

# CONTENTS

Parts Diagram	3
HandyBot Parts & Supplies:	3
Welcome	4
Register Now	4
Getting Started	4
System Requirements	4
Initial Setup	4
Control Panel	4
Outdoor Tasks	5
Initial Outdoor Setup	5
Quick Start for Outdoor Tasks	5
Advanced Outdoor Settings	5
Custom Mowing with Edging Option	5
Custom Watering with Fertilizing Option	5
Indoor Tasks	6
Quick Start for Indoor Tasks	6
Advanced Indoor Settings	6
Custom Shampooing & Mopping	6
Custom Vacuuming	6
Scheduling Tasks	6
Maintenance	7
Battery Charging	7
Detailed Instructions for Self-Clean & Water Refill	7
HandyBot Maintenance Chart	8
Warranty Information	9
Frequently Asked Questions	9
Conclusion	9
Index	

This document was completed as the final requirement for the Fundamentals of Technical Writing course at Bellevue College, Summer, 2013.

# PARTS DIAGRAM





# HANDYBOT PARTS & SUPPLIES:

# NOTES ON USE:

Upper Sensor Array & Multi-Color Alert Strobe	flashes to indicate errors or maintenance	
Control Panel (removable)	controls HandyBot's tasks and displays information	
Super Sprinkler (removable)	waters efficiently and distribute fertilizer	
Docking Port with 4 ft Power Cord	charges and stores HandyBot	
Telescoping Shoulders	keep HandyBot stable	
Fertilizer Storage	stores fertilizer	
Water Input Valve	attaches to water hose	
Guard & Lower Sensor Array	senses obstacles	
Cleaner Tank (located underneath)	stores cleaning fluid (not shown on diagram)	
High Efficiency Particulate Air (HEPA) Filter	captures dust during indoor tasks	
HandyBot Performance Plus Oil, 12 oz bottle	lubricates HandyBot's moving parts	
HandyBot Concentrated Fertilizer: Lawn & Plants	refills Fertilizer Storage and nourishes lawn & garden	
Boundary Wire, 6000 ft	marks perimeters of tasks	

# WELCOME

Thank you for choosing HandyBot. This manual contains instructions for safe and efficient HandyBot use. Let this information be your guide to spending less time on chores around your home. Please take a moment to become a registered HandyBot user. Registration activates your warranty and gives you access to additional HandyBot tasks.

REGISTER NOW www.HandyBot.com/register

# **GETTING STARTED**

Start here for first-time operation. Refer to the parts shown in Figure 1 as you learn to use HandyBot.

### System Requirements

- ✓ Docking Port area, at least 24 by 24 in., sheltered from rain with unobstructed access (Recommended DP areas include garages, patios, laundry rooms, and mud rooms.)
- ✓ 120 volt receptacle within 4 ft of DP
- ✓ Draining area, a surface that can accommodate water mixed with grass clippings and vacuum waste (A yard, plant bed, or sewage drain is ideal.)
- ✓ Water hose, long enough to reach the draining area while attached to a water supply

#### **INITIAL SETUP**

HandyBot comes fully assembled, charged, and prefilled for fast setup. Follow these steps for first-time use:

- 1. Remove HandyBot and its docking port from the packing box.
- 2. Place HandyBot upright in the selected DP area.
- 3. Plug the DP into the selected 120 V receptacle.
- 4. Power-on by pressing the Stop/Resume button on the HandyBot Control Panel: (b).

### **CONTROL PANEL**

HandyBot has a removable Control Panel, Figure 2. To use, firmly press buttons in order as this manual shows.



FIGURE 2 - HANDYBOT CONTROL PANEL IN MAIN MENU MODE

# **OUTDOOR TASKS**

HandyBot cares for your yard with:

- Boundary wire installed on the ground for safe and accurate perimeters
- Sharp blades that mow grass to the desired height
- Outdoor wheels that easily move over most terrain
- Precise edging options while mowing that reach beyond the wheels
- Super Sprinkler that does the work of many sprinklers and drippers
- Fertilizer that can be applied while watering and selected by plant type

# INITIAL OUTDOOR SETUP

- 1. Attach the boundary wire firmly to the ground on HandyBot's outdoor perimeter.
- 2. Move HandyBot inside the boundary wire.
- 3. For watering and fertilizing, connect the SS to front ring as shown in Figure 1.

