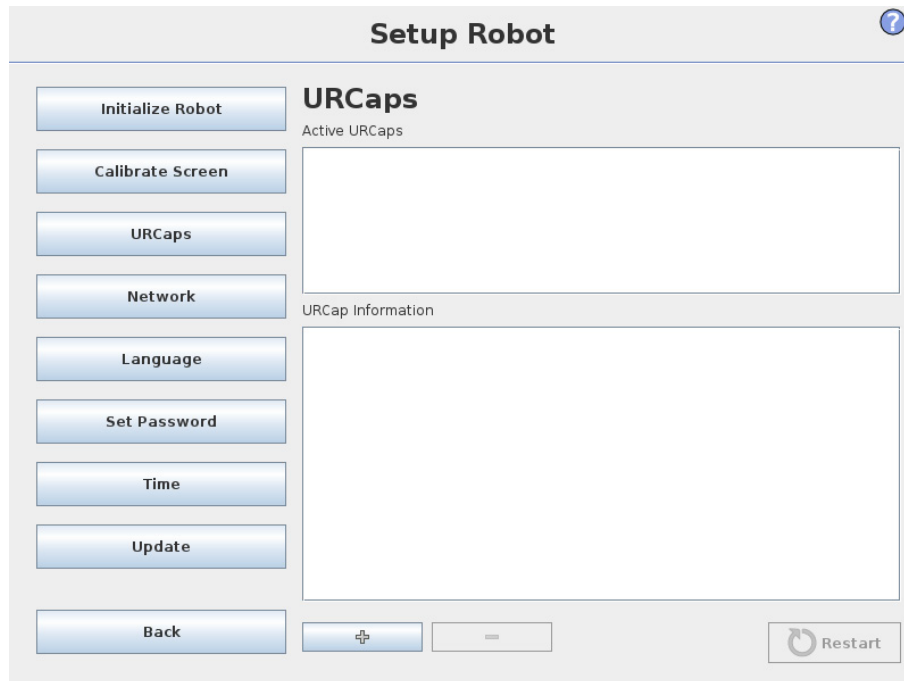
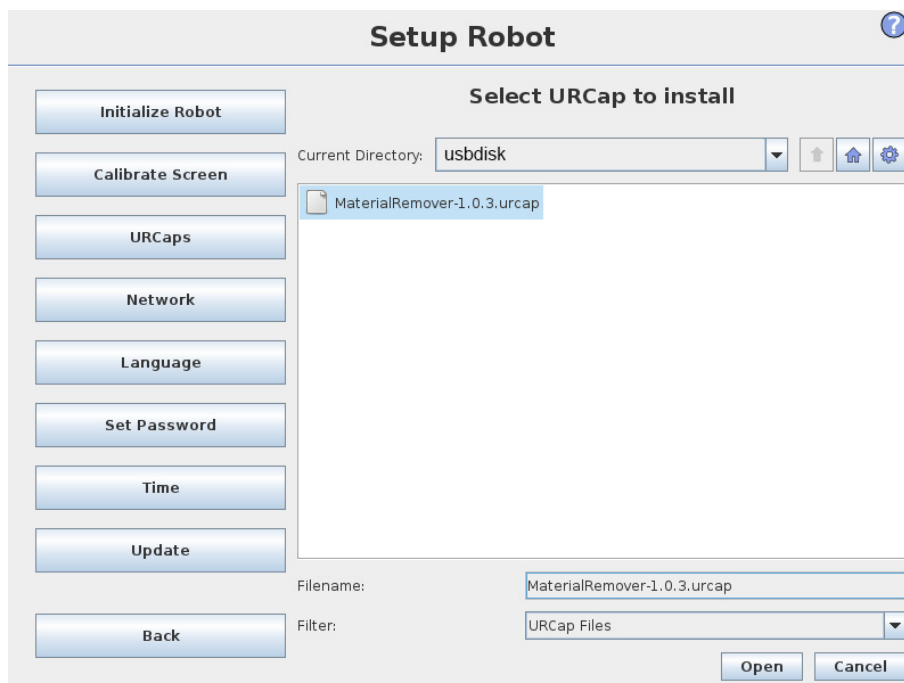
5. The **URCaps** screen opens. Load the ATI Material Removal software from the USB drive.
 - a. On the bottom of the screen, click the  button.

Figure 4.4—Settings Window



- b. Navigate to the directory where the ATI material removal software file is saved on the USB drive.

Figure 4.5—Open the File

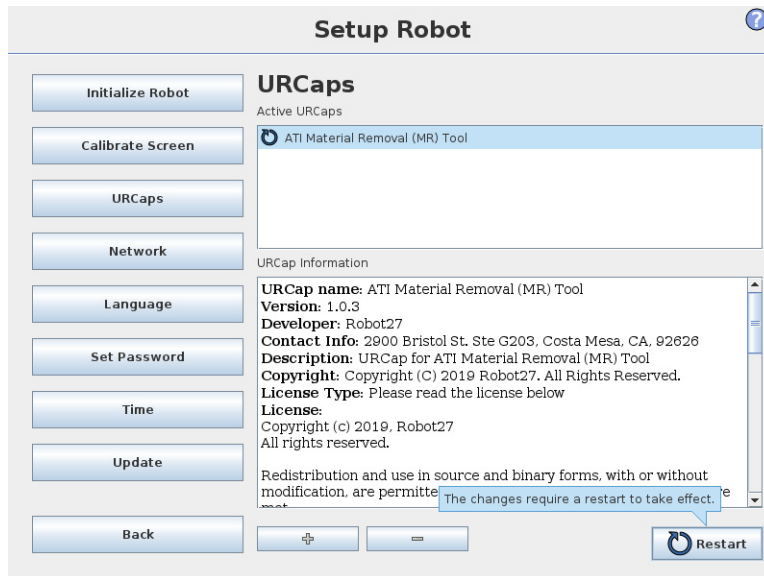


- c. Select the file.
 - d. Click **Open**. The file loads onto the teach pendant.

6. When the file has loaded, the software **ATI** appears in the **Active URCaps** field.

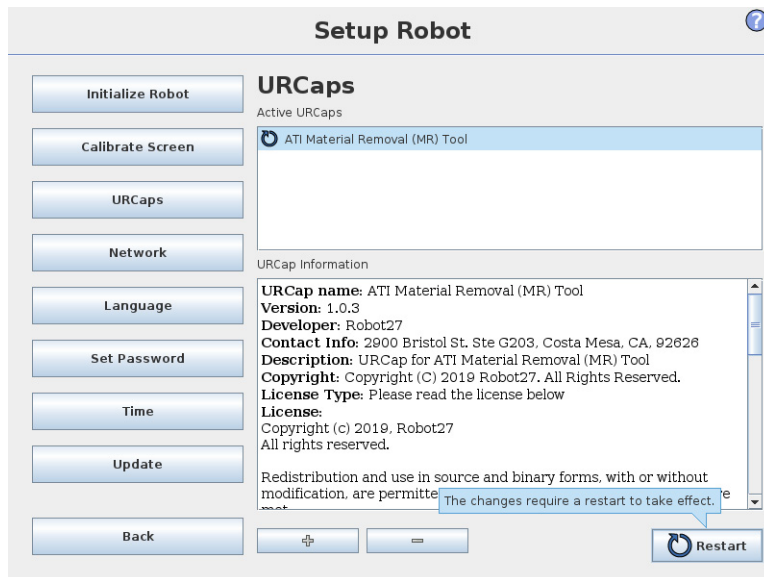
NOTICE: The UR system prompts a reboot of the robot, after the user installs the URCap software.

Figure 4.6—Active URCaps



7. (Optional) Select the file, **ATI Material Removal (MR) Tool** and information appears in the **URCap Information** field.

Figure 4.7—Active URCaps



8. Remove the USB drive.
9. The user can now setup the material removal tool on the teach pendent.

4.2.1 Remove the ATI URCaps Software from the Teach Pendant


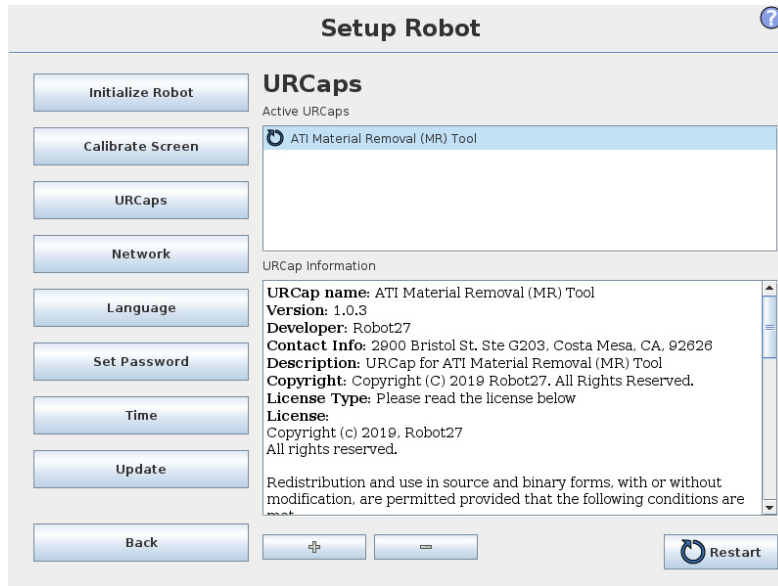
1. From the **Welcome** screen ([Figure 4.2](#)), click the **Setup Robot** button.
2. From the left side of the **Setup Robot** screen, select the **URCaps** button.
3. In the **Active URCaps** field, select the file to uninstall from the teach pendant.
4. Click the  button on the bottom of the screen.

