

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

SZ DJI TECHNOLOGY CO. LTD.,

Plaintiff,

v.

TEXTRON SPECIALIZED VEHICLES INC.,

Defendant.

C.A. No.: 23-cv-55-JNR

**DEFENDANT'S OPENING BRIEF IN SUPPORT OF ITS MOTION TO DISMISS FOR
FAILURE TO STATE A CLAIM**

OF COUNSEL:

Jeffery S. Becker

Kurt Pankratz

Harrison Rich

BAKER BOTTS L.L.P.

2001 Ross Avenue, Suite 900

Dallas, Texas 75201

Telephone: (214) 953-6500

Facsimile: (214) 661-4896

Jeff.becker@bakerbotts.com

kurt.pankratz@bakerbotts.com

harrison.rich@bakerbotts.com

Kevin J. Meek

MCDERMOTT WILL & EMERY LLP

303 Colorado Street, Suite 2200

Austin, TX 78701

Telephone: (512) 726-2575

Facsimile: (512) 233-5216

kmeek@mwe.com

MCDERMOTT WILL & EMERY LLP

Ethan H. Townsend (#5813)

Daniel T. Menken (#6309)

The Nemours Building

1007 North Orange Street, 10th Floor,

Wilmington, DE 19801

Tel: (302) 485-3911

ehtownsend@mwe.com

dmenken@mwe.com

Attorneys for Defendant

Dated: June 7, 2023

TABLE OF CONTENTS

	Page
I. NATURE AND STAGE OF THE PROCEEDINGS	1
II. SUMMARY OF THE ARGUMENT	1
III. STATEMENT OF THE FACTS	2
A. The '116 Patent is about drawing restriction strips.	2
B. The '121 Patent is about managing restricted regions.	3
C. The '224 Patent compensates for a natural phenomenon using a natural law.	4
IV. ARGUMENT	4
A. The '116 Patent Is Patent-Ineligible	4
1. Step One: The '116 Patent claims are directed to an abstract idea.	4
2. Step Two: The '116 Patent claims do not recite an inventive concept.	7
3. The FAC's new allegations do not render the '116 Patent eligible.	9
B. The '121 Patent Is Patent-Ineligible	11
1. Step One: The '121 Patent claims are directed to an abstract idea.	11
2. Step Two: The '121 Patent claims do not recite an inventive concept.	14
3. The FAC's new allegations do not render the '121 Patent eligible.	15
C. The '224 Patent Is Patent-Ineligible	16
1. Step One: The '224 Patent claims are directed to an abstract idea.	16
2. Step Two: The '224 Patent claims do not recite an inventive concept.	19
3. The FAC's new allegations do not render the '224 Patent eligible.	19
V. CONCLUSION.....	20

TABLE OF AUTHORITIES

	Page(s)
CASES	
<i>Affinity Labs of Tex., LLC v. DIRECTV, LLC</i> , 838 F.3d 1253 (Fed. Cir. 2016).....	5, 12, 17
<i>Alice Corp. v. CLS Bank Int’l</i> , 573 U.S. 208 (2014).....	1, 7, 8, 19
<i>American Axle & Mfg., Inc. v. Neapco Hldgs. LLC</i> , 967 F.3d 1285 (Fed. Cir. 2020).....	17
<i>BSG Tech LLC v. Buyseasons, Inc.</i> , 899 F.3d 1281 (Fed. Cir. 2018).....	7
<i>Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n</i> , 776 F.3d 1343 (Fed.Cir.2014).....	6, 8
<i>DiStefano Pat. Tr. III, LLC v. LinkedIn Corp.</i> , 346 F. Supp. 3d 616 (D. Del. 2018).....	2
<i>Elec. Power Grp., LLC v. Alstom S.A.</i> , 830 F.3d 1350 (Fed. Cir. 2016).....	8, 14
<i>Int’l Bus. Machines Corp. v. Zillow Grp., Inc.</i> , 50 F.4th 1371 (Fed. Cir. 2022)	19
<i>Intellectual Ventures I LLC v. Capital One Bank (USA)</i> 792 F.3d 1363 (Fed Cir. 2015).....	5, 6, 13
<i>Intellectual Ventures I LLC v. Erie Indem. Co.</i> , 850 F.3d 1315 (Fed. Cir. 2017).....	14
<i>Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.</i> , 811 F.3d 1314 (Fed. Cir. 2016).....	15
<i>Parker v. Flook</i> . 437 U.S. 584 (1978).....	8, 17, 18
<i>Realtime Data LLC v. Array Networks Inc.</i> , 537 F. Supp. 3d 591, adhered to, 556 F. Supp. 3d 424 (D. Del. 2021).....	2, 9, 10, 11, 16
<i>Realtime Data LLC v. Kamarino, Inc.</i> , C.A. No. 1:19-cv-0350.....	10

RecogniCorp, LLC v. Nintendo Co.,
855 F.3d 1322 (Fed. Cir. 2017).....12

SAP Am., Inc. v. InvestPic, LLC,
898 F.3d 1161 (Fed. Cir. 2018).....1

Simio, LLC v. FlexSim Software Prods., Inc.,
983 F.3d 1353 (Fed. Cir. 2020).....10

