Bartendro™   B7

Getting Started Guide

Model Number:
B007V1

KICKSTARTER EDITION

Thanks for backing us!

Please read this guide before
operating your Bartendro™ Cocktail Bot

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Congratulations!

You are one of the first owners of the latest in cocktail dispensing technology. Bartendro™ Cocktail Bots and Dispensers pour a variety of liquids precisely, and you can control them from phones or tablets. Whether you set up your bot to host a party, or use it for mixing flavored syrups into sno-cones, it will be sure to liven things up. What applications will you come up with? Please share your projects at:

http://partyrobotics.com/forums/forum/sharing/

⚠ Important Precautions

- Do not use Bartendro or its components for medical or life-critical applications.
- **Avoid touching electronics when possible. The electronics in Bartendro may be damaged by static electricity, the sort your hands can pick up from shuffling your feet across the carpet. If you need to touch them, make sure to first discharge yourself by touching something metal connected to ground like a faucet or metal appliance.**
- Plugging and unplugging dispensers while the system is powered may cause permanent damage to your Bartendro.
- Powering the Router board without the Raspberry Pi and dispensers plugged in may cause permanent damage.
- Plug networking devices into the port available on the back of your Bartendro. Plugging them into any other RJ45 connector on the Router Board will cause damage.
- It is not recommended to keep clear tubing immersed in liquid for extended periods of time. Doing so may cause discoloration, or cause mold to form.
- You may need to periodically recalibrate the dispensers as the tubing wears. See www.partyrobotics.com/docs/ for instructions.
- If storing Bartendro for more than several weeks without use, we recommend removing the beige tubing from the dispensers to extend tube life. See www.partyrobotics.com/docs/ for instructions.
- Please drink and use responsibly.

You will need

Phillips screwdriver

Device with web browser (phone, tablet, laptop, etc.)

Wired Networking Router (for software updates)

Computer (for software updates)

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Bartendro™ B7 Contents

What's Included

A	Left Side of Frame
B	Right Side of Frame
C	Frame Back
D	Frame Foot
E	Frame Front
F	Housing
G	24V, 200W Power Supply with AC Power Cord
H	Alcohol Pad
I	Wire Clips (4)
J	Dispenser Compression Nuts (14)
K	Hole Plugs (4)
L	Screws (4)
M	Chopstick (tubing replacement tool)
N	Level Sensor Tubing Adapters (7)
O	Level Sensor Tubing Keepers (7)
P	Bottle Topper Caps (7)
Q	Various Bottle Toppers (7)
R	Tubing (7 Input, 7 Output, 7 Sensor)

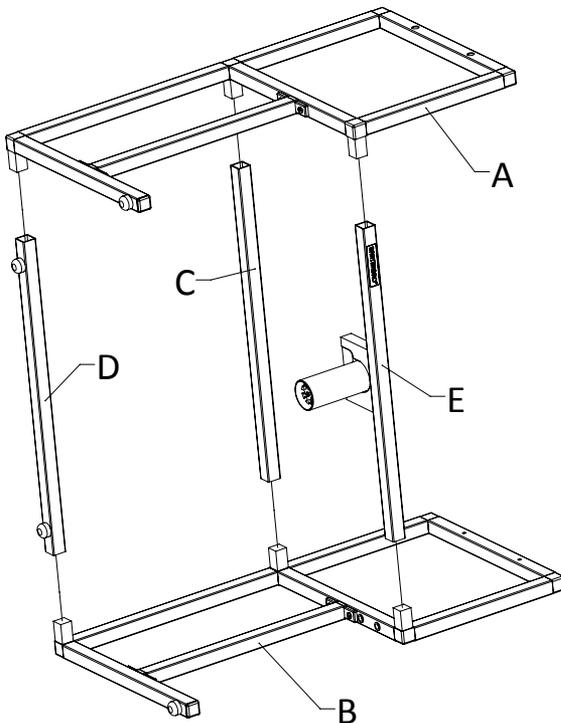# Bartendro™   **B7**

Assembly Instructions

Step 1
Assemble Frame

Place the right side of the frame (B) against a solid surface which will not scratch the metal.

