

2022

HB 1009: Remote Operation of Personal Delivery Devices

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MOTOR VEHICLES AND TRAFFIC

Uniform Rules of the Road: Amend Title 40 of the Official Code of Georgia Annotated, Relating to Motor Vehicles and Traffic, so as to Provide for the Operation of Personal Delivery Devices upon Highways and Sidewalks; Provide for and Revise Definitions; Provide for Conditions and Limitations for such Operation; Provide for Standards for Parking Such Devices; Prohibit the Transport of Hazardous Materials by Such Devices; Provide for Equipment Standards for such Devices; Provide for Insurance and Monitoring Standards; Provide for Procedures for Reporting of Accidents by Such Devices; Provide for Penalties; Provide for Issuance of Citations; Provide for Jurisdiction and Authority to Hear Cases Relative to Such Citations; Provide for Power of Local Authorities relative to Regulation of such Devices; Prohibit Operation of Such Devices in Certain Locations; Provide for Related Matters; Repeal Conflicting Laws; and for Other Purposes

CODE SECTIONS: O.C.G.A. §§ 40-1-1 (amended);
40-6-320, -321, -322, -323, -324, -325,
-326, -327 (amended);
40-6-328, -329, -329.1, -329.2 (new)

BILL NUMBER: HB 1009

ACT NUMBER: 814

GEORGIA LAWS: 2022 Ga. Laws 543

EFFECTIVE DATE: July 1, 2022

SUMMARY: The Act provides for the remote operation of personal delivery devices on Georgia's highways, streets, bike paths, and sidewalks. It provides the required parameters for operation including parking, time frames, speed limits, safety parameters, weight limits, insurance, and local enforcement through civil citations.

History

“We are on the eve of the largest robot distribution ever.”

- Dr. Susan Calvin, *I, Robot*¹

Delivery by robot has seemed inevitable for some time due to advances in automation technologies.² Even before the COVID-19 pandemic, the rise in online shopping rendered malls impractical for some patrons who prefer having goods conveniently delivered straight to their doors.³ The need to stay at home at the onset of the pandemic created a rise in remote work and, subsequently, an increased demand for delivery drivers.⁴ Last-mile transport—the stage at which a package arrives at a customer’s door—has experienced “[u]nparalleled growth” and is expected to continue to grow by 78% in urban areas through 2030 due to enhanced technology and urbanization.⁵ In response to the continuing pressure on deliveries and logistics, automation experts propose that “[a]utonomous vehicles (AVs) could help alleviate the strain on existing delivery services while reducing the risk of exposure for citizens.”⁶

1. *I, ROBOT* (Twentieth Century Fox 2004).

2. See U.S. POSTAL SERV., OFF. OF INSPECTOR GEN., RARC-WP-18-005, SUMMARY REPORT: PUBLIC PERCEPTION OF DELIVERY ROBOTS IN THE UNITED STATES 9 (2018), <https://www.uspsoidg.gov/sites/default/files/document-library-files/2019/RARC-WP-18-005.pdf> [<https://perma.cc/8XUZ-ZHXX>]. According to a national sample (n = 2,942) in 2018, 81% of survey participants believed that independent delivery robots will be in use within five years and 84% believed helper delivery robots would be in use within the same time frame. *Id.* The national sample had a 95% confidence level +/- 1.8%. *Id.*

3. See Josh Sanburn, *Why the Death of Malls Is About More Than Shopping*, TIME (July 20, 2017, 6:40 AM), <https://time.com/4865957/death-and-life-shopping-mall/> [<https://perma.cc/35E2-V74W>].

4. Tim Dawkins, *How COVID-19 Could Open the Door for Driverless Deliveries*, WORLD ECON. F. (Apr. 7, 2020), <https://www.weforum.org/agenda/2020/04/how-covid-19-could-open-the-door-for-driverless-deliveries/> [<https://perma.cc/7ZMN-ZL4A>].

5. Shelagh Dolan, *The Challenges of Last Mile Delivery Logistics and the Tech Solutions Cutting Costs in the Final Mile*, INSIDER INTEL. (Apr. 15, 2022), <https://www.insiderintelligence.com/insights/last-mile-delivery-shipping-explained/> [<https://perma.cc/9UQ6-BP24>]; THOMAS DELOISON, ERIC HANNON, ANJA HUBER, BERND HEID, CHRISTOPH KLINK, RICHASAHAY & CHRISTOPH WOLFF, WORLD ECON. F., THE FUTURE OF THE LAST-MILE Ecosystem 6 (2020), https://www3.weforum.org/docs/WEF_Future_of_the_last_mile_ecosystem.pdf [<https://perma.cc/4DBP-8SCK>]. Many potential last-mile interventions are being explored including:

vehicle changes, secure delivery, customer movement, consolidation, last leg changes, and delivery environment. *Id.* at 14.

6. Dawkins, note 4.

Even so, many regulatory barriers remain before AVs are globally utilized.⁷ Researchers and economists suggest that automation will “pose significant challenges for policymakers” because automation is highly disruptive to workers and raises safety concerns.⁸ Specifically, AVs would, without prior regulatory exemption, violate “existing vehicle safety standards, which require human-operable controls and mirrors.”⁹ Bikers and pedestrians, too, are concerned about safely sharing their paths with delivery robots and personal delivery devices (PDDs), adding another layer to policymakers’ challenges.¹⁰ Even so, lawmakers and regulatory authorities have an opportunity to streamline last-mile delivery using AVs by considering new “agile regulation” that upholds necessary safety standards while enabling a sustainable “delivery ecosystem.”¹¹

Lawmakers across the country have taken on this opportunistic challenge, and about twenty states had passed legislation regarding PDDs before discussions began in Georgia.¹² But even before Georgia lawmakers began drafting, delivery robots began field testing in Georgia.¹³ Robotic delivery services offer expedited services, cost

7. *Id.*

8. James Bessen, Maarten Goos, Anna Salomons, & Wiljan van den Berge, *Automation: A Guide for Policy Makers*, BROOKINGS INST. (Jan. 2020), https://www.brookings.edu/wp-content/uploads/2020/01/Bessen-et-al_Full-report.pdf [<https://perma.cc/5KP7-X6Y7>]; Dawkins, *supra* note 4.

