LIABILITY AND ALLOCATION OF LIABILITY IN DRONE ACCIDENTS

Michael Spanel
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Chicago-Kent College of Law

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INTRODUCTION

Dora is a young entrepreneur with a passion for photography and the latest gadgets. A short while ago, Dora decided to combine her two passions by purchasing an unmanned aerial vehicle, more commonly referred to as a drone. Drones are aircraft without any pilots onboard that are typically controlled by a pilot on the ground. Many drones, including Dora’s drone, include a video camera that can also be controlled from the pilot.

After practicing and fiddling around with her Drone, Dora realized that she could take spectacular photographs of the city she lived in with her drone’s mounted camera. One day, Dora was able to capture footage of a large festival in a city park. She later sold this footage to the local news station. Quite impressed with her work, the news station accepted many other clips of events and happenings around the city from Dora and her drone. One day, however, while capturing footage she intended to submit to the news station, Dora’s drone suddenly hit a nearby automobile, completely destroying Dora’s drone. Realizing what had happened, Dora nervously ran over only to realize that her drone had severely damaged the parked car. “Oh my!” she gasped. “What’s going to happen now!?”

In addition to photography, drones are quickly becoming ubiquitous in agriculture, cattle and ranching, moviemaking, inspections and surveying, and everyday recreational enjoyment. Along with the proliferation of drones, though, comes the inevitability of drone-related accidents. These accidents raise a several legal concerns: Who is liable for the accident? How and why are they liable? If multiple
parties are liable, how is liability allocated? Although there currently exists little case law and legislation specifically addressing drone accidents, similar, already-existing law lays out an effective analytical framework for litigants.

This article focuses on the liability and allocation aspects of drone lawsuits by discussing three general theories of tort recovery for drone accidents. Part I evaluates the plausibility of designating drone operations as an abnormally dangerous activity, thus imposing absolute liability on a drone owner and operator in case of an accident. Part II addresses recovery for unreasonable drone operations under negligence theory causes of action. Finally, Part III discusses recovery for unreasonable design or manufacturing and inadequate warnings or instructions under strict products liability causes of action. When case law is required, the paper uses Illinois case law in order to maintain consistency.

I. ABNORMALLY DANGEROUS AND ULTRAHAZARDOUS ACTIVITIES

Commercial drones could potentially fall into a category of activity known in the legal profession as abnormally dangerous activities. Traditionally called “ultrahazardous” activities, abnormally dangerous activities include explosive work, building dams and reservoirs, and transportation of nuclear waste. These activities are considered so dangerous that the people engaging in them are responsible for any injuries or property damage that results from them. Section 520 of the Second
Restatement of Torts suggests that the following factors be considered in determining whether an activity is abnormally dangerous:

(a) existence of a high risk of some harm to the person, land or chattels of others;
(b) likelihood that the harm that results from it will be great;
(c) inability to eliminate the risk by the exercise of reasonable care;
(d) extent to which the activity is not a matter of common usage;
(e) inappropriateness of the activity to the place where it is carried on; and
(f) extent to which its value to the community is outweighed by its dangerous attributes.

With limited exceptions, such activities are subject to absolute liability, meaning that neither proof of negligence nor intent is necessarily required for a plaintiff to prevail on the merits of a case. Rather, only causation and injury are the necessary elements for a successful cause of action. Most importantly, though, many of the defendant’s affirmative defenses enjoyed in a strict liability lawsuit, including state-of-the-art and assumption of the risk, are eliminated, meaning that Dora in this paper’s Introduction will be subject to liability for the accident even if it was not her fault.

Since abnormally dangerous activities are subject to strict liability regardless of whether the person carrying on the activity exercised the utmost care to prevent an

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1 Restatement (Second) of Torts § 520 (1965).
2 Id.
3 See, e.g., Foster v. Preston Mill Co., 268 P.2d 645 (Wash. 1954) (finding that a frightened mink killing her kittens because of the noise of blasting operations is insufficient to justify liability under abnormally dangerous activity cause of action).
4 See Black’s Law Dictionary (10th ed. 2014), absolute liability.
5 See Foster, 268 P.2d at 645.
6 See Part III, supra, for more information on strict liability.
7 See Restatement (Second) of Torts §§ 523-524 (finding only assumption of the risk and contributory negligence as valid defenses to abnormally dangerous activity causes of action).
accident, a finding that the activity, including drone operations, is abnormally
dangerous can have significant implications in terms of liability and operational
decisions. A finding of liability simply because a drone was involved in an accident
could result in higher burdens on behalf of manufacturers, operators, owners, and
insurers while doing little to actually improve the safety of the public and the
property around drone operations.