Press the frame foot (D), back (C) and front (E) pieces into the fittings on the right side (B). Note the location and orientation of each piece seen below. If the pieces do not slide all the way down onto the fittings you may tap them in with a rubber mallet.

Press the left side of the frame (A) onto the pieces (C, D and E) until there are no gaps in the joints. Clean up any plastic shavings that are created.
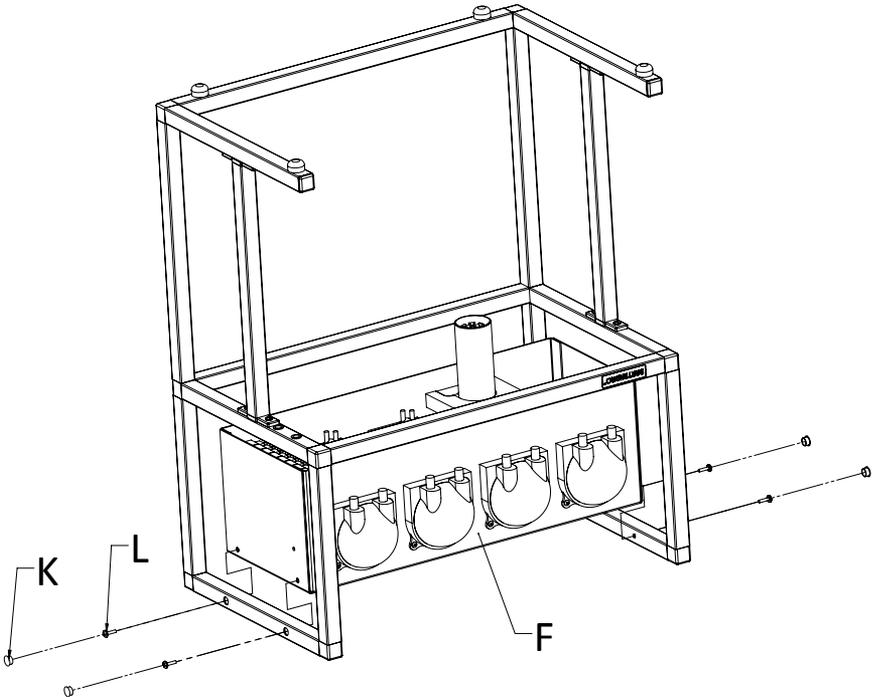
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Step 2
Attach Housing to Frame

Place the completed frame upside-down onto a smooth, flat surface and place the housing in-between the frame as seen below.

Line up the 4 holes in the frame with the holes in the housing.

Attach the frame to the housing (F) using the screws (L) and a Phillips screwdriver.

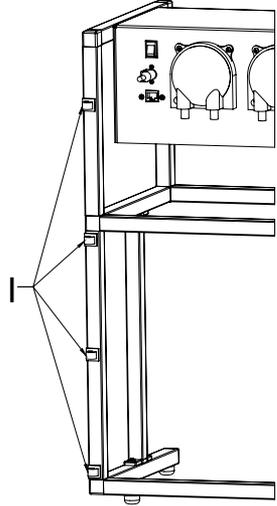Once the screws are tightened firmly, use the plugs (K) to cover the open holes.

Step 3
Attach Wire Clips (optional)

We've included some adhesive wire clips (I) to keep the power supply cable neatly tucked behind the frame.

Use the alcohol pad to clean the surface before you apply the clips so that they stick well.

Remove the backing, and attach where desired. You may use as many or as few as you like.

I

Step 4
Plug in and Power On

Important: Before plugging the power supply into your bot, make sure the power switch is off. Plug the 4 pin connector into the bot first, then plug the AC power cord into a wall outlet. Turn the switch on and Bartendro will take approximately 1 minute to boot up.
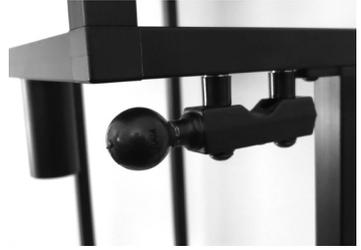
Note: If the power supply experiences a fault while plugged in, its green light will turn off. Reset by unplugging it from the wall and plugging back in.