9. Dawkins, *supra* note 4.

10. Video Recording of Senate Committee on Transportation Meeting at 29 min., 30 sec. (Mar. 23, 2022) [hereinafter Senate Transportation Committee Video] (remarks by Bruce Hagen, Partner, Hagen Roskopf (Bike Law Georgia)), <https://vimeo.com/showcase/8822007/video/691503581> [<https://perma.cc/2ZCJ-AQ4F>]; *id.* at 34 min., 57 sec. (remarks by John Devine, Executive Director, Georgia Bikes!); *id.* at 38 min., 30 sec. (remarks by Keith Larson, Bicycle and Pedestrian Advocate, Bike-Walk Fayette).

11. Dawkins, *supra* note 4.

12. Virtual Interview with Rep. Todd Jones (R-25th) (Apr. 26, 2022) [hereinafter Jones Interview] (on file with the Georgia State University Law Review); David Wickert, *Lawmakers Set Rules for Delivery Robots*, ATLANTA J.-CONST. (Apr. 6, 2022), <https://www.ajc.com/politics/georgia-state-legislature/georgia-lawmakers-set-rules-of-the-road-for-delivery-robots/TDRDYGARXZF6RE3OMGZ6YPRVY/> [<https://perma.cc/G4S6-6KMP>].

13. James Vincent, *Amazon Expands Its Robot Delivery Trials to More States*, VERGE (Jul. 21, 2020, 6:33 AM), <https://www.theverge.com/2020/7/21/21332374/amazon-autonomous-robot-delivery-scout-expands-trials-atlanta-georgia-franklin-tennessee> [<https://perma.cc/5P7E-9WUZ>] (discussing Amazon’s field tests of its delivery robot, Scout in Snohomish County, Washington; Irvine, California; Franklin, Tennessee; and Atlanta, Georgia); Press Release, Ga. S. Univ., *Robotic Food Delivery Provides Contactless Service Across Georgia Southern Campus* (Aug. 4, 2020), <https://news.georgiasouthern.edu/2020/08/04/robotic-food-delivery-provides-contactless-service-across-georgia-southern-campus/> [<https://perma.cc/YA9-3TMN>] (featuring the university’s cooler-sized

efficiency, increased accuracy, and reduced environmental emissions.¹⁴ Because of PDDs' advantages, Representative Todd Jones (R-25th) introduced HB 1009 during the 2021–2022 legislative session, initially looking to Florida, as the most recent state to pass a similar bill, for guidance.¹⁵ HB 1009 became a natural extension of Georgia's 2003 "Segway Bill," which "created a hybrid status for Segway riders" by granting some pedestrian privileges "while stipulating special speed limits" and traffic rules.¹⁶ Senator Steve Gooch (R-51st) cosponsored the bill, and after the transformative committee process in the House and Senate, Governor Brian Kemp (R) signed HB 1009 into law on May 2, 2022.¹⁷ On July 1, 2022, the Act took effect and robots were free to roam Georgia's streets.¹⁸

Bill Tracking of HB 1009

Consideration and Passage by the House

Representative Todd Jones (R-25th) sponsored and introduced HB 1009 in the House.¹⁹ The bill was placed in the House hopper on January 25, 2022.²⁰ The House read the bill for the first time on January 26, 2022, and for a second time on January 27, 2022.²¹ The

Starship robots that provided contactless food delivery services on campus).

14. Astute Analytica, *Global Delivery Robot Market Size Will Reach US \$ 262.7 Million by 2027*, GLOBENEWSWIRE (May 16, 2022, 11:30 AM), <https://www.globenewswire.com/news-release/2022/05/16/2444137/0/en/Global-Delivery-Robot-Market-Size-Will-Reach-US-262-7-Million-by-2027-CAGR-17-31-Astute-Analytica.html> [<https://perma.cc/95QC-QBY3>].

15. Jones Interview, *supra* note 12. Representative Jones knew that because Florida was the most recent bill in the country on robotic delivery it would have cleared any issues arising from federal conflicts of law, but by the second or third committee meeting, the bill morphed into Georgia's own. *Id.*

16. See 2003 Ga. Laws 308; John Giannini, *MOTOR VEHICLES AND TRAFFIC General Provisions: Provide for Regulation of Electric Personal Assistive Mobility Devices*, 20 GA. ST. U. L. REV. 198, 200, 204 (2003).

17. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022.

18. *Id.* Perhaps these robots may even roam the woods, as did a delivery robot that went viral on Twitter for creating a "poetic moment" in the woods of England, prompting social media users everywhere to get nostalgic feelings of "beloved robot characters such as R2-D2 and WALL-E . . ." Jaclyn Diaz, *A Delivery Robot Creates a Poetic Moment in the Woods of England*, GPB NEWS (May 20, 2022, 1:07 PM), <https://www.gpb.org/news/2022/05/20/delivery-robot-creates-poetic-moment-in-the-woods-of-england> [<https://perma.cc/F4RK-DGYT>].

19. Georgia General Assembly, HB 1009, Bill Tracking [hereinafter HB 1009, Bill Tracking], <https://www.legis.ga.gov/legislation/61342> [<https://perma.cc/A6ZV-4FE3>].