# QUICK START FOR OUTDOOR TASKS

- 1. OPower-on by pressing the Stop/Resume button on the HandyBot Control Panel.
- 2. Press> B-outdoor to reach the Outdoor Menu from the Main Menu.
- 3. Select> A-mowing, B-weeding, or C-watering from the Outdoor Menu.
- 4. Press> ENTER to select task and view the Task Schedule Menu.
- 5. Press> A-now on the Task Schedule Menu.
- 6. Press> ENTER: The selected outdoor task will begin immediately.

## Advanced Outdoor Settings

CUSTOM MOWING WITH EDGING OPTION

- 1. Press> MENU> B-outdoor to view the Outdoor Menu.
- 2. Hold down A-mowing with the MENU key to display the Custom Mowing Options.
- 3. Select >A-1in., B-1  $\frac{1}{2}$  in., or C-2 in. to adjust the desired lawn height.
- 4. Press> D to switch between EDGING ON and EDGING OFF.
- 5. Press> ENTER: Your selections will become the default mowing settings.

### CUSTOM WATERING WITH FERTILIZING OPTION

- 1. Press> MENU> B-outdoor to view the Outdoor Menu.
- 2. Hold down C-watering with the MENU key to display the Custom Watering Options.
- 3. Select>A-lawn or C-garden or both to customize watering area.
- 4. Press> D to switch between FERTILIZER ON and FERTILIZER OFF.
- 5. Press>ENTER: Your selections will become the default watering settings.



# **INDOOR TASKS**

HandyBot vacuums floors, shampoos carpet, and mops hard surfaces.

#### **QUICK START FOR INDOOR TASKS**

- 1. Setup a task perimeter using the boundary wires.
- 2. Move HandyBot within the perimeter.
- 3. OPower-on by pressing the Stop/Resume button on the HandyBot Control Panel.
- 4. Press> MENU> A-indoor.
- 5. Select> A-vacuuming, B-shampooing, or C-mopping from the Indoor Menu.
- 6. Press>ENTER to select task and view Task Schedule Menu.
- 7. Press>A-now on the Task Schedule Menu.
- 8. Press> ENTER: The selected task will begin immediately.

## **ADVANCED INDOOR SETTINGS**

#### CUSTOM SHAMPOOING & MOPPING

- 1. Press> MENU> A-indoor to view the Indoor Menu.
- 2. Hold down B-shampoo with the MENU key to display the Custom Shampooing Options.
- 3. Select the agitation level> A-gentle, B-normal, or C-heavy duty.
- 4. Press> ENTER: Your selections will become the default settings.

#### CUSTOM VACUUMING

- 1. Press> MENU> A-indoor to view the Indoor Menu.
- 2. Hold down A-vacuuming with the MENU key to display the Custom Vacuuming Options.
- 3. Choose the suction level> A-light, B-normal, or C-heavy duty.
- 4. Press> ENTER: Your selections will become the default vacuuming settings.

# **SCHEDULING TASKS**

After a task is selected in the Indoor, Outdoor, or Maintenance Menu, the Control Panel displays a Schedule Menu. Pressing> D-schedule from the Main Menu also displays the Schedule Menu for the last task viewed. In addition to the Quick Start (>A-now) option used above, HandyBot tasks can be scheduled\* by >B-time and >C-date menus:



FIGURE 3- TIME and DATE SCHEDULE MENUS

\*Visit www.HandyBot.com/schedule for a scheduling tutorial.

# MAINTENANCE

Regular care will ensure that HandyBot performs at its best and lasts for years to come. HandyBot automatically calculates a maintenance schedule based on use and sensors. The strobe flashes when HandyBot's condition, task hours, or task distances indicate that maintenance is required. The control panel displays the recommended maintenance task. Most maintenance tasks include some simple manual steps. Refer to the Maintenance Table on the next page for task details and directions.