Figure 4.8—Active URCaps

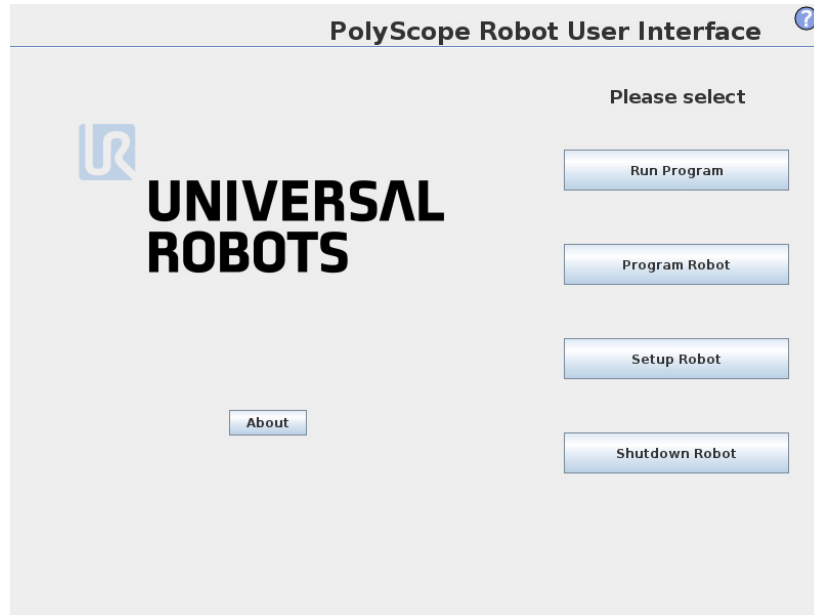


4.3 Set up an ATI Material Removal Tool on the Teach Pendant

Once the user loads the ATI URCaps software, now the user may set-up the material removal tool on the teach pendant.

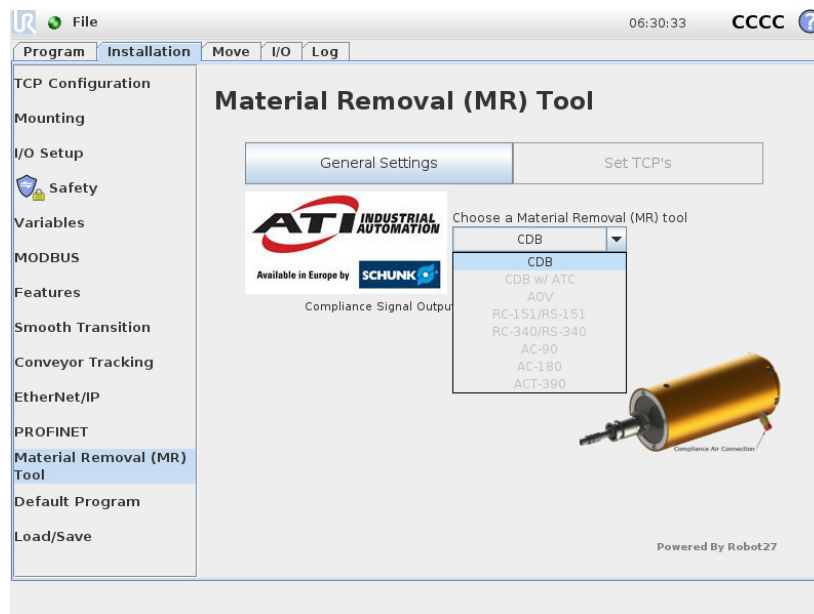
1. On the **Welcome** screen, click the **Program Robot** button.

Figure 4.9—Welcome Screen



2. Select the **Installation** tab.
3. On the left side, select **Material Removal (MR) Tool**.
4. From the top drop-down menu, select the **CDB** material removal tool.

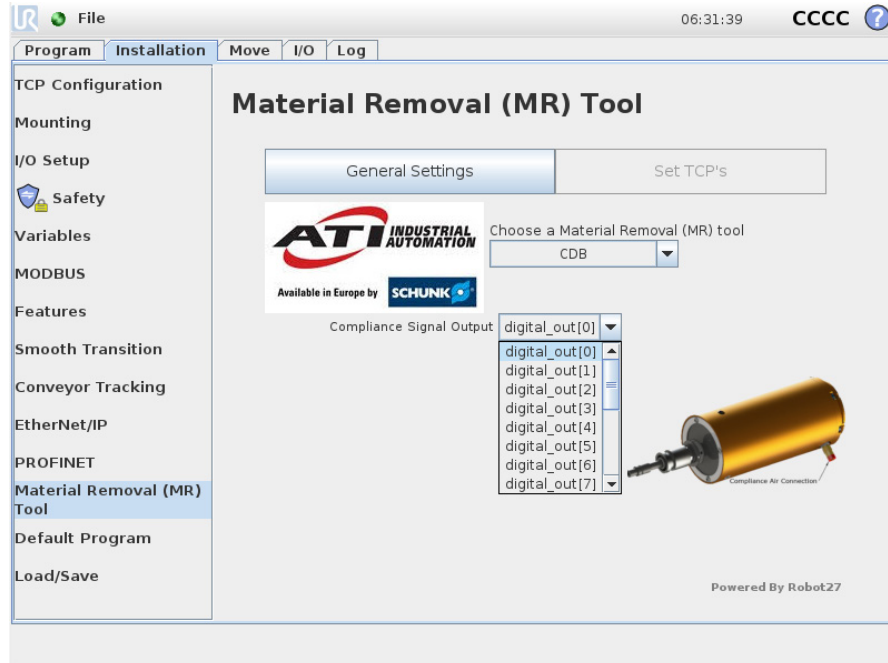
Figure 4.10—Material Removal (MR) Tool



Note: When setting-up the output signals, the user may rename the defaults to better suit their application (refer to [Section 4.3.1—\(Optional\) Rename the Default I/O Signals](#)).

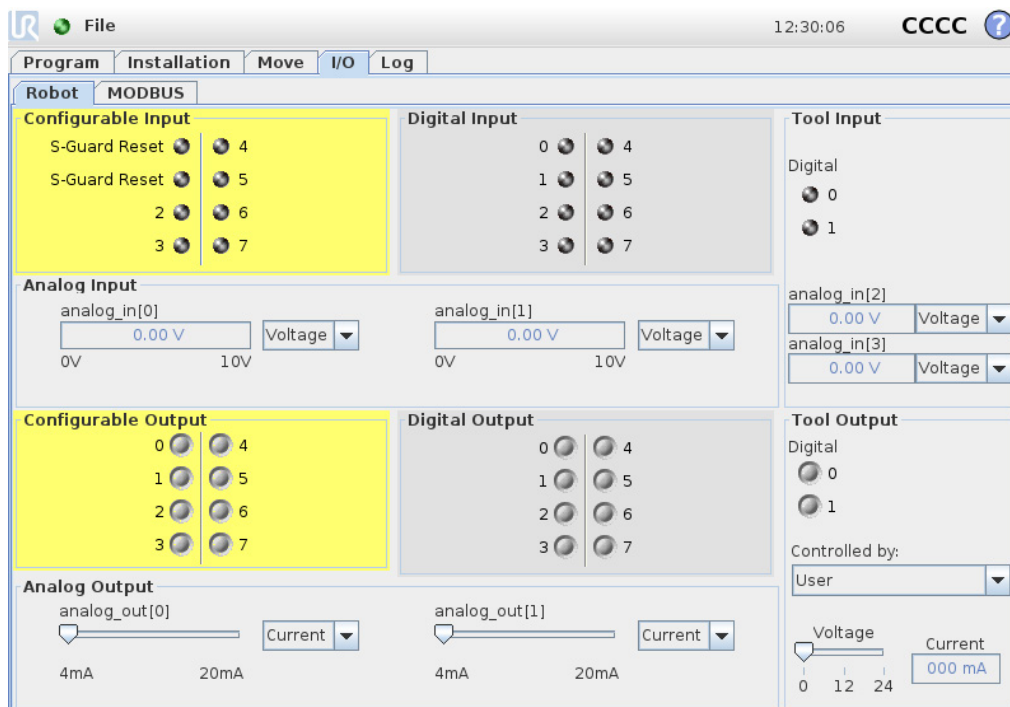
5. Set the general settings for the material remover:
 - a. From the **Compliance Signal Output** drop-down menu, select the appropriate output that corresponds to the user-determined settings on the **I/O Robot** screen (refer to [Figure 4.12](#)) and the electrical connection from [Section 3.2—Installing a Two-Position Solenoid Valve to the UR Control Box](#).

Figure 4.11—Select Compliance Signal Output



Note: To navigate to the **I/O Robot** Screen, select the **I/O** tab on the header.

