

Autonomous UVC Disinfecting Robots – VioBot™



Violet

Charlotte

Prescient^x offers two autonomous VioBots – Charlotte and Violet. Each VioBot is comprised of a smart UVC appliance, an autonomous robot base and a web-based remote user interface to use on any smart device with Wi-Fi capabilities.

The smart UVC appliance is controlled by a separate centralized computer to control the functionality, monitor the surroundings, house the user interface, log performance data and activate the UVC lamps when it is safe to do so.

Monitoring the environment is achieved using two 360° cameras and four PIR sensors observe the surroundings for the presence of humans and associated movement, and obstacles. If a human is detected in an area where they could get exposed to any UVC light, the lamps will be immediately turned off.

UVC light is provided by eight 254nm 40" T6 high efficiency Teflon coated UVC lamps positioned in three banks, at the front and on both sides. Light banks are programmed to be turned on when the VioBot approaches a surface or object, before travelling parallel to disinfect.

Prescient^x has partnered with two established autonomous robot platforms, Omron Robotic Solutions and Clearpath Robotics, to support our UVC appliance. Each robot platform provides a slightly different feature set, which would be reviewed based on the individual application.

View product video at: <https://www.youtube.com/watch?v=HsI8GLnuDbM>

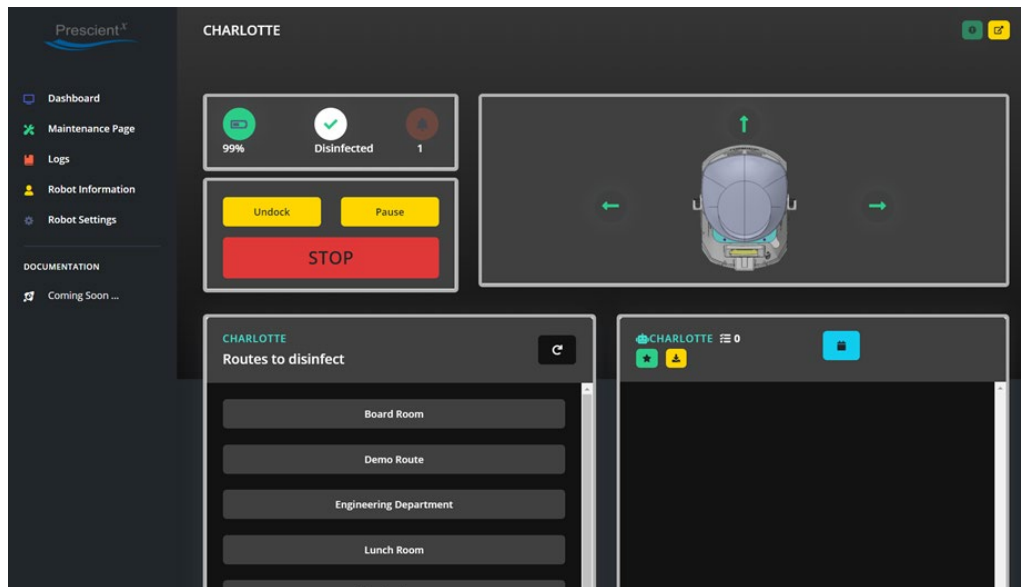
Specifications

	Violet	Charlotte
Disinfection Time	<5 min per room	<5 min per room
Typical Operating Time	>6 hrs of continuous disinfection	>8 hrs of continuous disinfection
Safety System	LiDAR, Sonar, 4 passive infrared sensors, 360-degree machine vision, E-stop	LiDAR, Sonar, 4 passive infrared sensors, 360-degree machine vision, E-stop
Battery Charge Time	85%, 24 min 100%, 1 hr	100%, 2.75 hr
Power Requirements	600 AC @ 4 amps (fast charger)	Two dedicated 120V, 15A circuits
Overall Dimensions	550 mm W x 740 mm L x 1831 mm H (21.7" W x 29.1" L x 72.0" H)	500 mm W x 700 mm L x 1831 mm H (19.7" W x 27.6" L x 72.0" H)
Weight	210 kg (463 lbs)	152 kg (334 lbs)
Maximum Speed	2 m/sec	1.3 m/sec
Communication	2.4 & 5 GHz Wi-Fi RJ-45 Ethernet (setup only) DHCP	2.4 & 5 GHz Wi-Fi RJ-45 Ethernet (setup only) DHCP
UV Wavelength	254 nm	254 nm
Battery Life	9500 cycles	>4000 cycles