Synopsys, Inc. v. Mentor Graphics Corp.,
839 F.3d 1138 (Fed. Cir. 2016).....10

Universal Secure Registry LLC v. Apple Inc.,
469 F. Supp. 3d 231 (D. Del. 2020), *aff'd*, 10 F.4th 1342 (Fed. Cir. 2021).....15

Vehicle Intelligence and Safety LLC v. Mercedes–Benz USA, LLC,
635 F.Appx. 914 (Fed. Cir. Dec. 28, 2015)6, 13

I. NATURE AND STAGE OF THE PROCEEDINGS

DJI's original Complaint accused Textron Specialized Vehicles Inc. of infringing U.S. Patent Nos. 11,462,116; 11,482,121; and 10,640,224. Textron moved to dismiss that Complaint for lack of patent eligible subject matter under 35 U.S.C. § 101. D.I. 17. Rather than respond to that Motion, DJI filed a First Amended Complaint that adds attorney arguments, quotes from the patents, and conclusory allegations directed to the § 101 issue. D.I. 21. But those additions do not make DJI's patents eligible for protection. Textron moves to dismiss the FAC for the same reason as before: DJI's patents do not claim patent eligible subject matter under § 101.

II. SUMMARY OF THE ARGUMENT

The Supreme Court established a two-part test for determining patent eligibility under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216-18 (2014). At Step One, the Court determines whether the claim is “directed to” an abstract idea. *Id.* at 218. At Step Two, the Court searches for an “inventive concept” that “ensure[s] that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* at 217-218. Step One looks at the “focus” of the claims, while Step Two “looks more precisely at what the claim elements add.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018).

The '116 and '121 Patents are ineligible under the *Alice* test. At Step One, the focus of both patents' claims is an abstract idea: forming a restricted region and triggering a response if a vehicle is determined to be near or within the restricted region. Forming restricted regions is an ancient human practice. For hundreds of years, police and other authorities routinely have formed restricted regions for public events and cordoned off crime scenes. These patents merely propose to automate these ancient human practices using computers, which inherently provide flexibility and speed but do not make them patentable. At Step Two, the claims do not include any elements that are significantly more than the abstract idea itself. For example, the '121 Patent claims

“storing” parameters about the restricted region if the user is authenticated and authorized, but storing is a conventional activity that does not supply an inventive concept.

The '224 Patent also is ineligible. At Step One, the claims are directed to the abstract idea of modifying a motor control input using a compensation amount based on a battery characteristic. The claims bear multiple hallmarks of abstractness, including functionally claiming a result instead of *how* to achieve the result and invoking a natural law (Ohm’s Law). At Step Two, the claims merely add the concept of “obtaining” a parameter, but that is merely routine data collection and is not enough to supply an inventive concept that is significantly more than the abstract idea itself.

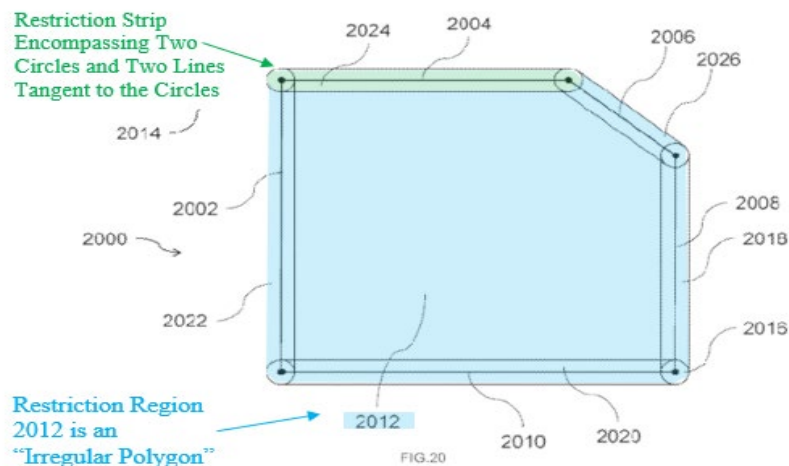
DJI’s added allegations in its FAC do not save its patents from ineligibility. The FAC adds “legal conclusions, quotations from the patents, and conclusory allegations” akin to allegations this District has found insufficient to render a patent eligible before. *Realtime Data LLC v. Array Networks Inc.*, 537 F. Supp. 3d 591, 605 (D. Del.), adhered to, 556 F. Supp. 3d 424 (D. Del. 2021); *DiStefano Pat. Tr. III, LLC v. LinkedIn Corp.*, 346 F. Supp. 3d 616, 626 (D. Del. 2018). As Judge Connolly recognized in *Realtime Data*, “not every § 101 determination contains genuine disputes over the underlying facts.” *Realtime Data*, 537 F. Supp. 3d at 604. “When there is no dispute of material fact, § 101 arguments may be resolved at the pleading stage.” *Id.* “Resolving eligibility on the pleadings minimizes ‘expenditure of time and money by the parties and the court’ and ‘protects the public’ from illegitimate patents.” *Id.* at 605. “The Federal Circuit has ‘repeatedly affirmed § 101 rejections at the motion to dismiss stage, before claim construction or significant discovery has commenced.’” *Id.* This is the type of case that should be resolved at the motion to dismiss stage because DJI’s patents are ineligible.