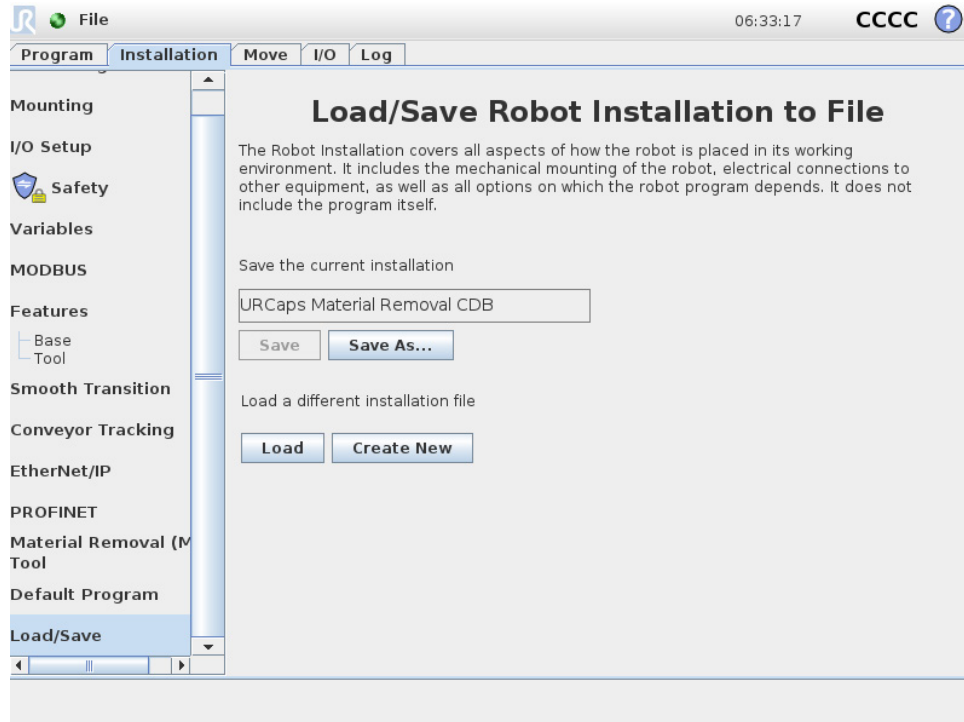
Figure 4.12—I/O Robot Screen



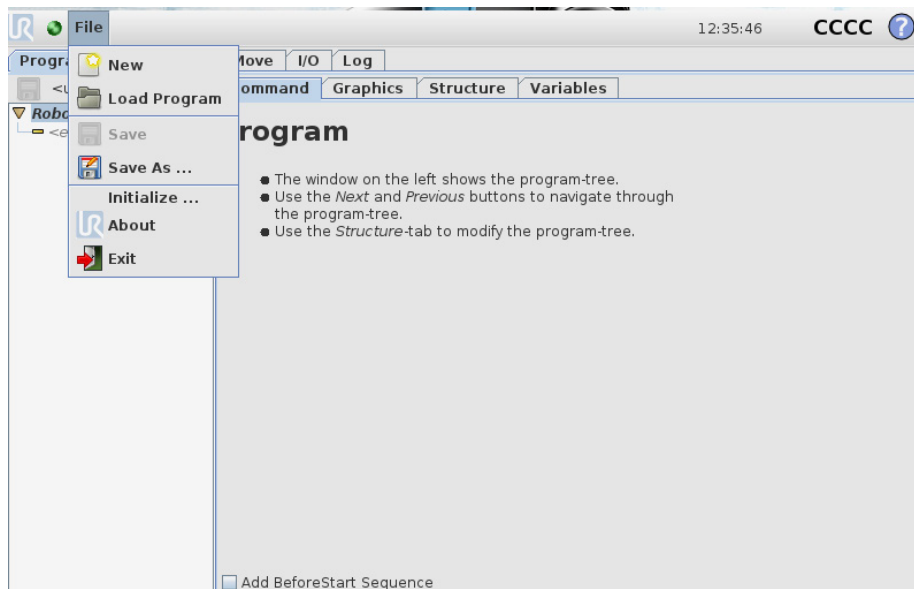
6. On the left side, select **Load/Save**.
7. Click the **Save As** button. Save the file.

Note: If the user is editing an existing file, then click **Save** from the drop-down menu.

Figure 4.13—Save Installation to File



Note: To return to the **Welcome** screen ([Figure 4.2](#)), click **File**. From the drop-down menu, select **Exit**.

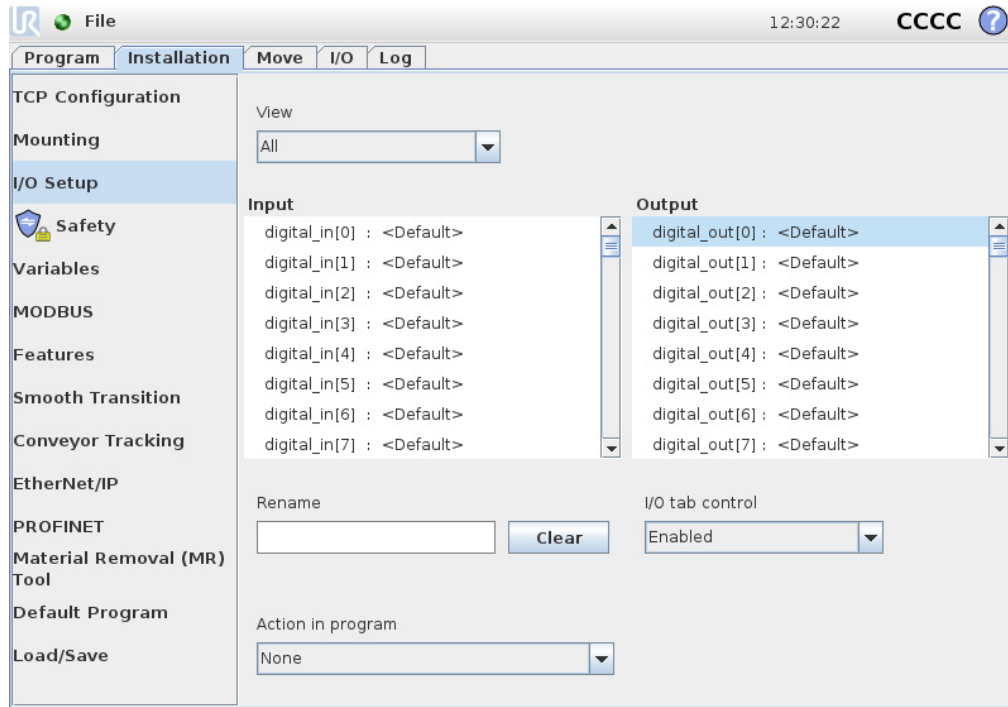


4.3.1 (Optional) Rename the Default I/O Signals

Users may find it convenient to rename the I/O default signals for easier reference during installation (refer to [Figure 4.11](#)). To rename the default output names, complete the following procedure:

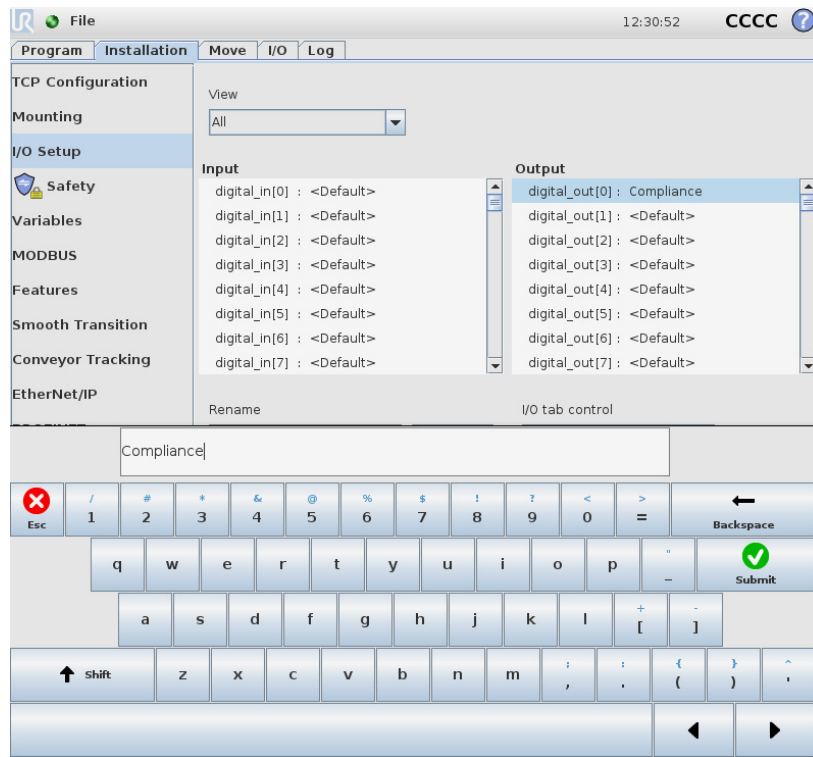
1. Select the **Installation** tab.
2. On the left side, select **I/O Setup**.
3. Select the signal **Output** to rename.