20. *Id.*

21. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022.

bill was assigned to the House Committee on Motor Vehicles, and the Committee reported favorably by substitute on February 2, 2022, once the Committee substitute clarified that local authorities could not impose additional taxes on PDDs.²² The next day, the bill was withdrawn from the general calendar of the House and recommitted to the Committee on Motor Vehicles.²³ On February 24, 2022, the Committee reported favorably as substituted.²⁴

The second Committee substitute incorporated PDDs into the existing “Segway Bill” as a more natural evolution of the law, rather than creating a new Chapter in Title 40 of the Official Code of Georgia Annotated, and substantially expanded the bill.²⁵ This substitute clarified parking requirements, accident and violation reporting requirements, civil penalties, and jurisdiction over PDDs.²⁶ The substitute also increased safety standards by imposing speed limits for PDDs, requiring PDDs to emit a sound when near a person or vehicle, imposing a weight limit on PDDs, requiring an operator’s phone number be placed on the PDD, and enabling local authorities to set PDDs’ permissible hours of operation.²⁷ Additionally, the substitute allowed local authorities to create experimental testing sites for “emerging mobility technologies,” such as the Peachtree Corners testing site.²⁸

22. HB 1009, Bill Tracking, *supra* note 19; HB 1009 (LC 39 3198ERS), § 2, p. 5, ll. 92–97, 2022 Ga. Gen. Assemb.

23. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022.

24. *Id.*

25. Compare HB 1009 (LC 39 3198ERS), § 2, p. 3, l. 54, 2022 Ga. Gen. Assemb., with HB 1009 (LC 39 3263S), § 2, p. 3, ll. 52–54, 2022 Ga. Gen. Assemb.; see 2003 Ga. Laws 308, § 4, at 309–11 (codified at O.C.G.A. §§ 40-6-320, -321, -322, -323, -324, -325, -326, -327 (2022)).

26. HB 1009 (LC 39 3263S), § 2, p. 5, ll. 107–15, 2022 Ga. Gen. Assemb.; *id.* § 2, p. 7, ll. 159–64; *id.* § 2, p. 8, ll. 165–84.

27. *Id.* § 2, p. 4, ll. 69–70; *id.* § 2, p. 4, ll. 83–84; *id.* § 1, p. 2, ll. 21–23; *id.* § 2, p. 6, ll. 137–41; *id.* § 2, p. 9, ll. 197–201.

28. *Id.* § 3, pp. 9–10, ll. 213–22. In Gwinnett County, Peachtree Corners’ Curiosity Lab is known as an innovation hub and test site for AVs and new technologies. Video Recording of House Motor Vehicles Committee Meeting at 45 min., 11 sec. (Feb. 23, 2022) [hereinafter House Motor Vehicles February 23] (remarks by Brian Johnson, City Manager, Peachtree Corners), <https://www.youtube.com/watch?v=IFca4IXjSI0&t=1660s> [<https://perma.cc/RT29-3BWA>].

On February 24, 2022, the House read the bill for a third time, pursuant to the Modified Structured Rule.²⁹ On March 1, 2022, the House adopted the bill by a vote of 112 to 53.³⁰

Consideration and Passage by the Senate

After HB 1009's passage in the House, the Senate read the bill for the first time on March 3, 2022, and referred it to the Senate Transportation Committee where Senator Steve Gooch (R-51st) sponsored it.³¹ The Committee reported favorably by substitute on March 25, 2022.³² The Committee substitute incorporated several amendments: changing the definitions of "bicycle lane" and "bicycle path" to permit PDD travel; modifying PDDs' weight limit; decreasing the permissible speed limit on sidewalks, shared use paths, safety zones, and crosswalks; increasing the distance from which a PDD must emit a sound; raising the liability insurance amount PDDs must maintain; and requiring that the unique identification number and operator phone number, "which shall be answered at any time when the device is in operation," be prominently displayed on the PDD.³³ Additionally, the Committee added a definition for "personal delivery device owner" and clarified the responsibilities of PDD owners and operators.³⁴ Notably, to help alleviate some safety concerns, the substitute provided that pedestrians and wheelchairs have the right of way on sidewalks and expanded local authorities' existing ability to

29. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022; The Modified Structure Rule, Rule 33.2I, provides that "germane amendments may be offered after being approved by the Committee on Rules. This rule may preclude amendments to a particular portion of the bill, although other parts of the bill may be open to amendment." GA. H.R., RULES, ETHICS, AND DECORUM OF THE HOUSE OF REPRESENTATIVES: 2021-2022 BIENNIAL 18 (2021), https://www.legis.ga.gov/api/document/docs/default-source/house-members-document-library/house-rules.pdf?sfvrsn=7842c5f1_6 [<https://perma.cc/S4KY-YN6C>].

30. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022; Georgia House of Representatives Voting Record, HB 1009, #587 (Mar. 1, 2022).

31. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022; HB 1009, Bill Tracking, *supra* note 19.

32. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022.

33. HB 1009 (LC 39 3451S), § 1, p. 2, ll. 18–27, 2022 Ga. Gen. Assemb.; *id.* § 1, p. 2, ll. 31–34; *id.* § 2, pp. 5–6, ll. 110–16; *id.* § 2, p. 5, ll. 101–02; *id.* § 2, p. 8, ll. 176–78; *id.* § 2, p. 7, ll. 156–61.

34. *Id.* § 1, p. 2–3, ll. 31–45.

establish hours of operations for PDDs on highways and sidewalks to include “bicycle lanes, bicycle paths, and shared use paths.”³⁵

A few days later, on March 28, 2022, the Senate read the bill for the second time.³⁶ Subsequently, the Committee reported favorably by substitute on April 1, 2022.³⁷ This final substitute removed the requirement that a PDD operator must be located in Georgia but added a requirement that the phone number displayed on a PDD connect to an individual in the state.³⁸ Additionally, the final substitute permits local authorities to designate geographic areas (of up to seven miles) where PDDs may be operated under local ordinances rather than state law.³⁹ On the same day, April 1, 2022, the bill was read for a third time and adopted by substitute by a vote of 39 to 10.⁴⁰

Consideration of Senate’s Amendments and Passage by the House

After the Senate’s passage of the amended version of HB 1009, the bill returned to the House on April 4, 2022, where the House concurred and passed the Senate’s substitution by a vote of 151 to 14.⁴¹ The House sent the bill to Governor Brian Kemp (R) on April 7, 2022, and he signed it into law as Act 814 on May 2, 2022.⁴² The effective date of the Act is July 1, 2022.⁴³

The Act

The Act amends Title 40 of the Official Code of Georgia Annotated by amending Code sections 40-1-1, 40-6-320, -321, -322, -323, -324, -325, -326, and -327, and adding

35. *Id.* § 2, p. 4, ll. 77–80; *id.* § 2, p. 10, ll. 217–22.

36. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022.

37. *Id.*

38. *Compare* HB 1009 (LC 39 3451S), § 1, p. 2, ll. 35–37, 2022 Ga. Gen. Assemb., *with* HB 1009 (LC 39 3464S), § 1, p. 2, ll. 34–35, 2022 Ga. Gen. Assemb. *Compare* HB 1009 (LC 39 3451S), § 2, p. 7, ll. 156–58, 2022 Ga. Gen. Assemb., *with* HB 1009 (LC 39 3464S), § 2, p. 7, ll. 155–57, 2022 Ga. Gen. Assemb.

39. HB 1009 (LC 39 3464S), § 2, p. 10, ll. 227–32, 2022 Ga. Gen. Assemb.

40. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022; Georgia Senate Voting Record, HB 1009, #800 (Apr. 1, 2022).

41. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022; Georgia House of Representatives Voting Record, HB 1009, #881 (Apr. 4, 2022).

42. State of Georgia Final Composite Status Sheet, HB 1009, May 19, 2022.

43. HB 1009, Bill Tracking, *supra* note 19.

Code sections 40-6-328, -329, -329.1, and -329.2.⁴⁴ The purpose of the Act is to regulate the operation of PDDs in Georgia.⁴⁵

Section 1

Section 1 of the Act amends the definitions in Code section 40-1-1.⁴⁶ Specifically, the Act amends paragraphs (6.1), (6.2), (33), (43.1), (43.2), and (57), and adds three new paragraphs.⁴⁷ The Act revises the definitions of “bicycle lane” and “bicycle path” to expressly allow PDDs to use these pathways.⁴⁸ The Act revises the definition of “motor vehicle” to expressly exclude PDDs.⁴⁹ The Act replaces paragraphs (43.1) and (43.2), which defined “personal transportation vehicle” and a “personal transportation vehicle path,” with the definitions of “personal delivery device” and a “personal delivery device operator.”⁵⁰ The Act also adds paragraph (43.3) to define a “personal delivery device owner.”⁵¹

Section 2

Section 2 of the Act amends Article 13 of Chapter 6 of Title 40, the “Segway Bill.”⁵² Within Chapter 6, the Act amends Code sections 40-6-320, -321, -322, -323, -324, -325, -326, and -327 and adds Code sections 40-6-328, -329, -329.1, and -329.2.⁵³ The Act amends Code section 40-6-320 to include PDDs, specify the roadways and paths that PDDs can operate on, and clarify that PDDs “shall yield the right of way” to pedestrians or individuals in wheelchairs.⁵⁴ The Act amends Code section 40-6-321 to include PDDs and require them to “emit a

44. 2022 Ga. Laws 543, §§ 1-2, at 543–49 (codified at O.C.G.A. §§ 40-1-1, 40-6-320 to -329.2 (2022)).

45. 2022 Ga. Laws 543.

46. 2022 Ga. Laws 543, § 1, at 543–45 (codified at § 40-1-1).

47. *Id.*

48. 2022 Ga. Laws 543, § 1, at 543–44 (codified at § 40-1-1(6.1)–(6.2)).

49. 2022 Ga. Laws 543, § 1, at 544 (codified at § 40-1-1(33)).

50. 2022 Ga. Laws 543, § 1, at 544–45 (codified at § 40-1-1(43.1)–(43.2)). The definitions of “personal transportation vehicle” and “personal transportation vehicle path” are now located at paragraphs 43.4 and 43.5 of Code section 1 of Chapter 1 of Title 40. §§ 40-1-1(43.4)–(43.5).

51. 2022 Ga. Laws 543, § 1, at 544 (codified at § 40-1-1(43.3)).

52. 2022 Ga. Laws 543, § 2, at 545–49.

53. *Id.* (codified at §§ 40-6-320 to -329.2).

54. 2022 Ga. Laws 543, § 2, at 545 (codified at § 40-6-320(a)).

sound when approaching and within six feet of a vehicle, person on foot, or individual in a wheelchair.”⁵⁵ The Act amends Code section 40-6-322 to limit the speed at which PDDs can operate on bicycle lanes, shoulders, roadways, sidewalks, shared use paths, and crosswalks.⁵⁶ The Act amends Code section 40-6-323 to address PDD parking restrictions, possible parking violations, and responsibility for such violations.⁵⁷ The Act also prohibits transportation of hazardous materials by PDDs under Code section 40-6-324.⁵⁸ The Act amends Code section 40-6-325 to require PDDs to have specific lighting depending on the time of day, a braking system, and an identification number and phone number for the PDD owner “prominently displayed” on the PDD.⁵⁹ Code section 40-6-326 is included in but was not modified by the Act.⁶⁰

Additionally, the Act replaces Code section 40-6-327 and relocates the language to Code section 40-6-329, a new Code section.⁶¹ The Act adds subsections (a) and (b) to Code section 40-6-327, which designates who can monitor and operate a PDD and requires PDD owners to maintain at least \$250,000 in general liability insurance coverage.⁶² The Act also adds Code section 40-6-328 which establishes the procedures to follow when a PDD is involved in an accident.⁶³

Further, the Act adds Code section 40-6-329.⁶⁴ Subsection (a) of Code section 40-6-329 incorporates the language from the previous Code section 40-6-327 regarding Title 40 violations by “electric personal assistive mobility device[s].”⁶⁵ Subsection (b) of Code section 40-6-329 clarifies that PDDs’ Title 40 violations are not criminal offenses but are subject to a civil monetary penalty of up to

55. 2022 Ga. Laws 543, § 2, at 546 (codified at § 40-6-321).