III. STATEMENT OF THE FACTS

A. The '116 Patent is about drawing restriction strips.

The '116 Patent is titled “Polygon Shaped Vehicle Restriction Zones.” Ex. 1 at Title. The

patent's "Background" explains that it "may be desirable to provide flight restriction zones in order to affect UAV behavior in certain regions," such as "near airports or important buildings." *Id.* at 1:22-25. Those zones "may best be represented by shapes, such as regular or irregular polygon shapes." *Id.* at 1:25-28. However, "a need exists for providing improved flight restriction zones that are irregularly shaped, and for providing associated flight response measures for UAVs within or near the flight restriction zones." *Id.* at 1:35-38. The '116 Patent purports to address that need by forming "restriction strips" along a boundary of a restriction region. *Id.* at 23:4-18. Figure 20 of the '116 Patent, copied below, shows multiple "restriction strips" forming a restriction region in the shape of an "irregular polygon":



B. The '121 Patent is about managing restricted regions.

The '121 Patent is titled "Open Platform for Vehicle Restricted Regions." Ex. 2 at Title. The '121 Patent aims to "provide a platform managing flight restriction regions for aerial vehicles." *Id.* at 1:32-34. "Such platforms may provide centralized management for inputting, managing, and accessing flight restriction regions." *Id.* at 1:34-36. "For example, the platforms may provide an interface for various users to input flight restriction regions, may aggregate the inputs and approve or deny proposed flight restriction regions, may record or store the flight

restriction regions, may display the flight restriction regions, may be downloaded and utilized by UAV operators (e.g., approve or deny a proposed flight path based on the flight restriction regions), or may be utilized in granting access to flight restriction regions (e.g., by temporarily lifting the restriction).” *Id.* at 1:36-45.

C. The ’224 Patent compensates for a natural phenomenon using a natural law.

The ’224 Patent identifies a naturally occurring phenomenon with batteries and motors, which is that “a voltage of the battery continuously decreases during the discharging process . . . [causing] the rotation speed of the motor [to] decrease.” Ex. 3 at 1:28-33. To compensate for that natural phenomenon of a draining battery, the ’224 Patent describes “[a] method for controlling a motor includes obtaining a present electrical parameter of a battery, calculating a compensation amount of a control signal of the motor according to the present electrical parameter, and modifying the control signal according to the compensation amount.” *Id.* at Abstract. But this is nothing more than an observation of Ohm’s law applied in the context of a draining battery supply to a motor. Ohm’s law states that the current through a resistor (*i.e.*, a motor) is proportional to the voltage supply across the resistor. It is an axiomatic application of Ohm’s law to observe that to maintain a constant rotational speed of a motor powered by a draining battery, that some compensation amount must be applied to the motor’s power input.

IV. ARGUMENT

A. The ’116 Patent Is Patent-Ineligible

1. Step One: The ’116 Patent claims are directed to an abstract idea.

Claim 1 is the ’116 Patent’s only independent claim and is directed to an abstract idea.

Claim 1 recites:

1. A method for supporting a vehicle restriction region, comprising:
receiving, via one or more processors, two or more points associated with the restriction region;

generating, via the one or more processors, one or more restriction strips along a boundary of the restriction region by connecting adjacent points of the two or more points, the one or more restriction strips defining at least a portion of the restriction region, wherein at least one of the restriction strips is configured to have an area encompassed by a first circle, a second circle, and one or more lines running tangent to the first circle and the second circle; and

automatically causing a ground vehicle to undertake one or more response measures based on at least one of a location or a movement characteristic of the ground vehicle relative to the restriction region.

“Stripped of excess verbiage,” the focus of the first two steps of Claim 1 is on forming a restricted region (*e.g.*, receiving information about the region and generating the restriction strips along a boundary of the region), while the focus of the last step is triggering a response if a vehicle is determined to be near or within the restricted region. *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1256-57 (Fed. Cir. 2016) (stripping claim of “excess verbiage” to arrive at focus of claim). Together, the focus of Claim 1 is the abstract idea of forming a restricted region and triggering a response if a vehicle is determined to be near or within the restricted region.

Claim 1 has multiple hallmarks of abstractness. First, Claim 1 is analogous to other claims that the Federal Circuit has held abstract. Functionally-recited steps involving receiving information, generating rules, and automatically triggering an event have long been held abstract. For example, in *Intellectual Ventures I LLC v. Capital One Bank (USA)*, the Federal Circuit held that claims directed to methods of storing user-selected limits on spending in a database and automatically triggering an event, such as a notification (*e.g.*, an alarm), were “not meaningfully different from the ideas found to be abstract in other cases before the Supreme Court and our court involving methods of organizing human activity.” 792 F.3d 1363, 1367 (Fed Cir. 2015). Similar to the storing and automatically triggering in that case, Claim 1 recites receiving user selected limits (*e.g.*, two or more points) on a restriction region and automatically triggering a response (which may merely be an “alert” as clarified in Claim 18). Claim 1 thus is not meaningfully

different from the claim found abstract in *Intellectual Ventures I LLC*.

