Configuration

Every device connected to the Control Hub (REV-31-1595) will need to be added to the Robot Configuration file before you can use the device in your program. The Robot Configuration will allow you to give your sensors and actuators meaningful names that you can reference while programming.

For this example, we will configure a simple two motor robot drivetrain.



Step

Image

Select the menu on either the Driver Station or Robot Controller. Then select "Configure Robot".



Select "New" in the top left hand corner.

Select "Expansion Hub Portal 1" (embedded).



0

Select "Expansion Hub 1".	Active Configuration: (unsaved) <no config="" set=""> Done Cancel Expansion Hub Portal 1 </no>
	Active Configuration: (unsaved) <no config="" set=""> Done Cancel Expansion Hub 1 Motors Servos Divided Devices</no>
Select "Motors".	PWM Devices Analog Input Devices
	I2C Bus 0
	I2C Bus 1
	I2C Bus 2
	I2C Bus 3

Select the Drop Down menu for "Port 0" then select the motor type attached to the port. In the case of the Minibot in Figure 4, select the "Rev Robotics Core Hex Motor".

Dor	Cancel	
hort	Attached	
0	Nothing -	\leq
	NO DEVICE ATTACHED	
1	Motor name	
1	Nothing -	
	NO DEVICE ATTACHED	
1	Motor name	
2	Nothing -	
	NO DEVICE ATTACHED	
1	Motor name	
3	Nothing -	
	NO DEVICE ATTACHED	
	Motor name	

Press "Enter motor name here" and name the motor "left_drive".

This is the name that you will use when you are programming your robot to control this motor. Always use descriptive names so that you can remember what a device does when you are programming.

Active	Configuration:	(unsaved) <no config="" set=""></no>
Do	ne Cancel	
Port	Attached	
0	REV Robotics HD Hex Motor	-
	Enter motor name here <	
	Motor name	
1	Nothing	-
	NO DEVICE ATTACHED	
	Motor name	
2	Nothing	-
	NO DEVICE ATTACHED	
	Motor name	
3	Nothing	-
	NO DEVICE ATTACHED	
	Motor name	

ctive C	configuration:	(unsaved) <no config="" set=""></no>
Dor	Cancel	
Port	Attached	
0	REV Robotics Core Hex Motor	
	left_drive	
	Motor name	
1	REV Robotics Core Hex Motor 🛛 👻	
	right_drive	
1	Motor name	
2	Nothing -	
	NO DEVICE ATTACHED	
	Motor name	
3	Nothing -	
	NO DEVICE ATTACHED	
1	Motor name	

Repeat the process for "Port 1" and name the motor "right_drive".

Press "Done" once to go back to the list of device ports and then select I2C Bus 0.

Expansion Hub 1 Motors Servos Digital Devices PWM Devices Analog Input Devices 12C Bus 0 12C Bus 1 12C Bus 2 12C Bus 3	tive Configuration:	(unsaved) serve
Expansion Hub I Motors Servos Digital Devices PWM Devices Analog Input Devices I2C Bus 0 I2C Bus 1 I2C Bus 2 I2C Bus 3	Done Cancel	
Motors Servos Digital Devices PWM Devices Analog Input Devices 12C Bus 0 12C Bus 1 12C Bus 2 12C Bus 3	Expansion Hub 1	,
Servos Digital Devices PWM Devices Analog Input Devices 12C Bus 0 12C Bus 1 12C Bus 2 12C Bus 3	Motors	
Digital Devices PWM Devices Analog Input Devices I2C Bus 0 I2C Bus 1 I2C Bus 2 I2C Bus 3	Servos	
PWM Devices Analog Input Devices I2C Bus 0 I2C Bus 2 I2C Bus 3	Digital Devices	
Analog Input Devices I2C Bus 0 I2C Bus 1 I2C Bus 2 I2C Bus 3	PWM Devices	
I2C Bus 0 I2C Bus 1 I2C Bus 2 I2C Bus 3	Analog Input Devices	
I2C Bus 1 I2C Bus 2 I2C Bus 3	I2C Bus 0	
I2C Bus 2 I2C Bus 3	I2C Bus 1	
I2C Bus 3	I2C Bus 2	
	I2C Bus 3	

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-		
Do	one Cancel Add	
Port	t Attached	
0	REV Expansion Hub IMU 🛛 🗸	
	mu	
	Device name	

Add the built-in REV Expansion Hub IMU. Name it "imu"

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Press the "Done" button (at the top left corner of the page) 3 times.

	Active Configuration:	(unsaved) «No Config Set»
Done Add	Dove C	
Port Attached	Examples High 1	
0 REV Expansion Hub IMU •	Motors	
mu	Servos	Active Configuration. (unsaved) -N
Device name	Digital Devices	
	PWM Devices	Expansion Hub Portal 1 (embedded)
	Analog Input Devices	Expansion Hub 1
	I2C Bus 0	
	12C Bus 1	
	I2C Bus 2	
	I2C Bus 3	

Active Configuration: (unsaved)

 Save
 Scan
 Image: Configuration in the persistently save the current configuration in the Scan' button to rescan for attached devices

 USB Devices in configuration:
 Image: Configuration in the Scan' button to rescan for attached devices

 USB Devices in configuration:
 Image: Configuration in the Scan' button to rescan for attached devices

 USB Devices in configuration:
 Image: Configuration in the Scan' button to rescan for attached devices

 Expansion Hub Portal 1 (embedded)
 Image: Configuration in the Scan' button to rescan for attached devices

Press "Save".

Enter "miniBot" as your configuration name, then select "OK".

Active Configuration:	(unsaved) <no config="" set=""></no>
Save Cancel Scan	0
Press the 'Save' button to persistently save the Press the 'Soan' button to rescan for attached	e current configuration devices
USB Devices in configuration:	0
Expansion Hub Portal 1	
Save Configuration	
Please enter a name for the robo	ot configuration.
miniBot	
Cancel	∞ <

You now have an active configuration called "miniBot". Press the Android back button to return to the Driver Station page.

Active Configuration:		🗩 miniBot
New		
Available configurations:		0
miniBot		
Edit Activate Delete		
Configure from Template		0
$\Box \land$	0	