The legal history of manned aircraft accidents is a rather notable argument in favor
of designation of drone operations as abnormally dangerous activities. Manned
aircraft were considered abnormally dangerous in the infancy of experimental
commercial flight. Section 520A of the Second Restatement of Torts in fact
specifically addresses aircraft liability concerns. Section 520A finds both the
aircraft operator and owner (if the owner authorized the operation) liable “[i]f
physical harm to land or to persons or chattels on the ground is caused by the
ascent, descent or flight of aircraft, or by the dropping or falling of an object from
the aircraft.” Currently, the Convention for the Unification of Certain Rules for
International Carriage by Air, more commonly known as the Montreal Convention,
finds strict liability up to a certain damage amount for accidents occurring on
international commercial flights, with additional damages imposed when liability is
actually established. Such a hybrid form of strict liability and negligence is

8 Restatement (Second) of Torts § 519 (1965).
9 Restatement of Torts § 520, cmt. g (1934)
10 Restatement (Second) of Torts § 520A (1965)
11 Id.
12 Article 17(1) states that “[t]he carrier is liable for damage sustained in case of death or bodily
injury of a passenger upon condition only that the accident which caused the death or injury took
strikingly similar to the high standard of safety levied on an abnormally dangerous activity.

Although early flight was subject to harsh liability laws, drone operations are not considered abnormally dangerous activities in any U.S. jurisdiction so far. It is unlikely that drone activities will be considered abnormally dangerous in the future as well. The commercialization of drones is strikingly different from manned flight in its history, risks, safety protocols, popularity, and application. Most importantly, current drones in use by enthusiasts are extremely small, light, and will cause minimal damage when compared to large commercial aircraft, thus reducing the impact of the first three factors in Section 520 of the Second Restatement of Torts. Second, drone operations are indeed already a matter of common usage. In fact, some analysts believe that over 200,000 drones are sold each month worldwide.\(^{13}\) Finally, drone operations have numerous applications, including land surveying, oil and pipeline maintenance, aerial photography and moviemaking, news broadcasts, crop dusting, and general recreational enjoyment.

In addition, there exist sufficient alternative causes of action that will insure that manufacturers, owners, and operators exercise the utmost care in commercial drone operations while at the same time adequately compensating for physical and property injuries due to improper drone use. Injuries caused by people who fly

drones recklessly or negligently will be able to recover from the operator under a negligence cause of action.\textsuperscript{14} Similarly, injuries because the drone was operated during bad weather will fall under operator negligence.\textsuperscript{15} Equipment malfunctions and poor designs fall under the theory of products liability.\textsuperscript{16} Finally, proximity dangers such as operating around manned aircraft, crowds of people, and buildings can be addressed through proper FAA regulations, the violation of which will constitute statutory liability.\textsuperscript{17}

Finally, it is important to note that many states have passed legislation finding liability for any and all accidents caused by drones.\textsuperscript{18} Potential litigants should take note of these states and their implications on liability of drone operators, owners, manufacturers, and sellers. Even if these statutes do not exist in a jurisdiction, other causes of action against manufacturers, sellers, owners, and operators do. One of these popular causes of action is negligent operation, which is discussed in the following Part.

\textbf{II. NEGLIGENCE FOR IMPROPER OPERATION OF A DRONE}

Improper operation of a drone, even though the drone itself is perfect, may result in a negligence cause of action if the improper operation causes personal injury or property damage. Like aircraft and automobiles, both causes of action sounding in

\textsuperscript{14} See Part I, infra.
\textsuperscript{15} See Part I, infra.
\textsuperscript{16} See Part II, infra.
\textsuperscript{17} See Part I, infra.
\textsuperscript{18} Sally French, \textit{Are Drones Illegal in your State? This Map Can Help You}, MARKET WATCH (June 25, 2014), available at http://blogs.marketwatch.com/capitolreport/2014/06/25/are-drones-illegal-in-your-state-this-map-can-tell-you/
simple negligence and statutory negligence result because drones are heavily dependent on humans as operators. Part I addresses both of these species of negligence and discusses what parties are liable and how liability is allocated between defendants.