The functionally-recited, results-oriented nature of Claim 1 also undermines the FAC's suggestion that Claim 1 is eligible because it provides "automatic control of a physical object." D.I. 21 at ¶ 15. The Federal Circuit's decision in *Vehicle Intelligence and Safety LLC v. Mercedes-Benz USA, LLC* illustrates this point. 635 F.App'x. 914, 916-17 (Fed. Cir. Dec. 28, 2015). There, the Federal Circuit invalidated a patent directed to "methods and systems that screen equipment operators for impairment, selectively test those operators, and control the equipment if an impairment is detected." *Id.* To be sure, the Federal Circuit explained that "equipment" in the patent included "vehicles." *Id.* at 916. The Federal Circuit held that the claims were directed to an abstract idea because—even though the claims provided for automatic control of a vehicle—they failed to "explain the nature of control to be exercised on the vehicle in response to the test results." *Id.* at 917. Here, Claim 1 suffers from the same deficiencies as the claim in *Vehicle Intelligence* because Claim 1 does not explain the nature of control to be exercised by or upon the ground vehicle other than generic, results-oriented "response measures."

Second, the focus of Claim 1 is a longstanding human practice. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (explaining that a patent claim is directed to an abstract idea when it involves a concept that is "well-known" and that "humans have always performed"). Forming a restricted region by drawing boundaries and sounding an alarm or other response if breached is a long-standing practice that humans have performed for ages. For example, restricted regions (such as country borders, castle walls, or blockaded ports) have long been drawn on maps and defended by authorities ready to sound the alarm (or fire a weapon to stop the intrusion) if the restricted region was breached or in danger of being breached. And using "restriction strips" to define a boundary has been a common

way to designate restricted areas—those strips are akin to drawing a boundary of a restricted area on a map. Merely reciting, as Claim 1 does, that the restriction strip has a shape—two circles connected by a line—does not make the claim any less abstract. Humans have been drawing similar shapes for ages. That type of shape could inherently be formed based on the region being restricted (*e.g.*, a street running between two roundabouts or a castle wall running between two circular towers) or the shape of the tool doing the marking (*e.g.*, a rounded marker drawing a straight line).

Dependent Claims 2-23 also are abstract. None of the dependent claims changes the focus of independent Claim 1. Claims 2-23 generally fall in one of four categories further describing: (1) the “restriction region” (Claims 2-11, 13, 22-23), (2) the “movement characteristic” (Claim 14), (3) what causes or comprises the “response measure” (Claims 12, 15-18, 20, 21), and (4) the “ground vehicle” (Claim 19). However, each of these claims merely adds non-technical variations or details to the same core abstract concept of the independent claim. As a result, the dependent claims also are directed to the same abstract idea as the independent claim.

Accordingly, Claims 1-23 of the ’116 Patent are directed to an abstract idea, and the Court should proceed to Step Two of the ineligibility analysis.

2. Step Two: The ’116 Patent claims do not recite an inventive concept.

The ’116 Patent claims do not recite an inventive concept that is “significantly more” than the abstract idea itself. *Alice Corp.*, 573 U.S. at 218. At Step Two, the analysis focuses on claim limitations *beyond* the abstract idea because the abstract idea itself “cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech LLC v. Buyseasons Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). There are three helpful guideposts for the Step Two analysis. First, claim limitations that recite conventional, well-known, and routine activities cannot supply an inventive concept. *Alice Corp.*, 573 U.S. at 222. Second,

implementing an abstract idea using generic computer technology does not save a patent at Step Two. *Id.*; see also *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016). Third, limiting a claim to a particular technological context also does not save a patent at Step Two. See, e.g., *Content Extraction*, 776 F.3d at 1348 (“At most, [the] claims attempt to limit the abstract idea of recognizing and storing information from hard copy documents using a scanner and a computer to a particular technological environment. Such a limitation has been held insufficient to save a claim in this context.”). These guideposts apply to Claim 1.

Looking beyond the abstract idea in Claim 1, the claim recites using conventional and generic computer components—“one or more processors”—to implement the abstract idea. The ’116 Patent description shows that the claimed processors are just off-the-shelf, conventional processors: “The processing unit 1104 can have one or more processors, such as a programmable processor (e.g., a central processing unit (CPU)).” Ex. 1 at 53:20-22. The patent does not describe or claim any improvement to those processors themselves. Instead, Claim 1 is using conventional processors as a tool to carry out the abstract idea. And that is not enough at Step Two.

Nor is Claim 1’s recitation of “automatically” causing a response to a “ground vehicle” enough at Step Two. A “ground vehicle” is indisputably generic and conventional: as with the claimed processors, the patent does not describe any improvement to the “ground vehicles” themselves. And applying the abstract idea—even if “automatically”—to a “ground vehicle” in the way Claim 1 does limits the abstract idea to a particular technological context. See *Parker v. Flook*, 437 U.S. 584, 594 (explaining that “the use of computers for ‘automatic monitoring-alarming’” does not render a patent eligible).

Dependent Claims 2-23 also fail to recite “significantly more” than the abstract idea itself:

- Category 1 (Claims 2-11, 13, 22-23): These claims all describe characteristics of the

“restriction region,” but the characteristics are themselves abstract and conventional (*e.g.*, that the claimed circles have the same radius) and cannot supply an inventive concept.

- Category 2 (Claim 14): Claim 14 describes conventional, routine, and well-known “movement characteristic[s],” such as velocity, acceleration, declaration, direction, and path.
- Category 3 (Claims 12, 15-18, 20, 21): These claims conventional, routine, and well-known causes of or actual response measures, such as causing a response measure based on distance. These response measures are subsumed within the abstract idea and cannot supply an inventive concept.
- Category 4 (Claim 19): Claim 19 recites that the “ground vehicle” has a “housing,” but that, of course, has long been conventional, routine, and well-known.