Figure 4.14—I/O Setup



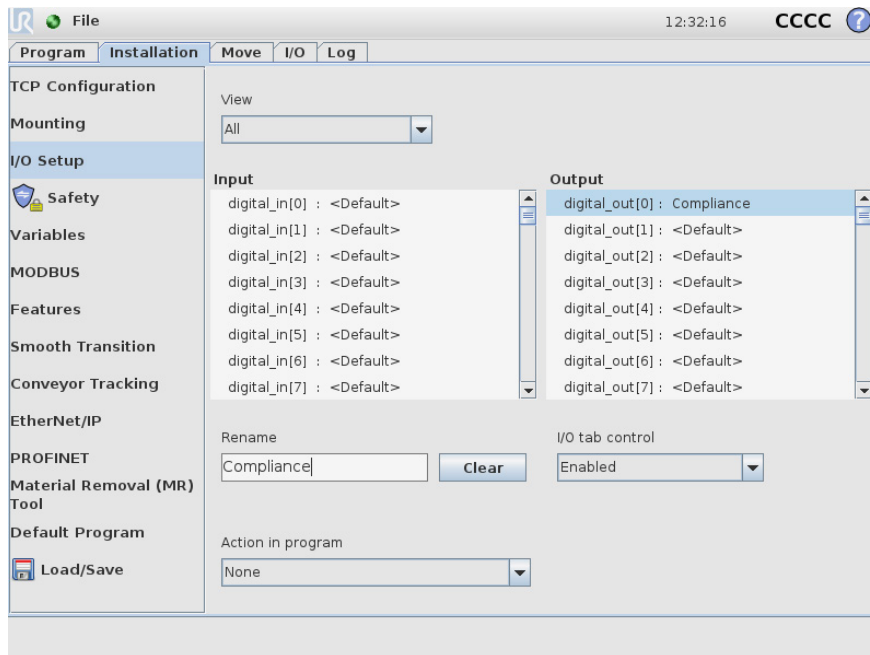
4. Type the new name on the keyboard, and select **Submit**.

Figure 4.15—Rename the Digital Outputs



5. The renamed **Output** signal appears next to the default signal name.

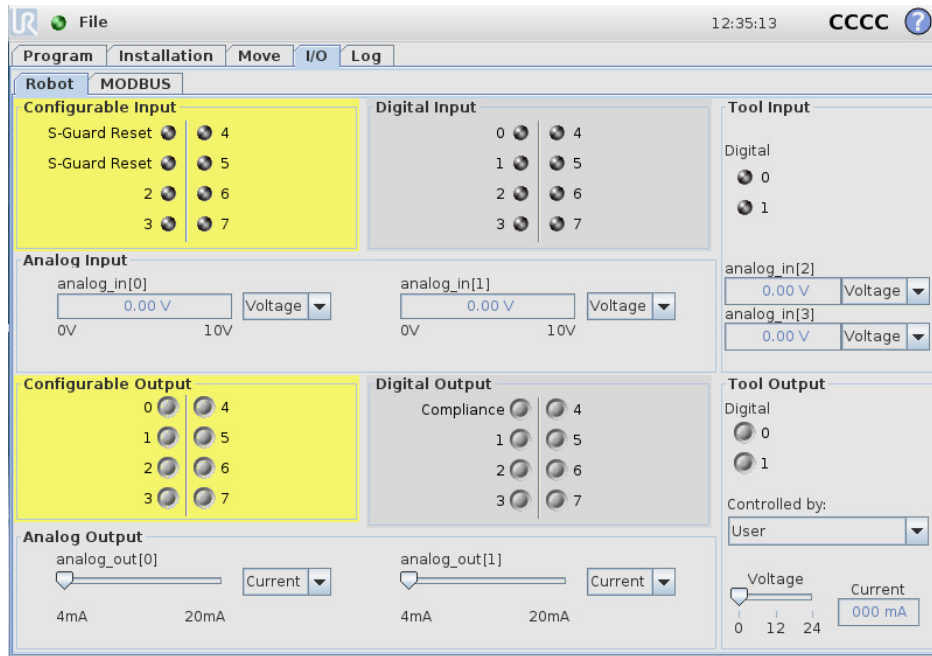
Figure 4.16—Rename the Digital Input and Outputs



Note: To reset an **Output** signal back to the default name, select the renamed signal, and click the **Clear** button.

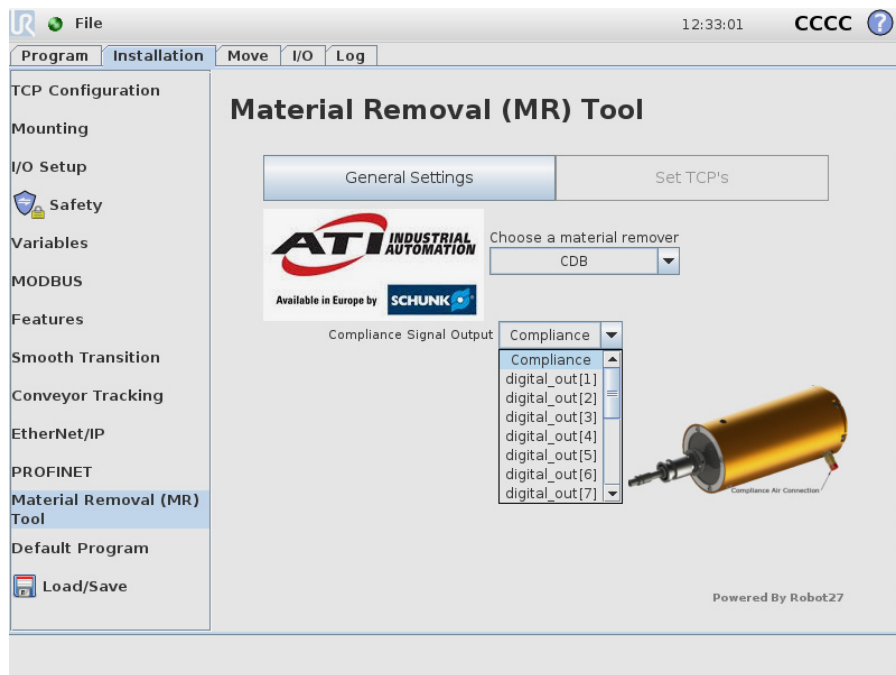
- (Optional) Select the **I/O** tab on the header, and note that the renamed **Output** signals appear on the **I/O** screen.

Figure 4.17—Updated Output on the I/O Screen



- Select the **Installation** tab.
- On the left side, select **Material Removal (MR) Tool** and **General Settings** button.
- From the **Output** signal drop-down menus, select the applicable renamed signal.

Figure 4.18—ATI URCaps Material Removal General Settings Screen



5. Setup of the ATI Material Removal URCaps Software for URe

To use an ATI material removal tool with a URe robot, the user must first install and set up the ATI URCaps software on the robot. For more detailed information on the URe teach pendant software functionality such as safety, operation, and URe nomenclature, refer to the [UR Polyscope Manual, Version 5.2](#). For consistency, URe nomenclature is used in the following procedures.

5.1 Download the ATI Material Removal URCaps Software from the ATI Website

Supplies required: Computer with web browser and internet access, USB drive

1. Using a web browser, navigate to <https://www.ati-ia.com/library/download.aspx>.
2. Download the ATI Material Removal URCap software package **ATIMaterialRemoval**.
3. Save the file to a local drive. (right click on the folder, and select **Export** or **Export All**)
4. Unzip the file.
5. Save the **MaterialRemover-1.0.3.urcap** file to a portable USB drive.
6. Eject the USB drive.

5.2 Load the ATI Material Removal URCaps Software on the Teach Pendant

To load the ATI Material Removal URCaps software from the USB drive to the teach pendant, refer to the following steps:

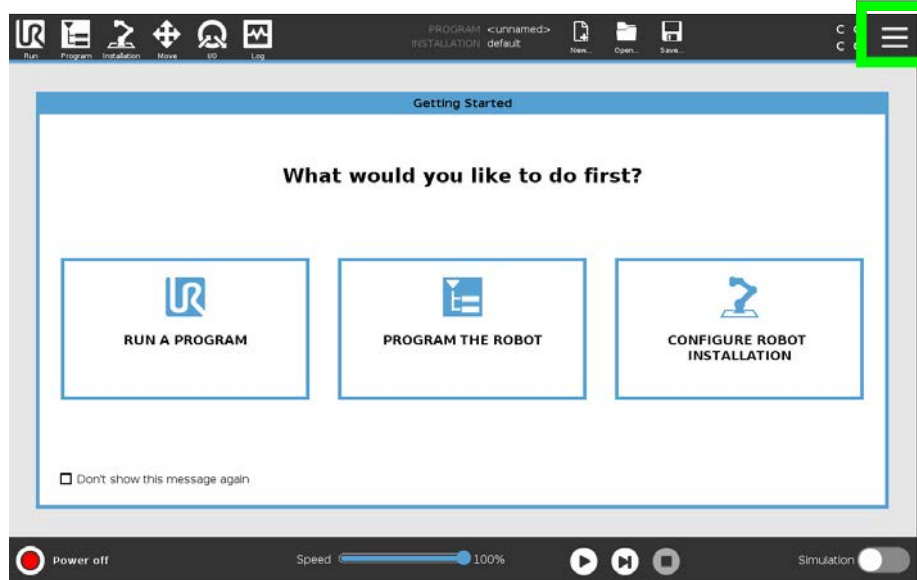
1. Insert a USB drive that contains the ATI Material Removal URCaps package into the USB port on the top of the teach pendant.