A. Simple Negligence
The classic elements of negligence apply to drone accidents when a drone is improperly operated and causes an accident: breach of a duty, actual and proximate cause, and damages. Common examples of a breach of duty include failure to operate the drone safely and failure to maintain the drone properly. Exactly what constitutes these failures is difficult to define because determining liability in a negligence cause of action is heavily reliant on the specific facts of the case. For example, a finding that a drone crashed and started a fire in a barn is not enough to establish negligence, nor is it enough to allocate liability for the accident. More information is obviously needed. Similarly, more information is needed to determine liability in Dora’s accident detailed in the Introduction. Was a specific component of the drone faulty? Was a component modified by Dora? Was the car on private property? If so, did Dora have permission to fly over that property? Did Dora adequately check the equipment? Was Dora instructed by someone to fly near the barn? The list goes on...
B. Statutory Negligence

Violation of or compliance with statutes or regulations is helpful in determining whether a certain drone operation was negligent. Some states, including Illinois, find that violating a statute or regulation constitutes *prima facie* evidence of negligence, meaning that a statutory violation is not determinative of a finding of negligence, but rather is strong evidence of negligence. Other states go even further, ruling that violating a statute or regulation constitutes negligence *per se*, where negligence is “established as a matter of law, so that breach of the duty is not a jury question.” In these states, negligence *per se* conclusively establishes a breach of duty, leaving the plaintiff to only prove causation and damages and to overcome any affirmative defenses raised by the defendants. In contrast, *prima facie* negligence merely establishes a rebuttable presumption of a breach of duty. The Second Restatement also finds *per se* negligence when a statute or regulation is violated. Similarly, the Third Restatement of Torts states that “noncompliance with an applicable product safety statute or administrative regulation renders the product defective.”

Federal Aviation Regulations are particularly useful in applying the rules of *prima facie* and *per se* negligence to drone operations. On February 15, 2015 the FAA

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19 *Suvada v. White Motor Co.*, 51 Ill.App.2d at 334.
20 *Gradjelick v. Hance*, 646 N.W. 2d 225, 231, n. 3 (Minn. 2002) (finding that violation of a statute, ordinance, or regulation is conclusive evidence of duty and breach); *Black's Law Dictionary* (10th ed. 2014), negligence.
21 *RESTATEMENT (SECOND) OF TORTS § 502 (1965).*
22 *RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 4(a) (1998).*
released proposed rules for regulating the private use of drones.\textsuperscript{23} One of the proposed rules provides that drones may not be operated over any persons “not directly involved in the operation.”\textsuperscript{24} Assuming the proposed regulations are adopted, if a pilot flies a drone over a music festival and it crashes into the crowd due to a mechanical problem the pilot could not have avoided, the pilot would be liable because he violated the FAA regulation (although he may be able to seek some contribution or indemnity from the drone manufacturer due to the malfunction), even though the accident was the result of a mechanical failure the pilot had no control over.

Simply complying with applicable statutes and regulations is not enough to shield drone operators from liability, as compliance with an applicable statute or regulation may be considered, but is not definitive of a finding of nonliability.\textsuperscript{25} The Third Restatement of Torts: Products Liability contains a similar rule. It states that “compliance does not preclude as a matter of law a finding of product defect.”\textsuperscript{26,27}

\begin{itemize}
\item \textsuperscript{25}Evans v. Brown, 925 N.E.2d 1265 (Ill. App. 4th Dist. 2010).
\item \textsuperscript{26}RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 4(b) (1998).
\item \textsuperscript{27}For more information on products liability law in the field of drone use, sales, and operation, see Part III, supra.
\end{itemize}
The FAA is statutorily obligated to promulgate a comprehensive set of regulations regarding the safe use and operation of drones by October 2015, and indeed released a draft outline of regulations in February 2015. Although enthusiasts might be apprehensive that the regulations will stifle their ability to operate drones in the United States, and despite the rule that compliance is not definitive evidence of nonliability, establishing a set of rules will be invaluable in determining the limits in which drones may operate and in minimizing, or even preventing, liability.