#### BATTERY CHARGING

Unlike the tasks in the Maintenance Table, battery charging is part of HandyBot's routine operation. HandyBot can operate for 12 hours on a full charge, but automatically returns to the DP to recharge whenever possible. To extend battery life, HandyBot should connect to the DP for at least of 8 hours per day. When the battery charge is too low to complete a task the strobe will flash and the Control Panel will alert you to allow recharging in the DP.



#### DETAILED INSTRUCTIONS FOR SELF-CLEAN & WATER REFILL

The most common maintenance tasks are Self-Clean and Water Refill. They can be completed together or separately. Both require the following steps:

- 1. Move HandyBot to the selected draining area.
- 2. Secure a water hose to the Water Input Valve.
- 3. Turn the water on. HandyBot automatically stops the flow when the cleaning and/or refill completes.
- 4. power-on >MENU > C-maintenance > A-self clean and/or C-water > ENTER >A-now
- 5. When the Strobe flashes and the Control Panel displays TURN WATER OFF, turn the water source off.
- 6. Slowly detach the hose from HandyBot. Some water may be released in the draining area during this step.

Self-Clean and Water Refill will finish in less than 15 minutes. You do not need to remain nearby. HandyBot can wait for your return when the maintenance is done.



Maintenance Task	What is done?	Preparation	Frequency	Time Needed	Instructions
Self-Clean	Removes debris from interior systems & cleans outdoor wheels	<ol> <li>Move to DA</li> <li>Attach hose</li> <li>Turn water on</li> </ol>	Weekly or as needed	10 min.	After completing preparation steps*: MENU> C-maintenance> A-self-clean >ENTER>A-now
Water Refill	Provides water for HandyBot tasks	<ol> <li>Move to DA</li> <li>Attach hose</li> <li>Turn water on</li> </ol>	Weekly or as needed	< 5 min.	After completing preparation steps*: MENU> C-maintenance> C-water refill >ENTER>A-now
Exterior Cleaning	Outside surfaces are cleaned	Moisten a clean cloth	As needed	< 5 min.	Wipe surface & base with damp cloth
Blade Care	Sharpens, balances and tightens mower & edge trimming blades as needed.	None, Note: This task is loud.	Every 7 acres or as needed	30 min.	MENU> C-maintenance > B-blades > ENTER> A-now
Fertilizer Refill	Provides the desired fertilizer for your plants	HandyBot Concentrated Fertilizer	As needed	< 2 min.	<ol> <li>Turn HandyBot off</li> <li>Open the fertilizer storage lid</li> <li>Fill with HBC fertilizer to the line</li> <li>Close the lid securely</li> </ol>
Cleaner Refill	Provides a universal cleaning solution for Indoor & Outdoor tasks	Dawn <sup>®</sup> dish detergent, non-sudsing ammonia	As needed	< 2 min.	<ol> <li>Turn HandyBot off</li> <li>Open the cleaner tank lid</li> <li>Add equal parts Dawn &amp; ammonia</li> <li>Close the lid securely</li> </ol>
Filter Change	Replaces the HEPA filter used during indoor tasks	HandyBot HEPA Filter	Every 3 months or as needed	5 min.	<ol> <li>Turn HandyBot off</li> <li>Remove filter cover</li> <li>Remove used filter</li> <li>Insert clean filter</li> <li>Replace filter cover</li> </ol>
Oil Change	Replaces the oil used to lubricate HandyBot's moving parts.	HandyBot Performance Plus Oil	Annually	30 min.	Pour 2-3 tsp. oil along HandyBot's telescoping shoulders then press: MENU> C-maintenance> D-oil > ENTER> A-now
Restore All Settings	Resets all options to initial default values	None	As needed	<1 min.	MENU> C-maintenance> hold down both A&D while pressing ENTER

# HANDYBOT MAINTENANCE CHART

\*See previous page for more detailed instructions, including the option to combine Self-Clean and Water Refill.

# WARRANTY INFORMATION

HandyBot is covered by a 3-year unlimited warranty from date of purchase when used in accordance with the guidelines published in the HandyBot User Manual.