Bartendro is ready when the dispenser's lights begin to fade in and out, changing color.

The status light on the right side of the bot will also turn green. This light will also serve to notify you when ingredients are low or out when the liquid sensors are enabled.

Note: Tablet Mounting (optional)
There are two holes on the right side of
the frame designed to fit RAM-B-309-1
from www.rammount.com. This part is not
included, and if you use it, you will also need
to get an arm and specific cradle for your
device.

Step 5
Install Input Tubing

Find the bags labeled "Input Tubing for
Front Row" and "Input Tubing for Back
Row."

Feed the flat ends of these tubes through
7 compression nuts (K). Make sure the end
of each tube sticks out of the nut by about
1/4" on the side of the nut that says ">PP<"
on it.

K

If it's hard to feed the tubing through the
opening, try using the chopstick to widen it.

Turn each tube with compression nut
onto the right (input) port of each
dispenser until it is finger tight. You
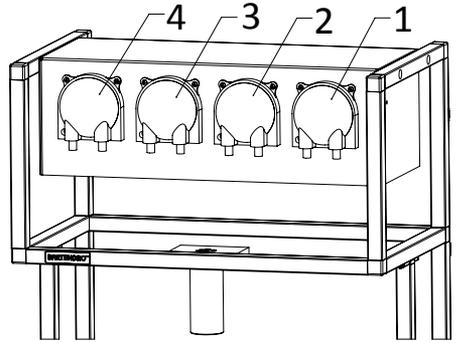should only see one or two threads
remaining.

Output   Input

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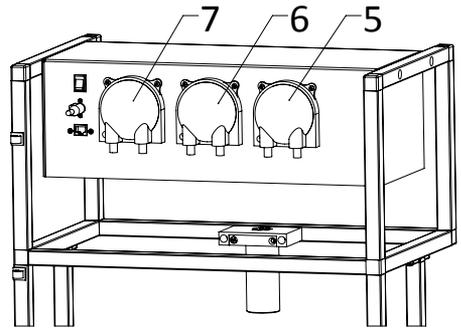
Step 6
Install Output Tubing

Repeat step 5 for the tubing labeled "Output Tubing", this time install the tubes onto the left (output) port of each of dispenser.

Each piece of tubing is a unique length and has a number on its bag that should be matched with the dispenser of the same number.

When you load ingredients into the software interface at a later step, these are the dispenser numbers that will be referred to.
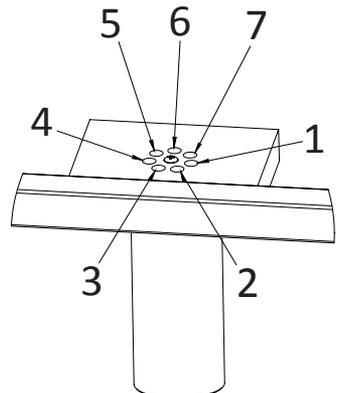
Front View

Back View

Step 7
Route Output Tubing

Route each output tube from its dispenser to the corresponding hole in the spout bracket and push the tubing downward an inch or two.
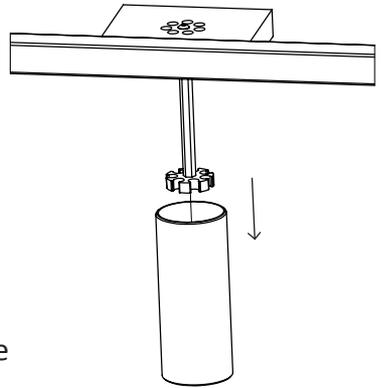
Step 8
Spout Fine Tuning

Remove the spout by pulling straight down on it. Take care to not move it sideways before reaching the bottom of the tubing separator or you may cause damage.
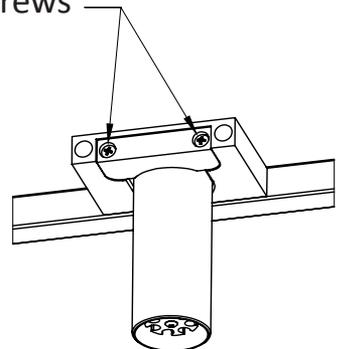
Pull the tubes from the spout bracket straight down so that they go through the lower tubing separator.