Features

- UVC lamps (8): T6 quartz 40 in (101.6 cm) Teflon encapsulated, mercury vapour
- Aluminum construction, with optional additional coatings available if required, and gloss finish on plastic components
 - Violet base housing 304 stainless steel
- Patented CoolDose™ technology for increased UVC lamp output, >30% higher than our competitors
- Three independently controlled UVC light banks are designed to manage battery life – only turn on the lights required to disinfect at a close distance at a high intensity.
- 360-degree machine vision and a variety of sensors enable human presence detection and intelligent navigation
- Multiple operation modes available for unoccupied spaces – committed, uninterrupted disinfection, and lightly occupied spaces – flexible, variable disinfection, depending on the level of disinfection desired
- Proprietary web-based remote User Interface, which includes:
 - Remote VioBot operation control
 - Performance and component functionality monitoring
 - Route planning – multiple rooms, sequencing, favorite list
 - Single user operation, multiple user monitoring
 - Disinfection log, including disinfection time and status

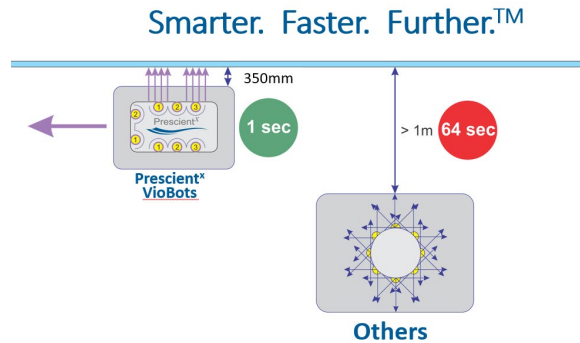
- 3 scheduling options – immediate, delayed or routine (multiple days, same time)
- Ability to communicate with a single or multiple Bluetooth® UVC Dosimeters and Air Quality monitors, and log measurements and adjust speed to achieve specific UVC exposure setpoints
- Component monitoring – user will be notified if any of the internal components are not working as intended
- Lamp life usage accumulation
- Password protected maintenance functionality
- Error and alarm log



- Autonomous battery management system, returns to charging station when required
- Alarm Notification System and safe programmed responses
- Disinfection event logging
- Travel speed adjustment based on input from Bluetooth® UVC Dosimeters to meet exposure set point (optional)

Benefits

- Patented CoolDose™ technology, highest lamp output in the market
- Square design allows for targeted disinfection and higher exposure as lamps are positioned perpendicular to walls and other surfaces



- Independent lamp bank control allows for >8hrs of continuous operation on a single charge
- Dual operation mode for variable disinfection levels and human presence
- Utilizes input from Bluetooth® UVC dosimeters to adjust the speed of the robot to meet pre-set dosing targets
- Violet
 - Fast charging system that allows for a charge from 40-80% in 24 minutes
 - Turning radius of 0mm
- Charlotte
 - Compact footprint to allow for easy maneuverability in tight spaces
 - Turning radius of 0mm

Optional Enhancements


- **Floor Disinfection** – Prescient^x can design and install a UVC LED module to the front or underside of either of the VioBot's, to allow for disinfection of the floor as the unit travels through the building.
- **Elevator or Automatic Door Integration** – Prescient^x is open to working with Genentech and corresponding manufacturers, to develop a communication protocol to allow for either VioBot to interact with elevators and/or automatic doors