Figure 5.1—Insert USB Drive into USB Port on the Teach Pendant



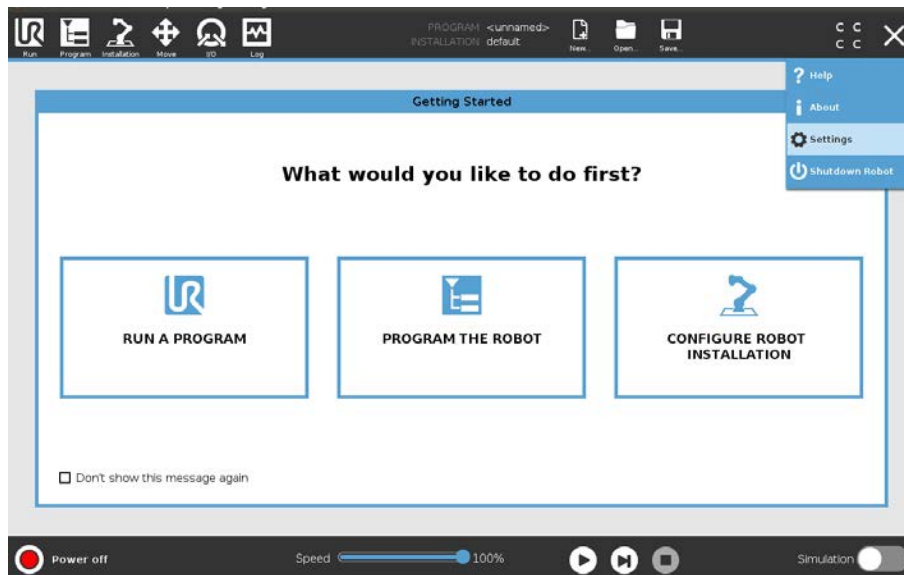
2. Turn on power to the teach pendant. The **Getting Started** screen appears on the teach pendant.
3. In the upper right-hand corner of the screen, select the **Hamburger** menu button.

Figure 5.2—Getting Started



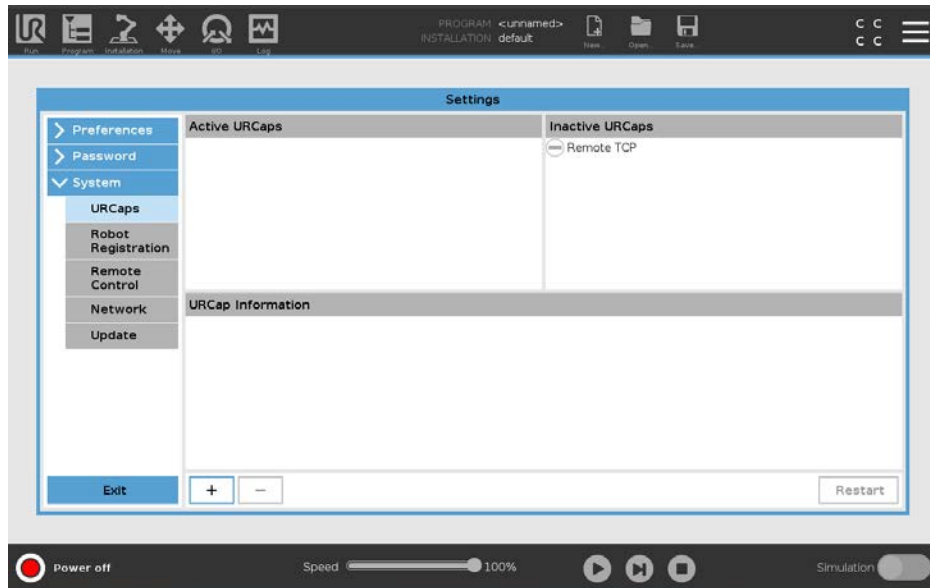
4. From the drop-down menu, select **Settings**.

Figure 5.3—Select Settings



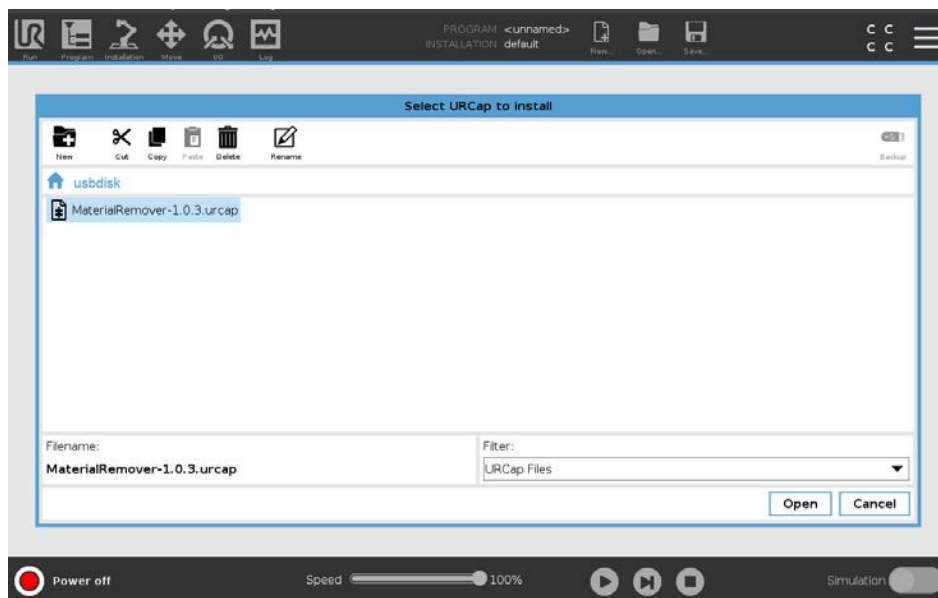
5. The **Settings** window opens. Load the file:
 - a. On the left side menu, select the **System** tab.
 - b. From the drop-down menu, select **URCaps**.
 - c. Select the button on the lower left-hand of the screen.

Figure 5.4—Settings Window



6. Navigate to the directory where the **MaterialRemover-1.0.3.urcap** file is saved on the USB drive.
7. Select the file.
8. Click **Open**. The file loads onto the teach pendant.

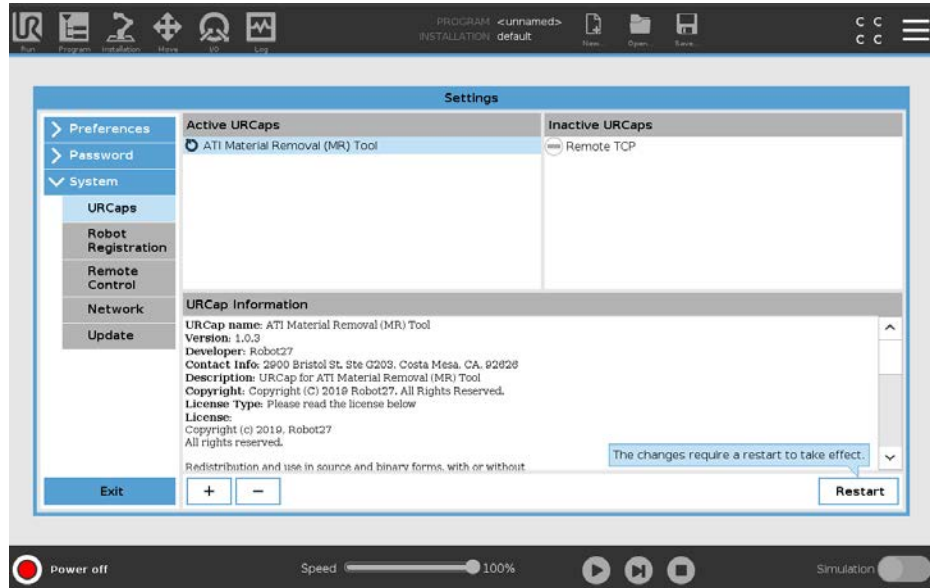
Figure 5.5—Open the File



- When the file has loaded, the software **ATI Material Removal (MR)Tool** appears in the **Active URCaps** field.

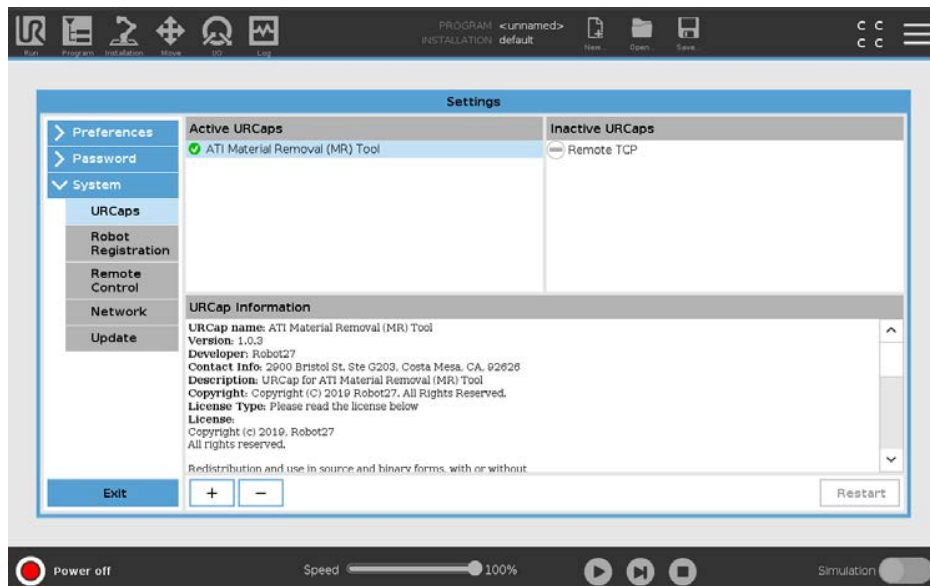
NOTICE: The UR system prompts a reboot of the robot, after the user installs the URCap software. Click the **Restart** button.

Figure 5.6—Active URCaps



- (Optional) Select the software, **ATI Material Removal (MR) Tool** and information appears in the **URCap Information** field.