The tubes should protrude from the bottom by about 1/4".

Return the spout by pushing it straight up into the bracket. Tighten or loosen the grip on the spout by adjusting the two screws.
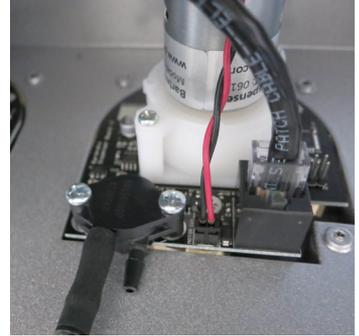
Adjustment Screws

Step 9
Install Sensor Tubing (optional)

Find the tubing labeled "Sensor Tubing for Front Row" and "Sensor Tubing for Back Row".

Install the clear tubing into the barbed fitting of each Level Sensor Tubing Adapter (N).

Install the open end of the adapter (N) to the left sensor port of each dispenser.

Liquid sensors can be enabled/disabled in the Admin Menu.

Step 10
Attach Bottle Toppers and Sensor Tubing Keepers (optional)

Bottle Toppers (Q) and their Caps (P) are meant to keep fruit flies and dust out of your bottles.

The Bottle Topper Caps (P) have cutouts so that you can pass tubing through them. One for the input tube and one for the sensor tube.

Pass the tubing through (P) and (Q) first, then you can pass them through the Tubing Keepers (O). Space the tubing keeper about 1 inch from the bottom of the tubes.

Step 11
Insert Tubing into Bottles

Insert each dispenser's input tube (with or without sensor tube) into an opened bottle until the tube(s) reach the bottom.

If using Bottle Toppers, press them down into the neck of the bottle until they are snug and snap the Bottle Topper Caps onto them.

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Connect to Bartendro

Find Network and Connect
Using a WiFi-enabled device, find the "bartendro" WiFi network by looking for it in your settings, and connect to it. The first time you connect may take as long as 30 seconds to establish the connection.

Open Browser
iPhones and iPads will automatically display the Bartendro user interface (UI) soon after they connect to the Bartendro network. Users of Android and other devices will need to go to a web browser, like Chrome, type in any web address, and they will automatically be redirected to the Bartendro UI.

For Windows 7 users, if Bartendro is turned on and your computer is connected to the Bartendro network, but the browser does not load the page, you may need to change the following setting:
- Click **Start** (bottom left corner).
- Type "**network connections**" and hit enter**.**
- Right-click on **Wireless Network Connection** and select properties.
- Select **Internet Protocol Version 4** and click the properties button.
- Make sure "obtain DNS server address automatically" is selected.

Pour a Drink!

The main menu will display the drinks available to be served based on the ingredients selected for each dispenser. Each drink name is a button that you can press to select your drink. Once selected, you can make adjustments before pouring. Some drinks have different adjustment options depending on their ingredients.

The first time you dispense, you will not get a precise drink because the tubing still has air in it. You should go to **Admin > dispensers** and turn on each dispenser until each tube has no air left in it. Don't forget to put a glass under the spout.

To change the menu, create new drinks or modify your settings, you must log into the admin menu.

Getting to the Admin Menu

To get to the Admin menu, find the hidden link at the bottom left corner of the main menu, or type "bartendro/admin" in the address bar of your browser.

