

# Acquisition of AI company validates rapid trend towards ag-robotics

April 30, 2021

On April 8, 2021, an applied technology company, AppHarvest, announced that it acquired Root AI, an artificial intelligence start-up that develops robotic systems to help manage in-door farms. While the prospect of a greenhouse purchasing a tech company may seem unorthodox today, AppHarvest's proactive acquisition represents foresight in an industry on the cusp of what promises to be a near-complete transformation to meet lofty consumer expectations.

## What you need to know

- AppHarvest is an applied technology company working to revolutionize farming by building large high-tech indoor farms that generate more produce and use less water.
- Root AI develops autonomous solutions designed to manage in-door farming activity. Its robotic universal harvester, Virgo, can effectively harvest produce while evaluating crop health, predicting crop yield, and most importantly, relieving human crop care specialists to focus on more challenging and complex tasks.
- Virgo is capable of harvesting multiple crops of varying sizes, including delicate produce like strawberries. Virgo's ability to use discretion and precise force to harvest produce without damaging the produce or the plant it is harvesting from represents a quantum leap forward in an industry that extensively relies on human labour to harvest produce.
- The disruptive impact of Virgo and similar autonomous systems to the agriculture industry cannot be understated. It means less waste, more safety, and improved yields. AppHarvest's acquisition validates the fast-moving trend toward further robotic integration into the agricultural sector. Industry players must be open-minded and capable of managing disruption in order to fully harness the benefits of technology like Virgo.

## The future of autonomous farming

AppHarvest's acquisition represents foresight and proactivity in an industry rapidly progressing towards a near-complete transformation. Consumers want high quality, affordable farm products that have been produced with minimal environmental impact.

Despite these demands, the agriculture sector faces increasing biohazard threats like viruses, which coupled with greater levels of crop homogeneity raise the risk of crop damage and crop failure.

Embracing autonomy and artificial intelligence solutions can reconcile and achieve these often-competing demands while increasing crop health and resiliency. As the price of computational power continues to fall while internet speed and quality continues to increase, artificial intelligence solutions will get smarter and cheaper. As a result, artificial intelligence and autonomy solutions in farm operations will become a requirement to do business rather than a novel technology.

Finally, the introduction of “deep learning artificial intelligence”, which refers to machines capable learning in an unstructured or unsupervised manner, could mean that in the near future artificial intelligence systems capable of rapidly learning, assessing, responding to, and even predicting events may make completely autonomous farming/greenhouse operations an industry standard rather than science fiction.

## Takeaways

Autonomous and artificial intelligence solutions (and the challenges stemming from their disruptive impact) require innovative thinking and a keen understanding of the risks and benefits associated with their use. A proactive approach to the rise of autonomous and artificial intelligence solutions in the agriculture industry will best position industry players looking to take advantage of the productivity and efficiency improvements offered by paradigm changing technology like those developed by Root AI.

Involving and working with legal advisors at an early stage can help improve outcomes and mitigate risks associated with utilizing autonomous equipment and machinery in the agriculture sector, which is positioned to experience greater levels of disruption than other industries as the pace of innovation in autonomy and artificial intelligence continues to accelerate.

## BLG’s autonomy expertise

In any industry, taking action early is key to minimizing the disruptive impact of emerging technologies like autonomous and artificial intelligence. With broad industry experience and particular expertise in the development of autonomous solutions and the development of AI systems, BLG is here to help our clients navigate the opportunities and challenges that this revolutionary era of autonomy is already ushering in.

By

[Marin Leci](#), [Karleigh Maag](#), [Joel B. Jones](#)

Expertise

[Construction](#), [Technology](#), [Agribusiness](#), [Artificial Intelligence \(AI\)](#)

---

## BLG | Canada's Law Firm

As the largest, truly full-service Canadian law firm, Borden Ladner Gervais LLP (BLG) delivers practical legal advice for domestic and international clients across more practices and industries than any Canadian firm. With over 800 lawyers, intellectual property agents and other professionals, BLG serves the legal needs of businesses and institutions across Canada and beyond – from M&A and capital markets, to disputes, financing, and trademark & patent registration.

[blg.com](http://blg.com)

### BLG Offices

#### Calgary

Centennial Place, East Tower  
520 3rd Avenue S.W.  
Calgary, AB, Canada  
T2P 0R3

T 403.232.9500  
F 403.266.1395

#### Ottawa

World Exchange Plaza  
100 Queen Street  
Ottawa, ON, Canada  
K1P 1J9

T 613.237.5160  
F 613.230.8842

#### Vancouver

1200 Waterfront Centre  
200 Burrard Street  
Vancouver, BC, Canada  
V7X 1T2

T 604.687.5744  
F 604.687.1415

#### Montréal

1000 De La Gauchetière Street West  
Suite 900  
Montréal, QC, Canada  
H3B 5H4

T 514.954.2555  
F 514.879.9015

#### Toronto

Bay Adelaide Centre, East Tower  
22 Adelaide Street West  
Toronto, ON, Canada  
M5H 4E3

T 416.367.6000  
F 416.367.6749

The information contained herein is of a general nature and is not intended to constitute legal advice, a complete statement of the law, or an opinion on any subject. No one should act upon it or refrain from acting without a thorough examination of the law after the facts of a specific situation are considered. You are urged to consult your legal adviser in cases of specific questions or concerns. BLG does not warrant or guarantee the accuracy, currency or completeness of this publication. No part of this publication may be reproduced without prior written permission of Borden Ladner Gervais LLP. If this publication was sent to you by BLG and you do not wish to receive further publications from BLG, you may ask to remove your contact information from our mailing lists by emailing [unsubscribe@blg.com](mailto:unsubscribe@blg.com) or manage your subscription preferences at [blg.com/MyPreferences](http://blg.com/MyPreferences). If you feel you have received this message in error please contact [communications@blg.com](mailto:communications@blg.com). BLG's privacy policy for publications may be found at [blg.com/en/privacy](http://blg.com/en/privacy).

© 2026 Borden Ladner Gervais LLP. Borden Ladner Gervais LLP is an Ontario Limited Liability Partnership.