56. 2022 Ga. Laws 543, § 2, at 546 (codified at § 40-6-322).

57. 2022 Ga. Laws 543, § 2, at 546 (codified at § 40-6-323).

58. 2022 Ga. Laws 543, § 2, at 547 (codified at § 40-6-324).

59. 2022 Ga. Laws 543, § 2, at 547 (codified at § 40-6-325).

60. 2022 Ga. Laws 543, § 2, at 547 (codified at § 40-6-326).

61. *Compare* O.C.G.A. § 40-6-327 (2021), *with* 2022 Ga. Laws 543, § 2, at 548 (codified at O.C.G.A. § 40-6-329(a) (2022)).

62. 2022 Ga. Laws 543, § 2, at 548 (codified at O.C.G.A. § 40-6-327 (2022)).

63. 2022 Ga. Laws 543, § 2, at 548 (codified at § 40-6-328).

64. 2022 Ga. Laws 543, § 2, at 548 (codified at § 40-6-329).

65. *Compare* O.C.G.A. § 40-6-327 (2021), *with* 2022 Ga. Laws 543, § 2, at 548 (codified at O.C.G.A. § 40-6-329(a) (2022)).

\$500.⁶⁶ Subsection (b) also clarifies that citations are issued to PDD owners, not PDD operators.⁶⁷ Subsection (c) provides that courts with jurisdiction over motor vehicle operation will also have jurisdiction over PDDs.⁶⁸

The Act adds Code section 40-6-329.1, which explains how local authorities can and cannot regulate PDDs.⁶⁹ For example, while local authorities can establish operating hours and geographical limits, they are prohibited from enacting any license or certification requirements.⁷⁰

Lastly, the Act adds Code section 40-6-329.2, which prohibits PDD operation on a “surface transportation project,” as defined in Code section 36-61-2.⁷¹

Analysis

HB 1009 fulfills an industry need, encourages innovation, and makes Georgia a market leader for PDDs. The extensive collaborative committee process enabled various stakeholders to address safety concerns regarding the previously undefined parameters surrounding PDDs.⁷² Despite the collaborative efforts, HB 1009 will likely require future amendments as new safety concerns arise.

66. O.C.G.A. § 40-6-329(b) (2022).

67. *Id.* A PDD operator is “a person or an agent of a person that exercises control or monitoring over the operation” of a PDD but is not an operator when a person solely: “(A) [r]equests or receives the delivery or services of a [PDD]; (B) [a]rranges for or dispatches the requested services of a [PDD]; or (C) [s]tores, charges, or maintains a [PDD].” § 40-1-1(43.2). In contrast, a PDD owner is “a person, individual, firm, company, association, corporation, or other business entity who owns a [PDD] or, in the event that the [PDD] is leased, the lessee and may include a [PDD] operator.” § 40-1-1(43.3).

68. § 40-6-329(c).

69. 2022 Ga. Laws 543, § 2, at 548–49 (codified at § 40-6-329.1).

70. § 40-6-329.1.

71. 2022 Ga. Laws 543, § 2, at 549 (codified at § 40-6-329.2).

72. See Senate Transportation Committee Video, *supra* note 10, at 29 min., 42 sec. (remarks by Bruce Hagen, Partner, Hagen Rosskopf (Bike Law Georgia)); *id.* at 34 min., 57 sec. (remarks by John Devine, Executive Director, Georgia Bikes!); *id.* at 38 min., 30 sec. (remarks by Keith Larson, Bicycle and Pedestrian Advocate, Bike-Walk Fayette).

Florida's Law

Before HB 1009's passage, Florida was the latest state to pass a bill on delivery by robot.⁷³ The biggest concerns surrounding HB 1009 included the lack of federal guidance and conflict-of-law issues.⁷⁴ As of July 2022, a total of twenty-three jurisdictions in the United States have addressed PDDs in the law.⁷⁵ Neither Congress, the Supreme Court, nor federal regulatory bodies have addressed PDDs or have given any indication as to when or if they plan to do so. Over time, however, the variation in state law, and PDDs' possible operation across state lines, will likely necessitate field preemption under the Supremacy Clause.⁷⁶ After researching federal laws, Representative Todd Jones (R-25th) looked to Florida's law for guidance before introducing HB 1009 because he knew that Florida would have addressed any existing federal conflict issues.⁷⁷

Florida's law differs from HB 1009 in several respects.⁷⁸ When passed in 2017, Florida's law was notably more restrictive in terms of a PDD's permissible size.⁷⁹ Florida's law set a PDD's maximum unladen weight at eighty pounds and the maximum speed at ten miles per hour.⁸⁰ Florida law has since changed to require that a PDD's weight cannot "exceed the maximum weight established by [the Florida] Department of Transportation."⁸¹

73. Jones Interview, *supra* note 12.

74. *Id.*

75. Jurisdictional Survey Report for "Personal Delivery Devices," WESTLAW EDGE, THOMSON REUTERS [hereinafter PDD Survey Report] (last visited July 17, 2022) (on file with the Georgia State University Law Review). These jurisdictions are: Arizona, Arkansas, Colorado, the District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Louisiana, Maryland, Missouri, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Utah, Virginia, Washington, and Wisconsin. *Id.*

76. See Jones Interview, *supra* note 12; see also JAY B. SYKES & NICOLE VANATKO, CONG. RSCH. SERV., R45825, FEDERAL PREEMPTION: A LEGAL PRIMER 1 (2019), <https://crsreports.congress.gov/product/pdf/R/R45825> [<https://perma.cc/6283-SABP>]. Field preemption may occur "where states attempt to regulate a field where there is clearly a dominant federal interest." *Id.* at 2. See U.S. CONST. art. VI, cl. 2.