Figure 5.7—URCaps Information Field

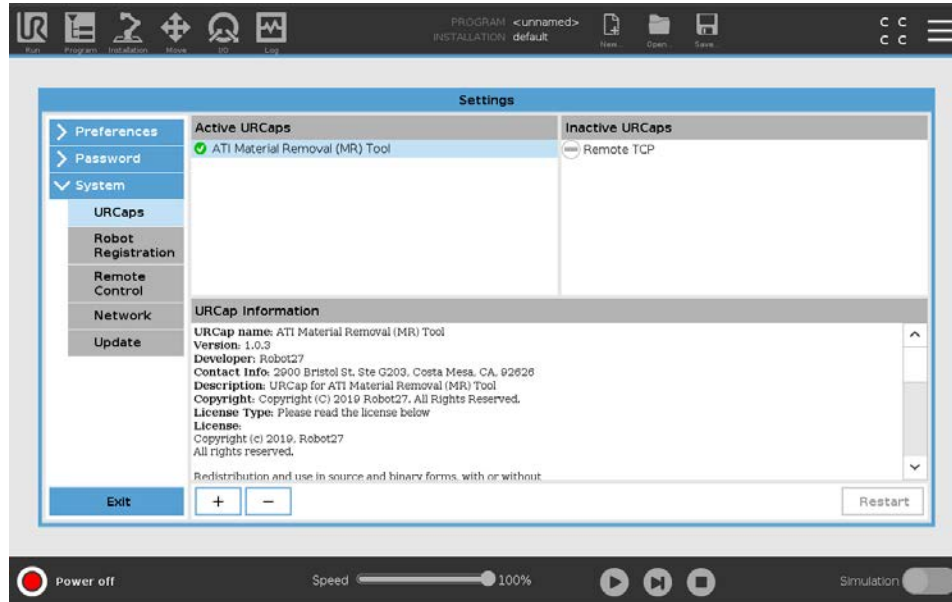


- Remove the USB drive.
- Click the **Exit** button.
- The user can now program the material removal tool on the teach pendent.

5.2.1 Uninstall the ATI URCaps Software from the Teach Pendant

1. In the upper right-hand corner of the screen, select the **Hamburger** menu button.
2. From the drop-down menu, select **Settings** (refer to [Figure 5.3](#)).
3. When the **Settings** window opens, select the **Systems** tab.
4. From the drop-down menu, select **URCaps**.
5. In the **Active URCaps** field, select the file to uninstall from the teach pendant.
6. Click the button on the lower left side of the screen.

Figure 5.8—Active URCaps



7. Click the **Exit** button to close the **Settings** window.

5.3 Set-up an ATI Material Removal Tool on the Teach Pendant

Once the user loads the ATI Material Removal (MR) URCaps software on the teach pendant, now the user may set up the ATI material removal tool on the teach pendant.

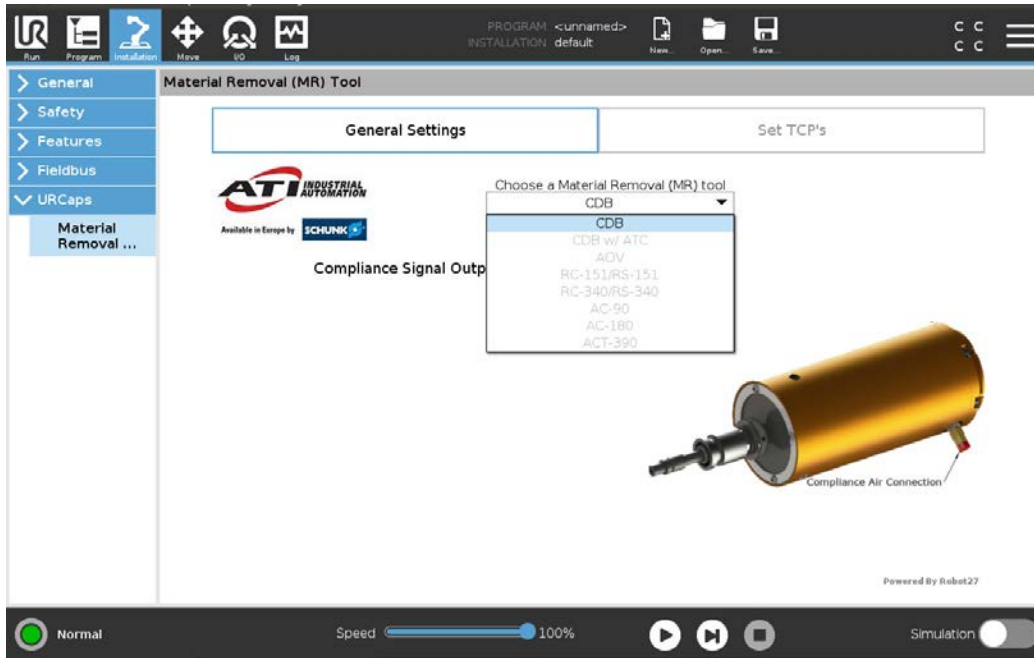
1. In the header, select the **Installation** icon.

Figure 5.9—Installation Icon on the Teach Pendant Header



2. On the left side menu, select the **URCaps** tab, and from the drop-down menu, select the material removal tool.

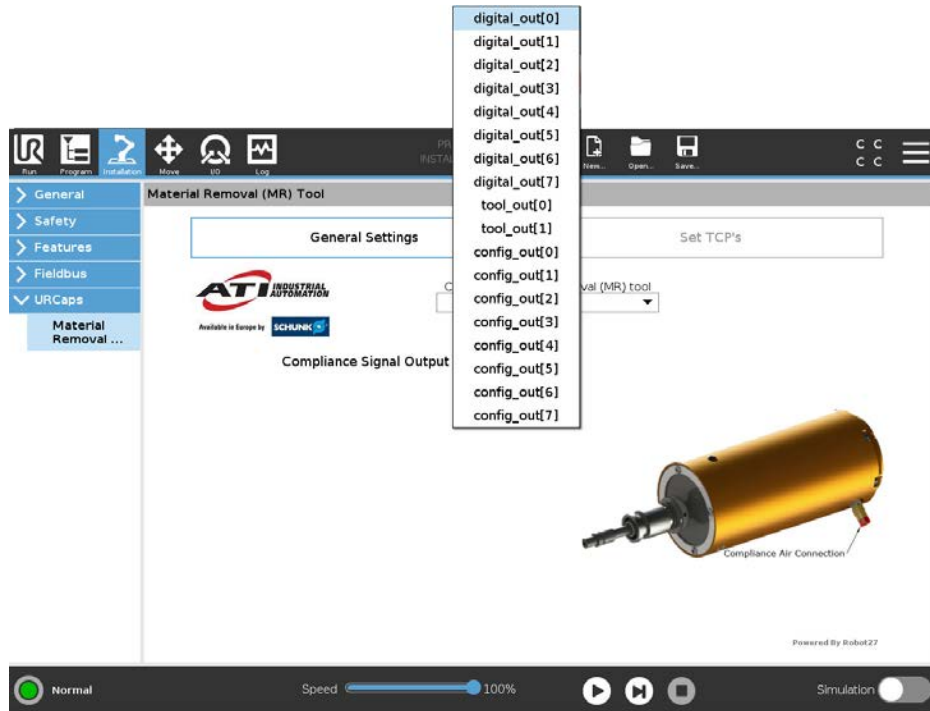
Figure 5.10—Select the Type of the Material Remover



Note: When setting-up the output signals, the user may rename the defaults to better suit their application (refer to [Section 5.3.1—\(Optional\) Rename the Default I/O Signals](#)).

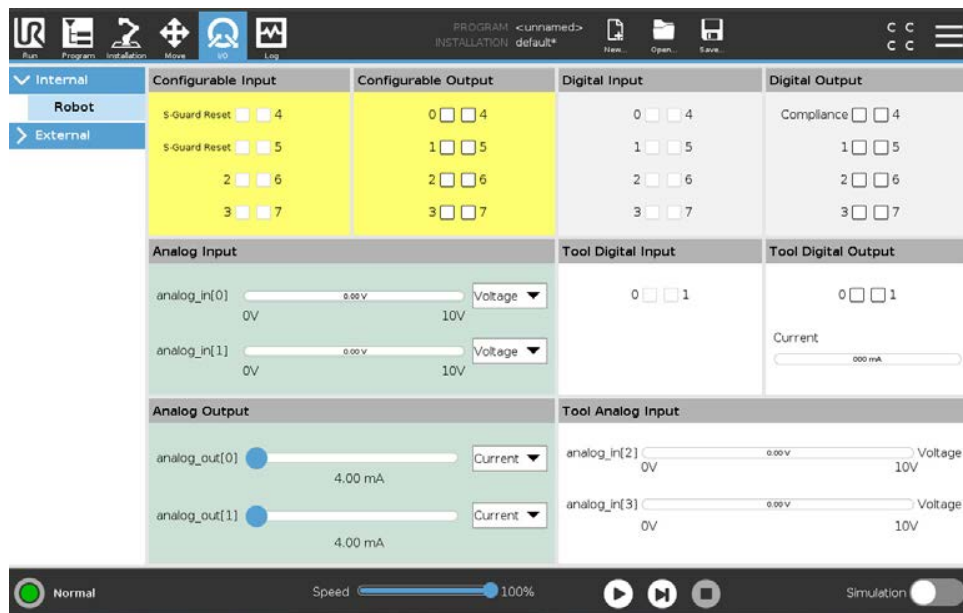
3. Set the general settings for the material removal tool:
 - a. From the **Compliance Signal Output** drop-down menu, select the appropriate output that corresponds to the user-determined settings on the **I/O Internal Robot** screen (refer to [Figure 5.12](#)) and the electrical connection from [Section 3.2—Installing a Two-Position Solenoid Valve to the UR Control Box](#).