When prompted use the default:
      Name: bartendro
      Password: boozemeup

Note: You can change the login name and password by going to **Admin > options.**

Admin

menu: This takes you to the main menu where drinks can be poured.

dispensers: Select the ingredients you have loaded into Bartendro here. You can control the dispensers manually by pressing the "turn on" or "dispense 10mL" buttons (useful for removing air from tubes). Add more ingredients in **Admin > booze**.

drinks: Create or modify existing drink recipes by selecting ingredients and their proportions. An ingredient's number of parts is rounded to whole numbers. You must click "save" for changes to take effect.

booze: Edit and create your ingredients in this section. What you save here will be displayed in the pull-down menu in **Admin > dispensers**.

options: Customize your settings by enabling or disabling many features here, including liquid level sensors and shot mode. Follow the instructions on-screen to make your selections. Your database file stores your settings and saved booze information. You can download this file and restore from it after a software update.

liquid level (if enabled)**:** Calibrate the low and out threshold of the liquid level sensors by following the on-screen instructions.

debug: Use this tab if Bartendro is mis-behaving. You can see the communications logs and test dispenser connectivity. You will likely need to reference this tab if requesting support.

Cleaning and Maintenance

For longest tube life, you should clean all of Bartendro's tubing after every use.

Step 1
You will need three containers. Fill one with hot soapy water, one with clean water, and keep one empty for collecting discarded liquids.

Step 2
Go to **Admin > dispensers**, lift input tubing out of each bottle and use the "turn on" button to pump the liquid remaining in the tubes into your discard container. Repeat for each dispenser.

Step 3
Place the drained tubes in your container of hot soapy water and press the "clean" button with your discard container under the spout. The button is located at the bottom of **Admin > dispensers.** This will run the dispenser long enough to wash out the tubes. Wipe down the outside of the tubing, tubing keepers and bottle toppers (if you are using them) while they are in the soapy water.

Step 4
Repeat step 3 but with the container of clean water. Make sure to rinse the outside of the tubing as well. Sanitizing solutions like Star San (beer brewing sanitizer) may also be used. Do not use household chemicals.

Step 5
Finally, remove the tubes from the clean water and press the "clean" or "turn on" button once more to empty the clean water from the tubing and prepare it for its next use.

You should replace the inner beige dispenser tubing after 500 hours of use (actual rotation time). If you plan on not using the bot for over one month, you should remove the beige tubing from the pump-head. Instructions on doing this can be found at www.partyrobotics.com/docs.

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Troubleshooting

Dispenser is blue / green / blank after power up

This is normal. The lights will remain in this mode until the Bartendro is booted and establishes a proper connection with the dispensers (which takes about one minute). If after a minute the lights don't begin fading in and out, make sure the SD card is inserted properly.

Dispenser is flashing red

The dispenser has been over-worked and has been shut off to prevent damage. Check tubes for blockage and press the "reset" button under **Admin > dispensers** when they look clear. This will restore the dispenser to proper operation.

Air bubbles in tubes, or dripping

This is a sealing issue. You can try tightening the compression nuts first to see if they were just too loose. There should only be one or two threads visible. If that doesn't fix it, then the tubing might not be protruding all the way through the compression nut (see page 5 for reference).

Main Menu doesn't allow me to pour a drink

Check to make sure there are ingredients selected and saved under **Admin > dispensers**. Make sure either level sensor tubes are properly connected and submerged in liquid, or that liquid level sensors are disabled in **Admin > options**. Also, make sure there is a drink which can be made with your selected ingredients and that the "List this drink in the menu" option is selected in **Admin > drinks** for that drink.

Getting Under the Hood — Advanced Users

If you know how to SSH into a machine and want to modify the behavior of your bot, you can do that by plugging an ethernet cable from Bartendro's Raspberry Pi into a wired networking router (wireless is disabled for security). Once connected, the credentials are:

    login as: bartendro
    password: hackme!

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Having Issues?

If you didn't find what you were looking for in this manual, try some of these options:

- Search the forums at www.partyrobotics.com/forums. We encourage you to post your questions so that others may learn from them.

- Check for up-to-date videos, manuals, and other guides at: www.partyrobotics.com/docs

- Email Us: support@partyrobotics.com

Maker Warranty:

We're here for you! If you have made modifications to your hardware or software and are having technical issues, we will be glad to attempt to resolve them with you. If an item was damaged in shipping, or is otherwise defective or malfunctioning, please email us right away and we will do our best to make things right on a case-by-case basis.