77. Jones Interview, *supra* note 12. In contrast to drones, which are subject to more federal regulation, PDDs are not free in the airspace, making federal conflicts less of an issue. *Id.*

78. Compare 2017 Fla. Sess. Law Serv. 150 (West), with 2022 Ga. Laws 543.

79. Compare FLA. STAT. ANN. § 316.003 (West 2017), with O.C.G.A. § 40-1-1(43.1) (2022).

80. 2017 Fla. Sess. Law Serv. 150 (West) (formerly found at FLA. STAT. ANN. § 316.003 (West 2017)).

81. FLA. STAT. ANN. § 316.003 (West 2022). See 47 Fla. Admin. Reg. 5029 (Oct. 28, 2021). Florida's Department of Transportation is working to establish these rules. *Id.*

But Georgia’s politicians did not want to effectively exclude Amazon or FedEx—whose bots weigh 105 and 500 pounds, respectively—from the PDD market in Georgia.⁸² Therefore, the unladen weight limit is five hundred pounds, and PDDs can operate at up to twenty miles per hour on roadways or four miles per hour on a sidewalk, shared use path, crosswalk, or safety zone.⁸³ In contrast, PDDs in Florida may only operate on public highways “to the extent necessary to cross a crosswalk,” and when on sidewalks, the operator must “actively [control] or [monitor] the navigation and operation” of the PDD.⁸⁴ Although the Georgia General Assembly engaged the Georgia Department of Transportation (GDOT) while drafting HB 1009, it is unknown if GDOT has plans to further regulate the law as is planned by the Florida Department of Transportation.⁸⁵ Only time will tell how involved the federal government and/or GDOT will be in future PDD regulation.

Local Control

Although Florida is handing over much of the PDD regulatory power to its department of transportation, other states do not impose any state-level parameters on PDD operation.⁸⁶ In California, for example, the City of Los Angeles’s Department of Transportation (LADOT) maintains its own licensing and insurance requirements and permit application process for fleets—all at the local level.⁸⁷

In contrast, Georgia’s legislature focused on limiting local control—with the exception of the carve-out provision in Code section

82. Senate Transportation Committee Video, *supra* note 10, at 26 min., 30 sec. (remarks by Chairperson, Sen. Frank Ginn (R-47th)); *id.* at 28 min., 2 sec. (remarks by Jeff Cleland, Senior Manager of State Transportation Policy, Amazon) (noting that Amazon’s bot, Scout, weighs 105 pounds); *id.* at 37 min., 30 sec. (remarks by Duple’ Travillion, Senior State and Local Government Affairs Representative, FedEx) (noting that the FedEx bot weighs 500 pounds).

83. §§ 40-1-1(43.3), 40-6-322(b).

84. FLA. STAT. ANN. § 316.2071(3)(a)–(b) (West 2022).

85. Senate Transportation Committee Video *supra* note 10, at 14 min., 55 sec. (remarks by Rep. Todd Jones (R-25th)); 2022 Ga. Laws 543, § 2, at 546 (codified at § 40-6-321).

86. FLA. STAT. ANN. § 316.003(58) (West 2022); PDD Survey Report, *supra* note 75.

87. See L.A. DEP’T TRANSP., PERSONAL DELIVERY DEVICES VERSION 1.0 PERMIT APPLICATION, <https://ladot.lacity.org/sites/default/files/documents/final-personal-delivery-devices-permit.pdf> [<https://perma.cc/8MUU-622Q>]; L.A. DEP’T TRANSP., PERSONAL DELIVERY DEVICES (PDD) RULES AND GUIDELINES 2021, <https://ladot.lacity.org/sites/default/files/documents/final-personal-delivery-devices-pdd-rules-and-guidelines.pdf> [<https://perma.cc/Q6AQ-H9JB>].

40-6-329.1(c).⁸⁸ Code section 40-6-329.1 limits local control by prohibiting local authorities from passing ordinances relating to “(1) [d]esign, manufacture, or maintenance of a [PDD]; (2) [l]icensing, registration, or certification of a [PDD]; (3) [taxation of a PDD] other than any property tax charges, business license fees, or occupation tax surcharges”; (4) insurance for a PDD; “(5) [t]ypes of cargo that may be transported by a [PDD]; (6) operations of [PDDs];” or (7) “restrict[ions] [of] access to any sidewalk, crosswalk, or public highway.”⁸⁹ In Georgia, local authorities have limited power to set PDDs’ operating hours on “sidewalks, bicycle lanes, bicycle paths, and shared use paths” so long as PDDs can still operate between sunrise and sunset.⁹⁰ Additionally, local authorities can restrict use of PDDs on government-owned or -operated land.⁹¹ By homogenizing PDD requirements across the state, Georgia is more market-friendly for delivery businesses that plan to deploy PDDs throughout the state because businesses will not have to deal with city-specific licensing requirements and fees.

Insurance Requirements

Most states that regulate PDDs require owners to carry insurance coverage worth at least \$100,000.⁹² Balancing concerns about safety and costly medical care with an interest in innovation, Georgia now

88. See 2022 Ga. Laws 543, § 2, at 549 (codified at § 40-6-329.1(c)); House Motor Vehicles February 23, *supra* note 28, at 45 min., 11 sec.

89. § 40-6-329.1(a).

90. § 40-6-329.1(b).