C. Who is Subject to Liability in a Negligence Claim?

Liability for negligence is not limited to just the drone operator. Other people and entities may be liable as well. This Section addresses who exactly is liable for negligent operation of a drone. Separate sections address employee-employer and owner-operator liability in this paper because the relationship between the two is pervasive in the drone industry.

1. Generally

In classic negligence causes of action, the person responsible for the injuries is liable for injuries caused by the negligent act. This holds true for drone accidents. If a person negligently operates a drone and causes damage to property, they will be held liable for that damage. It does not mean that others will not be held liable too, however.

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29 Id.
2. Liability of Employees and Employers

As a general rule, principals are liable for the actions of their agents, a doctrine known as respondeat superior. According to the Third Restatement of Agency, “[a]gency is the fiduciary relationship that arises when one person (a ‘principal’) manifests assent to another person (an ‘agent’) that the agent shall act on the principal’s behalf and subject to the principal’s control, and the agent manifests assent or otherwise consents so to act.”[^30] In simpler terms, an agency relationship exists when there is assent, benefit, and control. If an agency relationship exists, principals are typically liable for an agent's conduct.

An employee is always an agent of the employer.[^31] Determining whether a principal-agency relationship exists between other business affiliations, including independent contractors, however, is less absolute the relationship between employee and employer. When looking at Dora’s situation in the Introduction, defining whether there is sufficient control by the news station seems a monumental task. The Third Restatement of Agency states that there is control when, “within any relationship of agency the principal initially states what the agent shall and shall not do, in specific or general terms. Additionally, a principal has the right to give interim instructions or directions to the agent once their

relationship is established.” In Illinois, control need not *actually* be exercised – the mere right to give the instructions or directions is sufficient.

Most pertinent in this analysis, however, is whether the news company has the power to control Dora and her drone activities. Here, the news company unlikely has any power to control. Under *Lang v. Silva*, Illinois requires evaluation of the following factors in determining whether a principal-agent relationship exists: 1) the power to control the manner in which the work is performed; 2) the privilege to discharge; 3) the method of payment; 4) whether taxes are deducted from the payment; 5) the level of skill required to do the work; and 6) the furnishing of the necessary tools, materials, and equipment, with the power to control being the most important factor.

Factor one weighs against agency as the news company has no power to control the manner in which Dora captures the footage. Factor two also weighs against agency since there is no contractual relationship between the news company and Dora; rather, Dora is paid only if the footage she submits is actually used by the news company. Similarly, factor three does not support agency – Dora is paid only after captures footage and only after she submits the footage and the news station accepts. There is no hourly or salaried compensation. Moreover, taxes are not

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32 Restatement (Third) of Agency § 1.01 cmt. f
35 Wendholdt, 447 N.E.2d at 407; Lang, 715 N.E.2d at 717; Commerce Bank, 775 N.E.2d at 300
deducted, thus factor five weighs against agency. Finally, since Dora supplies herself with all of the equipment, factor six will also weigh against agency.

3. Liability of Owners and Operators

Like automobile owners oftentimes let others operate their automobiles, drone owners let others operate their drones. Drone owners are typically not liable for the negligent operation of their drone by someone else.\(^36\) Therefore, if a drone owner lets a skilled drone operator borrow the drone, the owner will not be liable for the operator’s negligence. Two main exceptions exist: when the owner negligently entrusts the drone to another person, and when the owner negligently supervises the person operating the drone.

i. Negligent Entrustment

In a negligent entrustment cause of action, the owner is liable if “the [owner] gave another express or implied permission to use or possess a dangerous article or instrumentality that the [owner] knew, or should have known, would likely be used in a manner involving an unreasonable risk of harm.”\(^37\) Just as automobiles\(^38\) and aircraft\(^39\) can be operated such that they become a dangerous article or instrumentality, so can drones. The main inquiry here is the skill level of the person entrusted by the owner to operate the drone. Specifically, the two primary inquiries in a negligent entrustment analysis are “(1) whether the owner of the

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\(^{37}\) *Id.* at 45.