Accordingly, Claims 1-23 of the ’116 Patent do not recite “significantly more” than the abstract idea itself, and these claims all are ineligible under § 101.

3. The FAC’s new allegations do not render the ’116 Patent eligible.

DJI’s original Complaint lacked assertions that the claimed technology was inventive or improved upon existing technology. After Textron moved to dismiss, DJI amended its original Complaint in an apparent attempt to bolster the patent eligibility of its claims or create a factual dispute at Step Two. DJI’s amendments, however, do not render the ’116 Patent eligible.

First, DJI’s amendments add conclusory allegations that the Court can disregard. Judge Connolly’s decision in *Realtime Data LLC v. Array Networks Inc.* is instructive. 537 F. Supp. at 605. There, the plaintiff argued that 42 paragraphs in its amended complaint included relevant factual allegations that precluded dismissing its patents at the Rule 12 stage. *Id.* For example, the amended complaint alleged that “[t]he claims at issue here are not abstract, but rather limited to particularized technological solutions that improve computer capabilities—*e.g.*, digital data

compression systems to increase the capacity of a computer system to store or transfer data more efficiently.” *Realtime Data LLC v. Kamarino, Inc.*, C.A. No. 1:19-cv-0350, D.I. 18 at ¶ 16. The amended complaint also alleged that the patent “addresses problems that existed in the realm of digital data compression” and “solves [those] problems with novel technological solutions in digital data compression utilizing a plurality of different encoders, and optionally a compression descriptor, for accelerated storage and retrieval of data blocks.” *Id.* at ¶¶ 18-19. Judge Connolly, however, disregarded those allegations because they were “conclusory” and granted the motion to dismiss for lack of patent eligible subject matter. *Realtime Data*, 537 F. Supp. 3d at 605; *see also Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1365 (Fed. Cir. 2020) (addressing allegation of improved computer functioning in complaint under § 101 and stating “We disregard conclusory statements when evaluating a complaint under Rule 12(b)(6)”).

Those insufficient allegations are just like the ones that DJI added in its FAC. Like Realtime’s allegations about providing solutions to problems, DJI’s FAC alleges that the ’116 Patent “provides a specific technical solution to problems arising from the advent of automated vehicles,” “establishes a method of forming and enforcing irregularly shaped restriction regions . . . that overcomes problems arising from regularly shaped restriction regions that can be over or under inclusive of the restriction zone,” and “describe[s] and recite[s] a technical improvement to establishing the restriction region and a technical solution to preventing vehicles from breaching the restriction region.” *See, e.g.*, D.I. 21 at ¶¶ 15-16, 21; *see also id.* at ¶¶ 17-20, 22. These allegations are conclusory allegations that this Court can disregard just as Judge Connolly did in *Realtime Data*.

Second, DJI’s allegations are divorced from the claimed subject matter. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“The § 101 inquiry must focus on

the language of the Asserted Claims themselves.”). DJI alleges that the ’116 Patent “establishes a specific method of forming and enforcing *irregularly shaped restriction regions*” and that this method supplied technical improvements, such as “flexibility of delineating the location and shape of a restriction region.” D.I. 21 at ¶¶ 16, 18, 22. But Claim 1 does not recite anything about “irregularly shaped restriction regions.” Instead, Claim 1 recites “generating . . . one or more restriction strips along a boundary of the restriction region.” That language does not capture the “specific method” DJI alleges because the language only requires one “restriction strip[],” and one restriction strip cannot form an “irregularly shaped restriction region.”

Third, even accepting DJI’s allegations as true, the allegations illustrate that the ’116 Patent does not solve a technical problem. If, as DJI alleges, “regularly shaped restriction regions . . . can be over or under inclusive of the restriction zone,” then that type of problem is not technical. D.I. 21 at ¶ 16. Rather, that problem has long existed in ordinary human life. *See id.* at ¶¶ 19-20 (acknowledging that conventional systems prevented access to restriction regions through walls or fences). For example, a person may own irregularly shaped land, and the person’s fence may not perfectly match the shape of the land. Purportedly solving this non-technical problem does not render the ’116 Patent eligible.

B. The ’121 Patent Is Patent-Ineligible

1. Step One: The ’121 Patent claims are directed to an abstract idea.

Independent Claim 1 is directed to an abstract idea. Claim 1 recites:

1. A system for managing a restriction region, the system comprising:
one or more processors configured to:

receive one or more parameters of a designated restriction region for a ground vehicle, the one or more parameters being input by a user via a user interface, wherein the one or more parameters of the designated restriction region include at least a location associated with a private property;

authenticate an identity of the user to determine whether the user is

authorized to designate the restriction region;
in response to determining the user is authorized to designate the restriction region, store the one or more parameters of the designated restriction region to a database;
associate one or more response measures with the designated restriction region based on the one or more parameters; and
implement the one or more response measures to affect operation of the ground vehicle along a travel path when the ground vehicle is within or near the designated restriction region, by at least one of (a) forcing the ground vehicle to change direction and move away from the designated restriction region, (b) forcing the ground vehicle to stop, or (c) providing an alert.