Pricing

Item	Description	Qty	Price (USD)
Option 1A			
1	Violet Includes: VioBot, Manual Charger and UVC254 Digital Dosimeter	1	
2	Violet Rapid Charger	1	
Option 1B			
3	Charlotte Includes: VioBot, Manual Charger and UVC254 Digital Dosimeter	1	
4	Charlotte Charging System	1	
5	UVC LED Floor Disinfection Module		Upon Request
6	Integration of VioBot with Elevator or automatic doors		Upon Request
7	Commissioning (either VioBot) Includes: Installation, Mapping of a single floor, Training and the first year of Remote Support	1	
Optional Accessories			
8	uv cense Dosimeter (UVC254)	1	
9	Intelligo UVC Indicators - pkg of 100		
	0-100 mJ/cm ²	1	
	0-1000 mJ/cm ²	1	
	Safety Indicators (0-6 mJ/cm ²)	1	
10	Aranet4 Pro Air Quality Monitor	1	
11	Year 2: Extended Warranty, Remote Support and Software Upgrades		Upon Request

Terms and Conditions

Terms:	50% with Purchase Order 30% at Shipping 20% Net 30
Warranty:	All parts are warranted against manufacturer's defects for a period of 12 months from date of installation, not including wear and tear parts.
Taxes:	All taxes extra
F.O.B.	Prescient ^x Warehouse – Cambridge, Ontario, Canada
Returns:	Stock Items: RGA Required; Restocking Charge Applies; Non-Stock Items: No Returns
Manufactured Items:	Cancellation of orders will result in a 10% penalty through submittal stage. After approved submittals 20% penalty until manufacturing begins. After manufacturing begins, cancellations will not be permitted.
Prices:	Quotation valid for 90 days.

 <p style="text-align: center;">United States ENVIRONMENTAL PROTECTION AGENCY Washington, DC 20460</p> <p style="text-align: center;">Pesticide Report for Pesticide-Producing and Device-Producing Establishments Office of Enforcement and Compliance Assurance Section 7, Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. sec. 136e) http://www.epa.gov/compliance/pesticide-establishment-registration-and-reporting</p>					
1. Establishment Name IPC TECHNOLOGIES INC. DBA PRESCIENTX			2. EPA Est. No. 99668-CAN-1		
3. Establishment Site Address 900 MAPLE GROVE ROAD					
4. City CAMBRIDGE				5. State	
6. Province/Region ONTARIO		7. Country CAN	8. Zip/Postal Code N3H 4R7		
9. Establishment Mailing Address 900 MAPLE GROVE ROAD					
10. City CAMBRIDGE				11. State	
12. Province/Region ONTARIO		13. Country CAN	14. Zip/Postal Code N3H 4R7		
15. Telephone Number 9052522172		16. Email patricia.mazurek@prescientx.com			
17. Check if your establishment's name or address changed <input type="checkbox"/>			18. Did you produce or distribute in 2020? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
19. Company Name IPC Technologies Inc. dba Prescientx					
20. Company Site Address 900 Maple Grove Road					
21. City Cambridge				22. State	
23. Province/Region ONTARIO		24. Country CAN	25. Zip/Postal Code N3H 4R7		
26. Company Mailing Address 900 Maple Grove Road					
27. City Cambridge				28. State	
29. Province/Region ONTARIO		30. Country CAN	31. Zip/Postal Code N3H 4R7		
32. Telephone Number 6132208490		33. Email tianhengconsulting@gmail.com			
34. Check if your company name or address changed <input type="checkbox"/>			35. Check if your Authorized Agent changed <input type="checkbox"/>		
36. Name of Company Official or Authorized Agent Patricia Mazurek			37. Title of Company Official or Authorized Agent Primary Authorized Official		
38. Signature of Company Official or Authorized Agent (Original signature required) _b1248301-a47b-49fd-ae67-666852fdbfe4				39. Date 02/05/2021	
40. Telephone Number of Company Official or Authorized Agent 9052522172		41. Email Of Company Official or Authorized Agent patricia.mazurek@prescientx.com			
EPA Reviewer	EPA Office	Post Mark Date	Date Entered	Comments	Reporting Year 2020