91. *Id.*

92. PDD Survey Report, *supra* note 75. States that require an insurance policy limit of \$100,000 include Arizona, Arkansas, Florida, Indiana, Louisiana, Maryland, Missouri, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Utah, Virginia, and Washington. *Id.*; ARIZ. REV. STAT. ANN. § 28-1228 (2022); ARK. CODE ANN. § 27-51-2108 (2022); FLA. STAT. ANN. § 316.2071 (West 2022); IND. CODE ANN. § 9-21-11.5-8 (West 2022); LA. STAT. ANN. § 32:210.7 (2022); MD. CODE ANN., TRANSP. § 21-104.5 (West 2022); MO. ANN. STAT. § 304.900 (West 2022); N.C. GEN. STAT. § 20-175.18 (2022); OHIO REV. CODE ANN. § 4511.513 (West 2022); OKLA. STAT. ANN. Tit. 47, § 1802 (West 2022); 75 PA. STAT. AND CONS. STAT. ANN. § 8519 (West 2022); TENN. CODE ANN. § 55-8-209 (2022); TEX. TRANSP. CODE ANN. § 552A.0010 (West 2021); UTAH CODE ANN. § 41-6a-1119 (West 2022); VA. CODE ANN. § 46.2-908.1:1 (2022); WASH. REV. CODE ANN. § 46.75.020 (West 2022). In contrast, Iowa requires a PDD owners to carry coverage worth at least \$500,000. IOWA CODE ANN. § 321O.8 (West 2022).

requires that PDD owners purchase insurance policies with coverage limits of at least \$250,000.⁹³

However, insurance concerns go beyond policy limits. Bruce Hagen, a personal injury attorney with Bike Law Georgia, raised a concern related to uninsured motorist coverage at the Senate Transportation Committee meeting.⁹⁴ Hagen explained that he advises bicyclists to purchase uninsured motorist coverage for their motor vehicles because that coverage “follows you wherever you go,” including while on a bicycle.⁹⁵ But the uninsured motorist statute, codified at Code section 33-7-11, applies only to delineated motor vehicles and since PDDs are not explicitly included in the Code section as a motor vehicle, they are excluded from this type of coverage.⁹⁶ Therefore, in the event a person’s medical bills from a PDD injury exceed the minimum coverage limits of \$250,000, that person may have no recourse because they would not be able to use uninsured motorist coverage to cover the difference.⁹⁷ Hagen also explained that while major players in the PDD market, such as Amazon or FedEx, would be able to afford an injury beyond \$250,000, pedestrians injured in excess of that amount may struggle with post-judgment collections from smaller companies that are testing new devices; these pedestrians would, again, have no recourse available under the current uninsured motorist statute.⁹⁸ Accordingly, Hagen recommended that the uninsured motorist statute undergo revisions during the next legislative session if time did not permit doing so during this session.⁹⁹ The committee effectively tabled the issue for a later session.

Safety Concerns

A primary concern with PDD legislation was public safety.¹⁰⁰ The first draft of the bill specifically addressed public safety by regulating

93. O.C.G.A. § 40-6-327(b) (2022).

94. Senate Transportation Committee Video, *supra* note 10, at 30 min., 50 sec. (remarks by Bruce Hagen, Partner, Hagen Roskopf (Bike Law Georgia)).

95. *Id.* at 31 min., 0 sec.

96. *Id.* at 30 min., 50 sec.; *see* § 33-7-11.

97. Senate Transportation Committee Video, *supra* note 10, at 31 min., 45 sec.

98. *Id.* at 33 min., 20 sec.

99. *Id.* at 32 min., 15 sec.

100. *Id.* at 39 min., 3 sec. (remarks by Keith Larson, Bicycle and Pedestrian Advocate, Bike-Walk

how PDDs operate.¹⁰¹ Specifically, the first draft capped PDDs' speed at ten miles per hour, prohibited PDDs from transporting hazardous materials, and required that PDD operators take precautions when operating on sidewalks.¹⁰² Many of the subsequent changes enacted by the House Committee on Motor Vehicles and the Senate Committee on Transportation also focused on PDDs and public safety.¹⁰³ For example, the substitutes reduced the speed limits for PDDs, added requirements that PDDs emit a sound when in proximity of an obstacle, required a braking system on PDDs, required that lighting be affixed to PDDs, and imposed weight limits on PDDs.¹⁰⁴

Further, modifications were made to protect the public in the event of a collision involving a PDD and a pedestrian, vehicle, or bicyclist.¹⁰⁵ For example, although less than what is required in other states, the required liability insurance coverage increased from \$100,000 to \$250,000, and PDDs must bear identifying information and a contact number in the event of an issue.¹⁰⁶ Additionally, a civil monetary penalty was created to respond to violations of this law.¹⁰⁷

Even with the modifications increasing public safety around PDDs, there were concerns that Georgia's infrastructure could not support PDDs' safe operation.¹⁰⁸ Sidewalks and roadways were the first infrastructure concerns raised.¹⁰⁹ Many areas in Georgia do not have

Fayette).

101. Video Recording of House Motor Vehicles Committee Meeting at 27 min., 16 sec. (Feb. 1, 2022) [hereinafter House Motor Vehicles February 1] (remarks by Rep. Todd Jones (R-25th)), <https://www.youtube.com/watch?v=OB2OAU4hOGA&t=1205s> [<https://perma.cc/HF6S-BBDW>].

102. *Id.* at 27 min., 28 sec.; *id.* at 29 min., 01 sec.

103. House Motor Vehicles February 23, *supra* note 28, at 34 min., 38 sec. (remarks by Rep. Todd Jones (R-25th)); Video Recording of House Proceedings at 3 hr., 48 min., 59 sec. (Apr. 4, 2022) [hereinafter House Proceedings April 4] (remarks by Rep. Todd Jones (R-25th)), https://www.youtube.com/watch?v=cIJX3X1oHfM&list=PLIgKJe7_xdLX5VWVrtpbG6FqqYKcefKgW&index=57 [<https://perma.cc/W6X4-NBGA>].

104. House Motor Vehicles February 23, *supra* note 28, at 36 min., 24 sec. (remarks by Rep. Todd Jones (R-25th)); House Proceedings April 4, *supra* note 103, at 3 hr., 48 min., 59 sec.

105. House Motor Vehicles February 23, *supra* note 28, at 37 min., 9 sec. (remarks by Rep. Todd Jones (R-25th)).

106. *Id.* at 36 min., 30 sec.; Senate Transportation Committee Video, *supra* note 10, at 15 min., 48 sec. (remarks by Rep. Todd Jones (R-25th)).