Claim 1 is representative of the other three independent claims (18, 24, and 28) in the '121 Patent.

Those claims recite the same substance as Claim 1 with minor differences that do not render the claims non-abstract. *See* Appendix A (claim comparison chart).

Again “[s]tripped of excess verbiage,” the focus of Claim 1 is no different than the focus of Claim 1 of the '116 Patent. *Affinity Labs*, 838 F.3d at 1256-57. Like that claim, Claim 1 of the '121 Patent focuses on forming a restricted region (the “receive” and “associate” steps) and triggering a response if a vehicle is determined to be near or within the restricted region (the “implement” step). And, while Claim 1 may focus on that abstract idea, Claim 1’s recitation of the “authenticate” and “store” steps do not render the claim non-abstract because those steps themselves are abstract ideas. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract.”).

Federal Circuit case law confirms the abstractness of Claim 1. The Federal Circuit has long held that the steps of receiving, authenticating, associating and storing recited at such a high level are abstract ideas. *Intellectual Ventures*, 792 F.3d at 1367. Like the claim there, Claim 1 functionally recites steps of “receiving,” “authenticating,” and “associating.” These are all abstract concepts. That the claim “implement[s] . . . response measures to affect operation of the ground

vehicle” does not change the outcome, as the Federal Circuit has held abstract functionally-recited claims that “control the [car] equipment if an impairment is detected.” *Vehicle Intelligence and Safety*, 635 F.App’x. at 916-17.

Claim 1 also can be performed by a human—a hallmark of abstractness:

Claim Step	Human Activity
Receive one or more parameters of a designated restriction region	Military leader receives orders to secure an area or setup a checkpoint to restrict a roadway
Authenticate an identity of a user	Military leader authenticates the issuer of the orders (e.g., password, challenge/response)
Store the parameters of the restriction region to a database	If the orders came from an authorized person, military leader stores the orders in secure area of the base
Associate one or more response measures with the designated restriction region	Military leader sets protocol for secure area or checkpoint, which specifies how military unit responds to approaching vehicles
Implement the one or more response measures to affect operation of the ground vehicle	Military leader’s unit implements the response measures for the secure area or checkpoint (e.g., causing approaching vehicles to stop and/or turn around)

The ability for a human to perform the steps of Claim 1 illustrates that the claim is not directed to a technical solution, problem, or improvement. Rather, Claim 1 organizes human activity. That is why the first words in the claim recite a “system for *managing* a restriction region.”

The dependent claims do not change the focus of the independent claims in a way that renders any dependent claim not abstract. The dependent claims fall into particular categories that, at most, merely describe conventional and/or routine details of the “user interface” (Claims 2, 23, 25, 29), the “parameter” (Claims 4, 5, 6, 7, 27), “authorization” of the implementing step (Claim 3, 26, 30), authentication of the “identity” of a user (Claims 8, 9, 16, 17, 19, 20, 21), an “application hosted on a platform” (Claim 22), and a “database” (Claim 10-15). Accordingly, Claims 1-30 are directed to an abstract idea.

2. Step Two: The '121 Patent claims do not recite an inventive concept.

Representative independent Claim 1 does not recite “significantly more” than the abstract idea itself. Rather, Claim 1 implements the abstract idea using generic computer components. *Elec. Power Grp.*, 830 F.3d at 1355. Claim 1 recites “one or more processors,” a “user interface,” and a “database,” but the specification describes all of those concepts as generic and conventional. Ex. 2 at 46:9-11 (processor), 42:53-55 (user interface), 39:16-18 (database as a memory unit). Nothing in the patent describes improvements to any of that conventional technology. Again, as with the '116 Patent, Claim 1 is using conventional technology as a tool to implement the abstract idea rather than improving upon that technology.

Nor do any of the other limitations beyond the abstract idea supply an inventive concept. Claim 1’s “at least a location associated with a private property” and a “ground vehicle” are the technological context in which the abstract idea applies (i.e., only to a private property and a ground vehicle). The “one or more parameters of the designated restriction region” in Claim 1 limits the claim to a type of data, and nothing in the patent or the FAC assert that the claimed parameters are new or improved. And reciting types of “response measures” as in Claim 1 does not supply an inventive concept because each of the recited response measures is conventional, well-known, and routine activity. When a person or thing has entered a restricted region, conventional, well-known, and routine responses are to (1) change directions and move away from the region; (2) stop; or (3) provide an alert—just as Claim 1 recites. For example, these are commands that police routinely issue when a car attempts to enter a cordoned off area.

As explained above for Step One, the dependent claims can be grouped into categories. Each claim in those categories fails to recite “significantly more” than the abstract idea itself:

- Category 1 (Claims 2, 23, 25, 29): These claims recite generic and conventional details of the “user interface.” *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1331

(Fed. Cir. 2017) (implementing an interface in generic manner lacked an inventive concept).