 <p style="text-align: center;">United States ENVIRONMENTAL PROTECTION AGENCY Washington, DC 20460</p> <p style="text-align: center;">Pesticide Report for Pesticide-Producing and Device-Producing Establishments Office of Enforcement and Compliance Assurance Section 7, Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. sec. 136e) http://www.epa.gov/compliance/pesticide-establishment-registration-and-reporting</p>					
Establishment Name		IPC TECHNOLOGIES INC. DBA PRESCIENTX		EPA Est. No.	99668-CAN-1
Pesticide Production Information					
42. Product Code		4 (If "6," attach formulation per instructions.)		43. EPA Product Registration No. N/A	
44. Product Name				45. Product Classification	
46. Product Type		47. Market Sold To		49. Unit of Measurement	
4		USA		U	
48. RUP Status		2			
50. Amount Produced, Repackaged or Relabeled				[2020]	
				0	
51. Amount Sold or Distributed - U.S.				[2020]	
				0	
52. Amount Sold or Distributed - Foreign (Foreign establishments enter "0")				[2020]	
				0	
53. Amount To Be Produced, Repackaged or Relabeled in				[2021]	
				200,000	
42. Product Code		4 (If "6," attach formulation per instructions.)		43. EPA Product Registration No. N/A	
44. Product Name				45. Product Classification	
46. Product Type		47. Market Sold To		49. Unit of Measurement	
4		USA		U	
48. RUP Status		2			
50. Amount Produced, Repackaged or Relabeled				[2020]	
				0	
51. Amount Sold or Distributed - U.S.				[2020]	
				0	
52. Amount Sold or Distributed - Foreign (Foreign establishments enter "0")				[2020]	
				0	
53. Amount To Be Produced, Repackaged or Relabeled in				[2021]	
				12	
42. Product Code		(If "6," attach formulation per instructions.)		43. EPA Product Registration No.	
44. Product Name				45. Product Classification	
46. Product Type		47. Market Sold To		49. Unit of Measurement	
50. Amount Produced, Repackaged or Relabeled					
51. Amount Sold or Distributed - U.S.					
52. Amount Sold or Distributed - Foreign (Foreign establishments enter "0")					
53. Amount To Be Produced, Repackaged or Relabeled in					
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50. Amount Produced, Repackaged or Relabeled					
51. Amount Sold or Distributed - U.S.					
52. Amount Sold or Distributed - Foreign (Foreign establishments enter "0")					
53. Amount To Be Produced, Repackaged or Relabeled in					



Product Approval Services
www.esafe.org

ESAFE – Product Approval Services
4043 Carling Avenue, Suite 106, Ottawa, ON, K2K 2A4
For Inquiries: Toll Free Telephone: 1-800-559-5356
Toll Free Fax: 1-800-559-5358

Certificate of Conformity

Applicant:
PRESCIENTX
900 MAPLE GROVE RD U1
CAMBRIDGE, ON, CA, N3H 4R7

Location of Inspection:
PRESCIENTX
U1 900 MAPLE GROVE RD,
CAMBRIDGE, ON, CA, N3H 4R7

Notification: 30362590
Customer ID: 112965
Certificate Issued: Jul 27, 2021

Approval Date: Jul 26, 2021
Customer Order: 3000000542
Print Date: Jul 27, 2021

At the time of evaluation, the product listed below was found to be in conformity with applicable National Standards as noted below. It is therefore deemed to be approved. For additional information regarding conformity, please contact the ESAFE Customer Service Centre at 1-800-559-5356.

Equipment Information

Description: VIOLET-UVC DISINFECTING ROBOT
Model Number: VIOLET
Manufacture Name: PRESCIENTX
Enclosure: Metal
Enclosure Type: Indoor
Connection Type: Permanently Attached
Number of pieces of Equipment: 2

<u>Voltage</u>	<u>Rated Input</u>	<u>Frequency</u>	<u>Phase</u>	<u>SCCR</u>
25.5VDC	40AMP	DC	DC	N/A

SPE-1000 Procedures: Yes
Standards Used: N/A
Other Procedures: N/A
Conditions of acceptability: N/A

Approval Labels Issued:

<u>Serial No</u>	<u>ESA Label No</u>	<u>Partner Label No</u>
VIOL-00002	S1225433	
VIOL-00003	S1224884	

ESAFE is accredited by the Standards Council of Canada. See www.esafe.org for the scope of accreditation

ESAFE APM# 13 C Rev 2, July 2019