To activate the warranty, register now: **www.HandyBot.com/register** 

# FREQUENTLY ASKED QUESTIONS

#### Q. How does the HandyBot navigate and avoid crashes?

Handybot uses a stereoscopic vision system in its Upper Sensor Array to track its path. The HandyBot uses the Global Positioning System (GPS) to control its location. A built-in crash sensor prevents collisions with walls, furniture, and other obstacles.

#### Q. Is HandyBot safe around children and animals?

Yes. When doing tasks, HandyBot detects and avoids people, pets and wildlife. If a person or animal comes too close, HandyBot will flash its strobe, back away, and pause until the area is clear.

#### Q. Is HandyBot waterproof?

No. HandyBot is water resistant, but not entirely waterproof. HandyBot should never be submerged in water. Use the boundary wire to exclude any water features from the task area. Exposure to heavy rain or high pressure water spray may result in more frequent maintenance alerts.

#### Q. Can HandyBot handle stairs, inclines, and drop-offs?

Yes. HandyBot can move on slopes of any nonvertical angle. In addition, HandyBot can step up or down abrupt vertical changes of 4 feet or less. Use the boundary wires to protect HandyBot from any drop-offs greater than 4 ft. Larges changes of elevation during a task will deplete HandyBot's battery more rapidly.

#### Q: Will HandyBot track dirt into my home after doing outdoor work?

No. HandyBot uses one set of wheels for indoors and another for outdoors. When switching to indoor tasks, the outdoor wheels retract into sealed compartments, and the indoor wheels emerge. The Self-Clean maintenance task cleans the outdoor wheels as needed.

## **CONCLUSION**

We sincerely hope that your HandyBot provides you with many years of excellent and reliable service. If you have questions or comments about HandyBot, please contact us at customerservice@HandyBot.com .

For support tips, upgrade options, and information about accessories or additional HandyBot features, visit:



🔷 www.HandyBot.com

## INDEX

Accessories. See Parts Animals, 8 Barrier. See Bondary wire Battery, 6, 8 Boundary wire, 2, 4, 7, 8 Calendar, 5 Carpet, 5 Cats, 8 Caution. See Safety Charging, 6 Children, 8 Clean, 7 Cleaner tank, 2, 7 Cleaning, 6, 7 Cliffs, 8 Control Panel, 2, 3-5, 6 Cord, power, 2, 3 Danger. See Safety Days, 5 Dirt, 8 Docking Port (DP), 2, 3, 6 Dogs, 8 Draining Area, 3, 6 Dull blades, 7 Edging, 4 Equipment, 2 Filter, 2, 7 Flashing. See Strobe Floors, 5 Garden, 4 Grass, 4

Guarantee, 8 Hazards. See Safety Height, grass, 4 Help, 8 Holes, 8 Inclines, 8 Kids. See Children Lawn, 4, 8 Light. See Strobe, See Lubrication, 7 Maintenance, 6-7 Mopping, 5 Mowing, 4, 8 Mud, 8 Navigation, 8 Noise, 7 Obstacles, 8 Oil Change, 7 Outlet, 3 Parts, 2, 3, 7, 8 Perimeter, 4, 5 Pets, 8 Pond, 8 Pool, 8 Power, 6 Rain, 8 Refill cleaner, 7 fertilizer, 7 oil, 7 Registration, 3, 8

Routine, 5, See Scheduling Safety, 2, 4, 6, 8 Scheduling, 5 Scrubbing, 5 Sensor Array, 2, 8 Sharpening Blades, 7 Shoulders, telescoping, 2, 7 Sprinkler, 2, 4 Stairs, 8 Steps, 8 Storage HandyBot, 3, 8 wheels, 8 Storms, 8 Strobe, 2, 6, 8 Suction, 5 Supplies, 2 Telescoping. See Shoulders Timing, 5 Updates, 3 Vacuuming, 5 Voltage, 3 Warning. See Safety Warranty, 8 Washing. See Cleaning Water, 3, 6, 7, 8 Water Input Valve, 2, 6 Watering, 4 Weeding, 4 Wheels, 4, 7, 8 Yard, 4, 8