- Category 2 (Claims 4, 5, 6, 7, 27): These claims describe the “parameter,” which is mere data that the patent does not claim is new or inventive.
- Category 3 (Claim 3, 26, 30): These claims implement a response measure based on whether a vehicle is “authorized” or not, which does not provide an inventive concept for the same reasons as the “authenticating” step.
- Category 4 (Claims 8, 9, 16, 17, 19, 20, 21): These claims recite conventional aspects of “authentication,” such as using a password and that the authenticated user is an owner or renter of the private property. *Universal Secure Registry LLC v. Apple Inc.*, 469 F. Supp. 3d 231, 240 (D. Del. 2020), *aff’d*, 10 F.4th 1342 (Fed. Cir. 2021).
- Category 5 (Claim 22): This claim recites a generic “application hosted on a platform,” which is conventional, well-known, and routine.
- Category 6 (Claims 10-15): These claims describe conventional and routine characteristics of a “database,” such as the database is “temporary,” “private,” “public,” “government,” and so on. *See Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (reciting a “database” with particular content did not supply an inventive concept).

Accordingly, Claims 1-30 of the ’121 Patent do not recite “significantly more” than the abstract idea itself, and these claims all are ineligible under § 101.

3. The FAC’s new allegations do not render the ’121 Patent eligible.

DJI’s new allegations for the ’121 Patent re-purpose many of the same allegations DJI used for the ’116 Patent. These allegations do not render the ’121 Patent eligible for largely the same reasons explained above.

At Step One, DJI’s allegations again are conclusory. DJI alleges that the “claims provide a specific technical solution,” but quote the functionally-recited claim steps of “receiv[ing],” “authenticat[ing],” “stor[ing],” and “implement[ing].” D.I. 21 at ¶ 27. That type of conclusory allegation does not make an ineligible patent eligible at the Rule 12 stage. *Realtime Data*, 537 F. Supp. 3d at 605.

At Step Two, DJI’s allegations of technical improvements are divorced from the claims. DJI parrots three of the same allegations it used for the ’116 Patent: “flexibility of delineating the location and shape of a restricted region . . . using the information in the database about the restriction regions to determine whether a vehicle is approaching or entering the restriction region . . . and automatically affecting the operation of the vehicle to ensure it does not enter the restricted region.” D.I. 21 at ¶ 32. But those concepts are not in the claims. For example, the claim does not provide the ability to delineate a restriction region, and the concept of “automatically” affecting vehicle operation is not recited. And the remaining concepts—authenticating and storing—are conventional concepts that cannot supply an inventive concept at Step Two.

Accordingly, there are no allegations that would preclude the Court from finding the ’121 Patent ineligible at the Rule 12 stage.

C. The ’224 Patent Is Patent-Ineligible

1. Step One: The ’224 Patent claims are directed to an abstract idea.

Claim 12, copied below and the only independent claim asserted in the FAC, is an eight-line claim that is directed to an abstract idea:

An apparatus for controlling a motor comprising:
 one or more processors configured to:
 obtain a present electrical parameter of a battery;
 calculate a compensation amount of a control signal of the motor
 according to the present electrical parameter; and
 modifying the control signal according to the compensation amount.

“Stripped of excess verbiage,” the focus of Claim 12 is the abstract idea of modifying a motor control input using a compensation amount based on a battery characteristic. *Affinity Labs*, 838 F.3d at 1256-57. There are multiple indicators of abstractness in Claim 12.

First, Claim 12 is functionally recited. Each of the claim elements recites a result without explaining *how* to achieve the result. The first step claims “obtain[ing]” a parameter without any details on how that parameter is obtained. The second step claims “calculat[ing]” a compensation amount without any details on *how* that calculation is performed. That the calculation is “according to the present electrical parameter” does not change anything: that language does not provide detail about the calculation itself and leaves open-ended how that parameter is used in the calculation. And the third step claims “modify[ing]” a signal without any details of how the modification is done or what the modification is.

Second, Claim 12 invokes a natural law—which is particularly problematic when the claim is functionally recited. “Claiming a result that involves application of a natural law without limiting the claim to particular methods of achieving the result” is the type of claiming that makes a patent ineligible. *American Axle & Mfg., Inc. v. Neapco Hldgs. LLC*, 967 F.3d 1285, 1295 (Fed. Cir. 2020) (collecting Supreme Court cases). The Supreme Court’s decision in *Parker v. Flook* exemplifies this principle. 437 U.S. 584 (1978). In *Flook*, the Supreme Court considered the patent eligibility of a method for updating alarm limits during catalytic conversion processes. *Id.* at 585. The method involved an initial step of measuring temperature, a second step of using a formula to calculate an updated alarm-limit value, and a final step in which the alarm limit is adjusted to the updated value. *Id.* The Supreme Court held that claim ineligible because the claim “d[id] not purport to explain how to select . . . any of the . . . variables” involved, or “purport to contain any disclosure relating to the chemical process at work, the monitoring of process

variables, or the means of setting off an alarm or adjusting an alarm system.” *Id.* at 586, 594.

Here, Claim 12 invokes Ohm’s law. Ohm’s law— $V=IR$ —states that voltage (V) is proportional to current (I) times resistance (R) in an electrical circuit. The patent recognizes that proportional relationship in the context of a battery and motor: as the battery voltage decreases during use, the voltage output to the motor (the resistor) decreases and causes a drop in motor speed (because of a drop in current that creates the motor’s speed). Ex. 3 at 1:28-33. Claim 12 leverages Ohm’s Law to calculate “a compensation amount” by which to modify the control signal of the motor. For example, the “compensation amount” may be an increased voltage that compensates for a dropped voltage, and the increased voltage allows the motor to maintain its speed (because the increased voltage will increase current and thus speed). *Id.* at 5:53-58. Claim 12’s invocation of a natural law using broad, functional language runs headlong into the Supreme Court’s prohibition against such claiming.

