Installing the Litter-Robot 4 Wire Harness

Learn how to replace the Litter-Robot 4 Wire Harness.

What you'll need:

- Phillips-head screwdriver
- Flashlight
- Needle-nose pliers or tweezers
- Small flathead screwdriver

Steps

Disassemble the unit

1. Make sure the unit is in the Home/Ready position. Press the Power button to turn the unit off, then unplug the unit.
2. Remove the bonnet:
    a. Press and hold the latches on both sides of the bonnet, then lift and rotate the bonnet to its open position.
    b. Unlatch the center tab on the bonnet from the catch clip on the unit frame behind the robot. Set the bonnet aside.
3. Remove the globe: Grab the black handle located on top of the globe, lift the globe off the base, and set it on the floor.
4. Remove the waste drawer from the base and set aside.

Note: Taking photos of disassembly is recommended to assist in reassembly.

Remove the old wire harness

1. Place the unit facedown (bezel down) on a solid, flat surface. Use a magnetized screwdriver and/or tips for ease of screw removal:
    a. Remove the ten (10) screws from the black bridge (what the bezel is attached to).
    b. Remove the four (4) screws behind the seal strips attached to the bezel (the top of the bezel as it is presently situated).
2. Tip the unit upright. With a hand on the drawer opening of the base, carefully pull out on one side of the bezel to begin separation from the bridge. Now pull out on the other side and remove the bezel completely.
3. Below the control panel, see the main printed circuit board (PCB) and the beige main connector on the bottom right of the PCB. The release is on the harness end of the connector. Grab firmly, press the tab to release, and pull.
4. Remove the bridge:
    a. The two (2) forward screws are readily visible.

    b. The two (2) rear screws must be accessed through a porthole above the screw. Use a flashlight to locate. Remove the rear screws first, then remove the bridge and set aside.
5. Next remove the eleven (11) screws in the upper base / bulkhead (grey area below where the globe rests and behind the bezel).
    a. Three (3) screws immediately behind the bezel
    b. Two (2) screws in the recess just forward of the waste port (1 left and 1 right)
    c. Four (4) screws above the motor gear area
    d. Two (2) screws in the holes just forward of the bonnet hinge (1 left and 1 right)
6. Find the plug that attaches the weight scale to the main harness. It's located in the back of the drawer area and the plug comes down from the bulkhead. Depress the release and separate.
7. Remove the unit powerjack located in the rear of the base next to the weight scale harness. Use a small flathead screwdriver and gently lift the tension rib to release the unit powerjack.
8. Carefully lift the upper base off of the lower base and place on a solid, flat surface.
9. Remove the single screw from the drawer presence sensor cover.
10. Use needle-nose pliers or tweezers, or pop out the sensor to release from the harness. Replace the sensor and cover so as not to misplace.
11. Feed the main harness connector down through the opening in the bulkhead that it comes from.
12. On the same side of the bulkhead, behind mid-center, find the black/purple wires that work along the side ribs and around to the back of the upper base, removing wires from the ribs along the way.
    a. Follow along the rear to the hopper powerjack. Pry open the cut to pull the hopper powerjack upward.
13. With the white sprocket gear end of the upper base closest to you, remove the four (4) screws from the motor cover and then remove the cover.
    a. Pull the black/red wires from the tension ribs and feed through the hole to the front left of the motor.
    b. Place your thumb on the front corner of the circuit board and unplug the harness terminal from the board.
    c. Now squeeze the clip on a beige connector with black/red wires leading from the motor. Release from the tension ribs and feed through the hole.
14. Place the cover back over the motor and replace a couple of screws to hold it in place.
15. With the motor cover area still in front of you, find two (2) green wires that attach to a switch in the left side of the upper base, held in place by the position screw. This is the pinch sensor.
    a. Remove the screw and the sensor, then replace the screw.
    b. Now repeat with the sensor on the other side.

Install the new wire harness

1. Insert the beige connector with the red/black motor leads also through the hole in front of the motor recess. Be sure the weight scale plug remains on the bottom side of the upper base.
    a. Plug the connector into the circuit board and the red/black wire connectors together.
    b. Pull the red/black battery wire through and insert it into the ribs behind the motor. Tape them down in the battery recess. Replace the cover and four (4) screws.
2. Insert the harness into the first tension rib left of the access port. Use the zip tie on the right side of the rib, and use the tape labeled “#4” on the left side of the rib.
3. Re-install the pinch sensor with the two (2) green wires. Be sure the switch is on top and inserts into the hole below the screw. Depress the pinch bar and make sure it clicks.
4. Insert the purple/black wires into the ribs along the rear of the bulkhead and replace the hopper powerjack.
5. Insert the main PCB connector through the opening in the bulkhead.
    a. From this opening, run the green, black, orange, and purple wires to the rib ahead of the waste port.
6. Remove the drawer presence sensor cover and reconnect the sensor to the harness. Replace the cover and reinstall the single screw.
7. Place the green/black wires in the tension rib and re-install the pinch sensor. Check to be sure it clicks when the pinch bar is depressed.
8. Replace the unit powerjack. Notice the powerjack is rectangular: Place the long side down, and slide it into place under the tension rib.
9. Re-plug the weight scale harness.
10. Replace the upper base back onto the lower base while minding the ten (10) location ribs for correct positioning.
11. Replace the eleven (11) screws to re-affix the upper base to the lower base.
12. Remount the bridge to the upper base.
13. Reconnect the harness to the main PCB.
14. Replace the bezel and place the unit facedown, bezel on a solid surface. Then replace the fourteen (14) screws into the bridge and bulkhead.

Reassemble the unit

1. Place the reassembled base and bezel rightside up.
2. Replace the globe: Hold the globe by the black handle and set it onto the base. When replacing the globe, try to place the two liner “fingers” in the center of the bezel (as seen from above) in order to be close to the Home/Ready position.
3. Ensure the back of the globe is sitting flush in the rear bearing pocket: The large black gear on the rear of the globe will line up with the small white gear in the base.
4. Replace the bonnet:
    a. Latch the center tab on the bonnet into the catch clip on the unit frame behind the robot.

    b. Rotate the bonnet downward over the globe and push down on the bonnet from the top to make sure it is latched and secure.
5. Slide the waste drawer back into the base.
6. Plug the unit in and power it on.