107. House Motor Vehicles February 23, *supra* note 28, at 37 min., 10 sec. (remarks by Rep. Todd Jones (R-25th)).

108. Video Recording of House Proceedings at 2 hr., 25 min., 51 sec., (Mar. 1, 2022) [hereinafter House Proceedings March 1] (remarks by Rep. James Beverly (D-143rd)), <https://www.youtube.com/watch?v=eyigkuP-8oI&t=700s> [<https://perma.cc/H8Z8-WN35>].

109. *Id.*

sidewalks and some existing sidewalks are cracked or narrow, which may impede PDD travel.¹¹⁰ Representative Don Parsons (R-44th) also expressed infrastructure concerns regarding cellular service because many of these AVs rely on a consistent 5G network, which has not yet been fully implemented in Georgia.¹¹¹

Lastly, some are concerned that the technology is too new and untested.¹¹² “We’re at the Model-T level of this type of development,” according to bill sponsor Representative Todd Jones (R-25th).¹¹³ Delivery robots are at the baseline of an “innovation curve” likely to see rapid advancement and provide many industries the opportunity to create a “delivery army” of robots.¹¹⁴ While Representative Jones predicts that such innovation will take place sooner rather than later, there are current limitations on how much PDDs can accomplish.¹¹⁵ AVs are not brand new, and field tests with PDDs have been ongoing in Georgia, yet there is concern for public safety when “things happen, and things go wrong” with PDDs.¹¹⁶ There are particular concerns for

110. *Id.* at 2 hr., 23 min., 30 sec. (noting how many areas in Georgia either have no sidewalks or the existing sidewalks are narrow); Virtual Interview with Rep. Don Parsons (R-44th) (July 6, 2022) [hereinafter Parsons interview] (on file with the Georgia State University Law Review) (observing how many sidewalks have cracks or holes and are not level).

111. Parsons Interview, *supra* note 110.

112. Video Recording of Senate Proceedings at 5 hr., 20 min., 5 sec. (Apr. 1, 2022) (remarks by Sen. Nikki Merritt (D-9th)), <https://www.youtube.com/watch?v=DDK-T6INyUY> [<https://perma.cc/BS8Q-SVC2>]; Parsons Interview, *supra* note 110 (noting the high number of AV crashes in the last year and the technology with AVs still having problems).

113. House Motor Vehicles February 1, *supra* note 101, at 24 min., 45 sec.

114. *Id.* at 24 min., 59 sec.; *id.* at 25 min., 40 sec.; House Motor Vehicles February 23, *supra* note 28, at 41 min., 34 sec. (remarks by Rep. Todd Jones (R-25th)); Jones Interview, *supra* note 12.

115. House Motor Vehicles February 1, *supra* note 101, at 24 min., 51 sec.; *id.* at 34 min., 10 sec. (noting that PDDs cannot deliver alcohol because they cannot yet check IDs); House Motor Vehicles February 23, *supra* note 28, at 42 min., 03 sec. (remarks by Rep. Todd Jones (R-25th) (noting that PDDs are not yet capable of leaving a package on a door step if a person is not home); Senate Transportation Committee Video, *supra* note 10, at 28 min., 33 sec. (remarks by Jeff Cleland, Senior Manager of State Transportation Policy, Amazon) (noting that for Amazon, currently PDDs can only reach two to four miles on one charge).

116. House Motor Vehicles February 23, *supra* note 28, at 45 min., 24 sec. (acknowledging various types of autonomous testing currently ongoing in Peachtree Corners’ Curiosity Lab); Senate Transportation Committee Video, *supra* note 10, at 27 min., 27 sec. (remarks by Jeff Cleland, Senior Manager of State Transportation Policy, Amazon) (noting that Amazon was conducting field tests in Georgia concurrently with consideration of HB 1009); House Motor Vehicles February 1, *supra* note 101, at 41 min., 23 sec. (remarks by John Watson, Worldwide Customer Engagement Lead, Digital Innovation, Amazon Web Services) (noting that Amazon is in beta stage of testing its PDDs in Georgia); Senate Transportation Committee Video, *supra* note 10, at 30 min., 33 sec. (remarks by Bruce Hagen, Partner, Hagen Rosskopf (Bike Law Georgia)) (expressing concern for bicyclists sharing the road and bicycle lanes and paths with PDDs).

individuals using sidewalks and pathways who are unable to avoid an oncoming PDD.¹¹⁷ Representative Parsons also expressed concern that PDD technology is too dependent on sensors; he foresaw possible malfunctions if sensors were dirtied or broken while operating on the roads, leading to improper PDD function and possible incidents with pedestrians.¹¹⁸ Moreover, PDD technology is expected to grow and change, which will require that HB 1009 change accordingly.¹¹⁹

Conclusion

The emergence of robots on Georgia’s roadways, bicycle paths, and sidewalks will not immediately be “the biggest robot distribution ever.”¹²⁰ HB 1009, however, will fundamentally change Georgia’s roadways forever. Joining about half of the states, Georgia will be on the map for innovative delivery services. Because technology moves more quickly than the law, it remains to be seen whether federal law will eventually preempt HB 1009. Even though the committee process yielded many revisions to address safety concerns, amendments to address future safety concerns are inevitable. Overall, HB 1009 addresses an industry need and gives creatives room to innovate. What will the world look like as humans learn to interact with robots? Only time will tell.

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117. Parsons Interview, *supra* note 110 (expressing concern that PDDs could run into someone and hurt them); Senate Transportation Committee Video, *supra* note 10, at 40 min., 57 sec. (remarks by Keith Larson, Bicycle and Pedestrian Advocate, Bike-Walk Fayette) (noting that emitting a sound does not reduce interactions between people and PDDs if an individual is deaf or hard of hearing); House Proceedings March 1, *supra* note 108, at 2 hr., 24 min., 11 sec.

118. Parsons Interview, *supra* note 110.

119. Senate Transportation Committee Video, *supra* note 10, at 21 min., 42 sec. (remarks by Chairperson, Sen. Frank Ginn (R-47th)).

120. I, ROBOT, *supra* note 1.