Figure 5.11—Select Compliance Signal Output



Note: To navigate to the **I/O Internal Robot** Screen, select the **I/O** icon from the header.

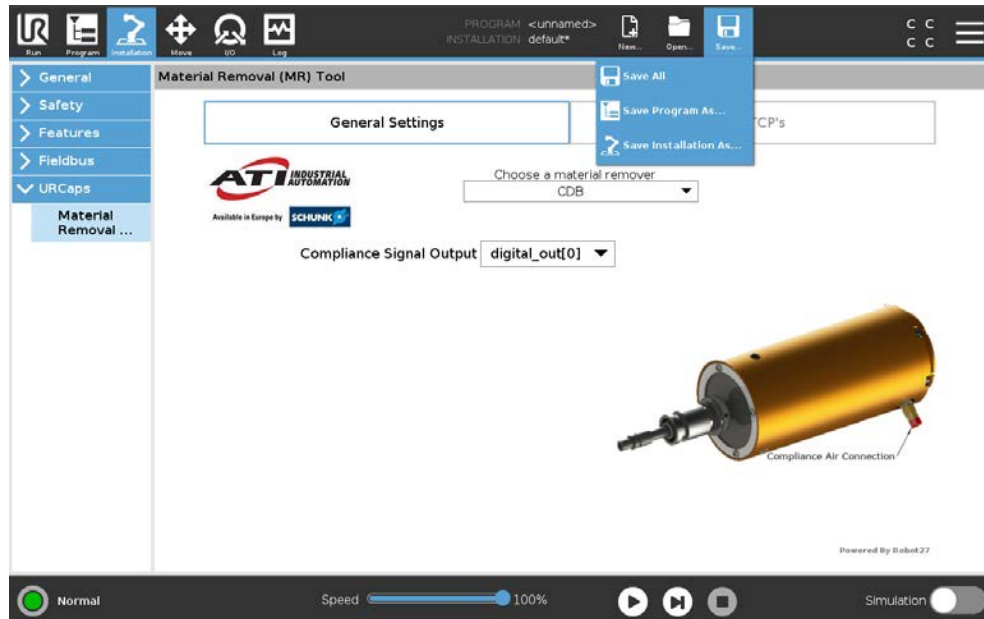
Figure 5.12—I/O Internal Robot Screen



4. On the header, select the **Save** icon, and from the drop-down menu, select **Save Installation**
As. Save the file.

Note: If the user is editing an existing file, then select **Save All** from the drop-down menu.

Figure 5.13—Save Installation Settings

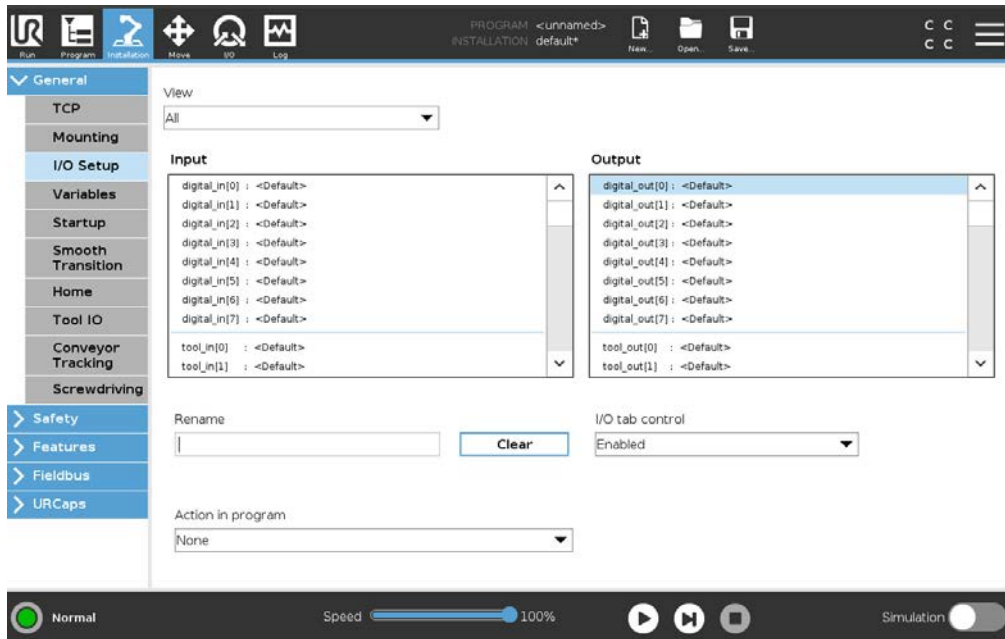


5.3.1 (Optional) Rename the Default I/O Signals

Users may find it convenient to rename the I/O default signals for easier reference during installation (refer to [Figure 5.11](#)). To rename the defaults, complete the following procedure:

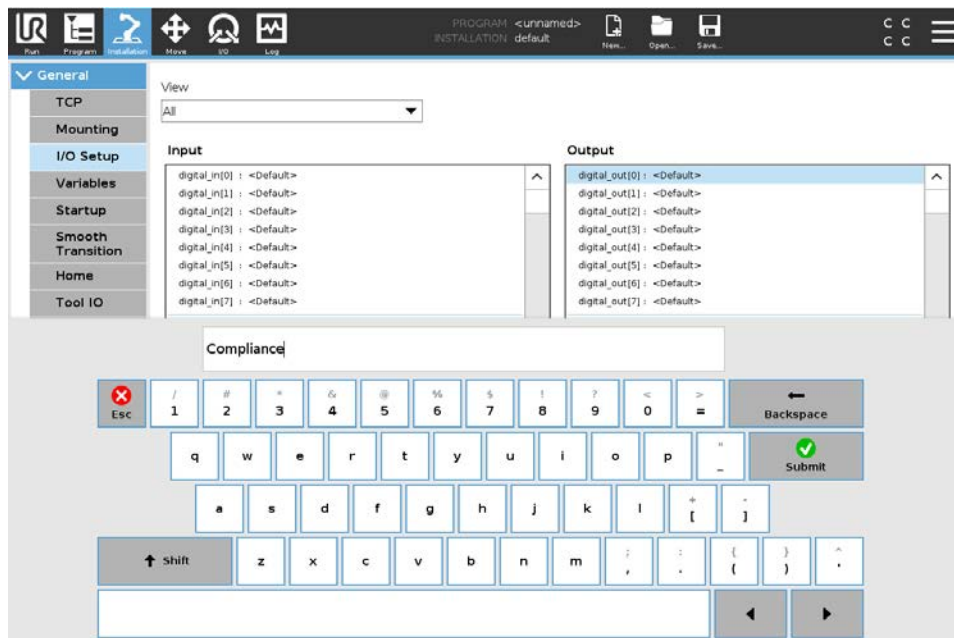
1. Select the **Installation** icon on the header.
2. Select the **General** tab.
3. Select **I/O Setup** from the **General** tab drop-down menu.
4. Select the signal **Output** to rename.

Figure 5.14—I/O Setup



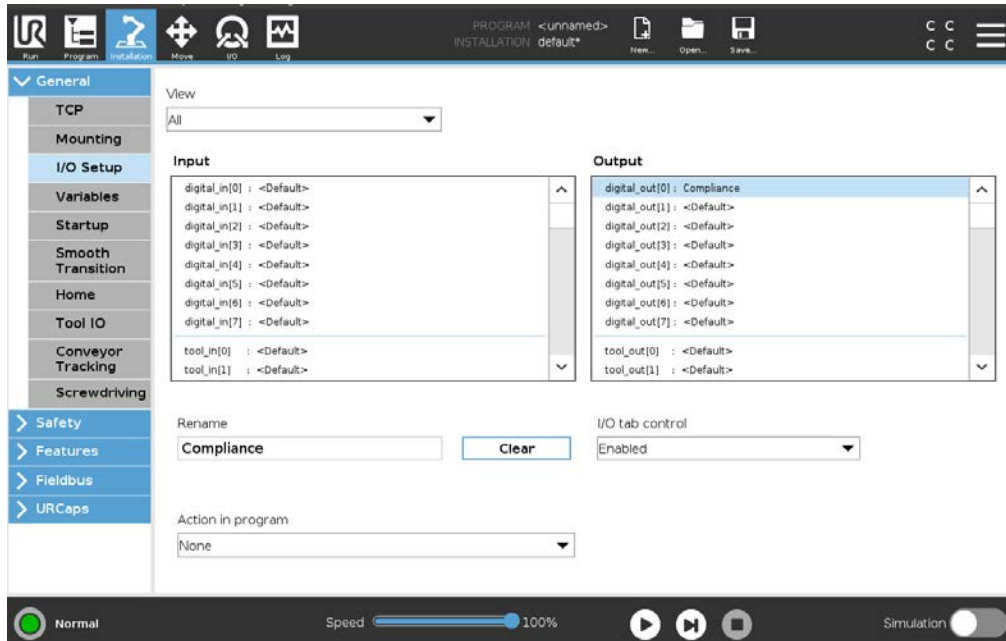
5. Type the new name on the keyboard, and select **Submit**.