And Claim 12 is analogous to the ineligible claim in *Flook*. Claim 12’s first step of “obtain[ing]” of the parameter is analogous to *Flook*’s first step of “measuring temperature” as both collect information used in a subsequent calculation. Claim 12’s second step of “calculat[ing]” a compensation amount is like *Flook*’s second step of “calculate an updated alarm-limit value” as both involve calculating adjustments or updates. And Claim 12’s third step of “modify[ing]” the control signal is akin to *Flook*’s adjusting the alarm limit to the updated value as both involve changing something based on the calculations made. Just as the Supreme Court found the *Flook* claim ineligible, so too should the Court find Claim 12 ineligible.¹

The dependent claims do not change the focus of the independent claims and are directed

¹ Independent Claims 1 and 9 recite similar features as Claim 12 and are directed to the same abstract idea. See Appendix B (claim comparison between Claims 1, 9, and 12)

to the same abstract ideas as the independent claims. The dependent claims fall into particular groupings that, at most, merely describe conventional and/or routine details of the “parameter” (Claims 2, 10), “control signal” (Claim 3), an “electrical parameter detection circuit” (Claim 13, 14), timing of the abstract operations (Claims 4, 5, 6, 7, 11, 15, 16, 17), or the abstract idea itself (Claim 8). Accordingly, Claims 1-17 of the ’224 Patent fail step one of *Alice*.

2. Step Two: The ’224 Patent claims do not recite an inventive concept.

The independent claims do not recite an inventive concept. Beyond the abstract idea itself, the claims recite “obtain[ing]” a battery parameter, but that is routine data collection that cannot supply an inventive concept. Claim 12 only adds generic “processors” that carry out the abstract idea. Those processors cannot supply an inventive concept. *See* § IV.A.2. And independent Claims 1 and 9 do not even tie any of their steps to any particular computer technology or hardware, so they cannot be said to be an improvement to those things.

The dependent claims also do not recite an inventive concept. The dependent claims fall into particular groupings described above that merely describe conventional and/or routine details of the abstract idea and therefore do not recite an inventive concept. *See* § IV.C.1.

3. The FAC’s new allegations do not render the ’224 Patent eligible.

DJI’s new allegations at Step One and Step Two do not preclude granting Textron’s motion to dismiss. DJI’s Step One allegations cannot overcome the eligibility problem in DJI’s claims. Even where a complaint alleges inventiveness of a particular solution, those allegations are insufficient to survive a Rule 12 motion where the claim is functionally recited. *Int’l Bus. Machines Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1379 (Fed. Cir. 2022) (affirming dismissal of complaint under § 101 despite allegation that a “synchronizing” step was inventive because that step was functionally recited). Although DJI alleges that the ’224 Patent provides “technical solution[s]” (e.g., to the natural phenomenon of a draining battery), Claim 12 is so functionally

and generically recited that it does not capture any such “technical solution.” D.I. 21 at ¶¶ 34-37. And that is not the only problem with DJI’s Step One allegations. DJI’s allegations about technical solutions involving “anticipating and preventing fluctuations by determining a compensation amount for a future drop in battery voltage based on a current battery voltage and a voltage prediction model” and “real-time feedback” are not in any independent claims. *Id.* at ¶¶ 36-37.

DJI’s Step Two allegations suffer from similar problems. DJI alleges that the ’224 Patent “prevent[s] drops in motor rotation speed due to battery discharge while maintaining the same throttle signal, including anticipatory adjustments in real-time using preset voltage models.” *Id.* at ¶ 40. But those allegations, again, cannot overcome the functional recitation in the claims, nor are those concepts even captured in the independent claims (e.g., Claim 12 does not recite anything about maintaining the same throttle signal).

V. CONCLUSION

The FAC should be dismissed with prejudice because all claims in the ’116, ’121, and ’224 Patents are directed to ineligible subject matter.

MCDERMOTT WILL & EMERY LLP

OF COUNSEL:

Jeffery S. Becker (*pro hac vice*)
Kurt Pankratz (*pro hac vice*)
Harrison Rich (*pro hac vice*)
BAKER BOTTS L.L.P.
2001 Ross Avenue, Suite 900
Dallas, Texas 75201
Telephone: (214) 953-6500
Facsimile: (214) 661-4896
Jeff.becker@bakerbotts.com
kurt.pankratz@bakerbotts.com
harrison.rich@bakerbotts.com

Kevin J. Meek (*pro hac vice*)
MCDERMOTT WILL & EMERY LLP
303 Colorado Street, Suite 2200
Austin, TX 78701
Telephone: (512) 726-2575
Facsimile: (512) 233-5216
kmeek@mwe.com

Dated: June 7, 2023

/s/ Ethan H. Townsend

Ethan H. Townsend (#5813)
Daniel T. Menken (#6309)
The Nemours Building
1007 North Orange Street, 10th Floor,
Wilmington, DE 19801
Tel: (302) 485-3911
ehtownsend@mwe.com
dmenken@mwe.com

Attorneys for Defendant