Figure 5.15—Rename the Digital Outputs



6. The renamed **Output** signal appears next to the default signal name.

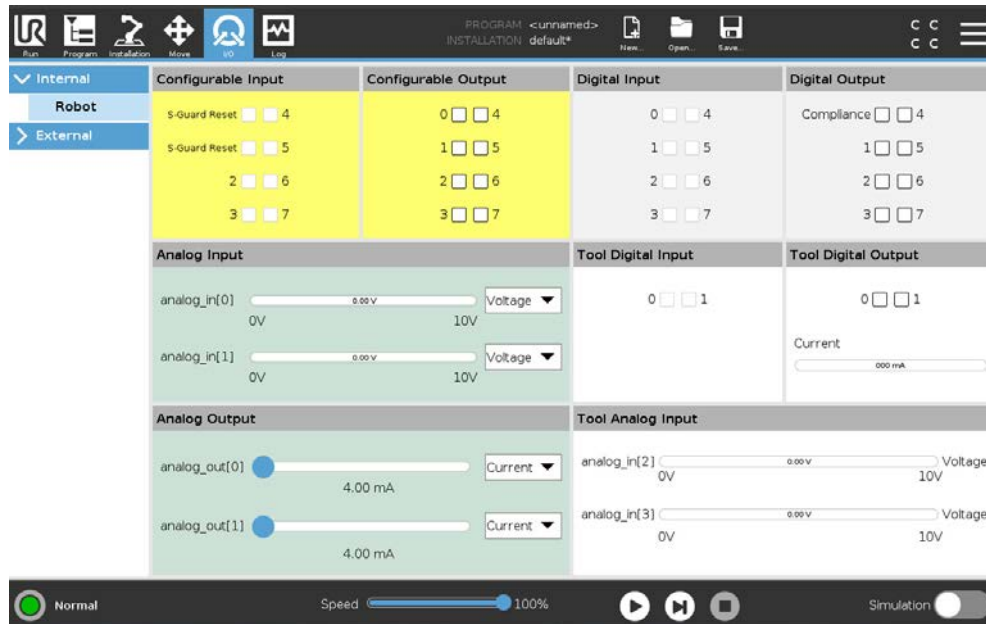
Figure 5.16—Rename the Digital Input and Outputs



Note: To reset an **Output** signal back to the default name, select the renamed signal, and press the **Clear** button.

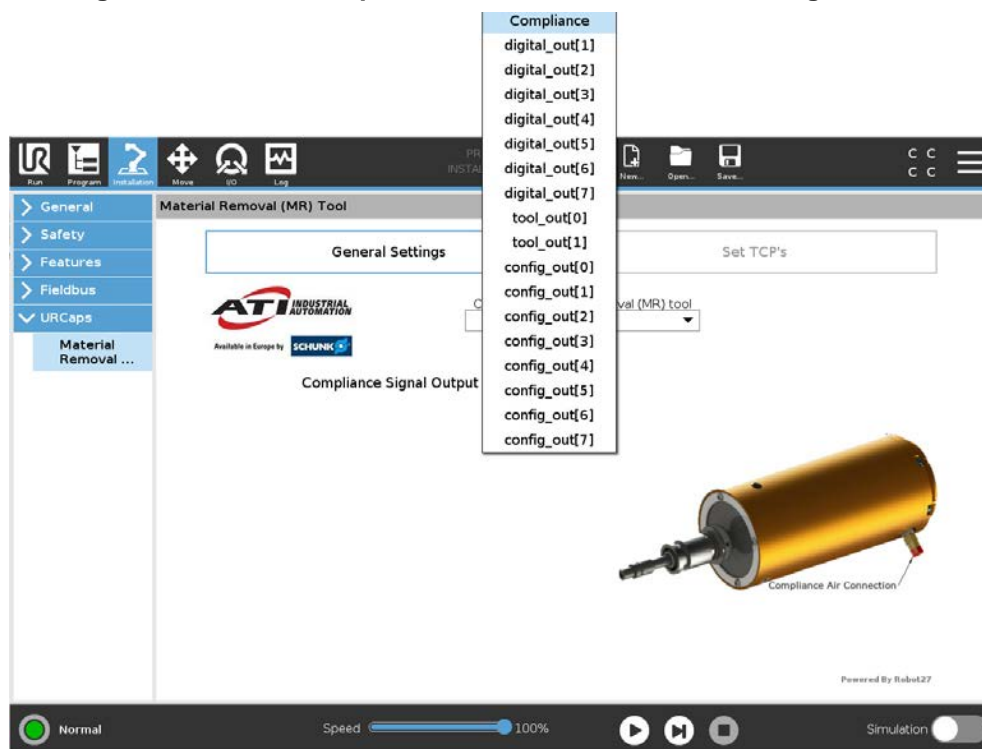
7. (Optional) Select the **I/O** icon from the header, and note that the renamed **Output** signal appears on the **I/O** screen.

Figure 5.17—Updated Output on the I/O Screen



8. From **Installation**, select the **URCap** tab and then **Material Removal**.
9. Press the **General Settings** button.
10. From the **Output** signal drop-down menu, select the applicable renamed signal.

Figure 5.18—ATI URCaps Material Removal General Settings Screen



6. Troubleshooting the ATI URCap Software

Customer service is available to users who have problems or questions.

Note:

Please read the manual before calling customer service and have the following information available:

1. Material Removal tool model (for example: CDB or 9150-CDB-8-11-000)
2. Accurate and complete description of the question or problem.
3. Computer and software information (operating system, PC type, drivers, application software, and other relevant information about the application's configuration)

Be near the system when calling (if possible).

For additional troubleshooting assistance or to speak with a customer service representative, please contact ATI:

ATI Industrial Automation

1031 Goodworth Drive

Apex, NC 27539 USA

www.ati-ia.com

Tel: +1.919.772.0115

Fax: +1.919.772.8259

Application Engineering

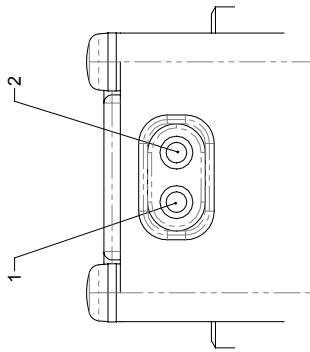
Tel: +1.919.772.0115

Fax: +1.919.772.8259

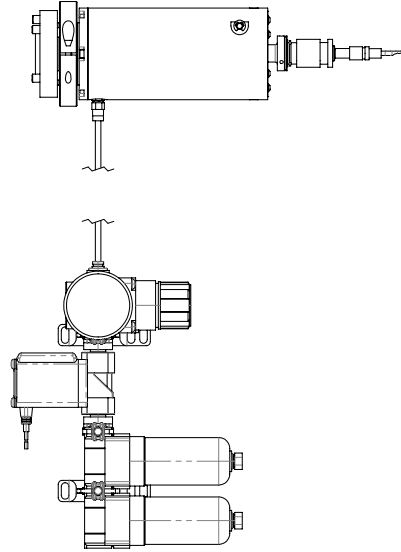
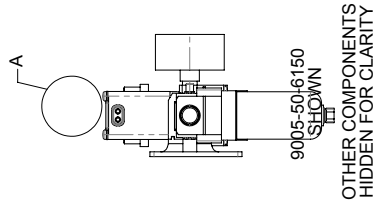
E-mail: ApplicationsEngineers@ati-ia.com

Table 1: Solenoid Wiring

9005-50-6150		
Lead Wires	2 Port Solenoid Valve	Signal
300mm Black 20 AWG	1	24 VDC (+)
300mm Red 20 AWG	2	24 VDC (-)



DETAIL A
SCALE 2 : 1



NOTES: UNLESS OTHERWISE SPECIFIED,
DO NOT SCALE DRAWING.
ALL DIMENSIONS ARE IN MILLIMETERS.



1031 Goodworth Drive, Apex, NC 27539, USA
Tel: +1.919.772.0115 www.ati-ia.com
Fax: +1.919.772.8259 ISO 9001 Registered Company
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DRAWN BY: D. Boile 9/30/2019

CHECKED BY: B. Rose 11/1/2019

B. Murphy 11/1/2019

PROJECT # 190927-1

SHEET 2 OF 2

TITLE
CDB Kit for UR

SCALE
1:3

SIZE
B

DRAWING NUMBER
9640-50-1027

REVISION
02

8. Terms and Conditions of Sale

ATI warrants the compliant tool product will be free from defects in design, materials, and workmanship for a period of one (1) year from the date of shipment. This warranty is offered only when the product is used in compliance with manufacturer's specified normal operating conditions. This warranty does not extend to tool components that are subject to wear and tear under normal usage; including (but not limited to) those components requiring replacement at standard service intervals.

The warranty period for repairs made under an RMA shall be for the duration of the original warranty, or ninety (90) days from the date of repaired product shipment, whichever is longer. This warranty is void if the unit is not used in accordance with guidelines presented in this document. ATI will have no liability under this warranty unless: (a) ATI is given written notice of the claimed defect and a description thereof within thirty (30) days after Purchaser discovers the defect and in any event not later than the last day of the warranty period; and (b) the defective item is received by ATI not later ten (10) days after the last day of the warranty period. ATI's entire liability and Purchaser's sole remedy under this warranty is limited to repair or replacement, at ATI's election, of the defective part or item or, at ATI's election, refund of the price paid for the item. The foregoing warranty does not apply to any defect or failure resulting from improper installation, operation, maintenance or repair by anyone other than ATI.