\(^{38}\) *Evans v. Shannon*, 776 N.E.2d 1184, 1190 (Ill. 2002).

\(^{39}\) *Garland*, 21 N.E.3d at 46.
vehicle entrusted the car to an incompetent or unfit driver, and (2) whether the incompetency was a proximate cause of a plaintiff’s injury.” Therefore, a drone owner could be liable for negligent entrustment where she lends a very inexperienced friend a drone and the friend operates the drone in the commercial district of a large city and crashes it into a person on the sidewalk.

ii. Negligent Supervision

In an action for negligent hiring, retention, or supervision of an employee, the plaintiff must prove: “(1) that the employer knew or should have known that the employee had a particular unfitness for the position so as to create a danger of harm to third persons; (2) that such particular unfitness was known or should have been known at the time of the employee’s hiring or retention; and (3) that this particular unfitness proximately caused the plaintiff’s injury.” Under this theory, the alleged wrongful act is the negligence in hiring, retaining, or supervising the employee. It is distinct from respondeat superior theory, which instead focuses on the employee’s tortious act.

D. How is Liability Allocated?

Once liability is established, the percent of liability must be allocated between each tortfeasor. In particular, issues of joint and several liability oftentimes arise

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40 Id. at 45.
41 Van Horne v. Muller, 705 N.E.2d 898, 904 (Ill. 1998).
42 Id. at 905.
43 Id.
between defendants. As with many issues in this paper, allocation is heavily dependent on the jurisdiction in which the action is brought.

1. Generally

In general, defendants are jointly and severally liable for damages in Illinois. The main exception to this rule applies to defendants that are less than 25% liable for the plaintiffs’ injuries. With some exclusions that are unlikely to apply to drone accidents, these defendants are jointly and severally liable for plaintiff’s medical and medically-related related expenses but are only severally liable for the plaintiffs’ other damages. Illinois’s under 25% liability rule can have major implications for litigants because a jointly and severally liable defendant is responsible for the entire damage award - even if the other defendants are unable to pay. A severally liable defendant, in contrast, is only liable for her own proportion of fault.

2. Allocation Between Employees and Employers

In the case of a drone accident, agents are typically liable for their tortious conduct unless an applicable statute provides otherwise. Liability of principals is not so simple. Under the Third Restatement of Agency, a principal is subject to direct liability, which is liability arising from a tortfeasor’s specific actions or omissions.

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44 735 ILL. COMP. STAT. 5/2-1117 (2008).
45 Id. (the exclusions primarily address medical malpractice causes of action).
46 Id.; Unzicker v. Kraft Food Ingredients Corp., 783 N.E.2d 1024 (Ill. 2002).
47 RESTATEMENT (THIRD) OF AGENCY § 7.01 (2006).
48 Id.
to a third party in three situations.\textsuperscript{49} Two situations are most relevant to drone operations: 1) when the agent acts with actual or ratified authority and the actions are tortious or the agent’s actions, if that of the principal, would subject the principal to tort liability, and 2) when the principal is “negligent in selecting, supervising, or otherwise controlling the agent.”\textsuperscript{50} An example of the first situation arises when an employer directs an employee to fly a drone dangerously close to nearby powerlines in order to inspect a client’s home for storm damage. If the drone strikes the powerlines, the employer is directly liable since she gave the directive to fly so close. The second situation arises when the agent is insufficiently qualified to operate a drone and the principal does not perform a background check on the agent’s qualifications.

A principal is subject to \textit{vicarious} liability, meaning “[l]iability that a supervisory party . . . bears for the actionable conduct of a subordinate or associate . . . based on the relationship between the two parties”\textsuperscript{51}, when the agent 1) is an employee and commits a tort while acting within the scope of employment, or when 2) the agent “commits a tort when acting with apparent authority in dealing with a third party on or purportedly on behalf of the principal.”\textsuperscript{52} Going back to the powerline example above, the employer will be vicariously liable because the employee was acting within the scope of employment when she flew the drone into the powerlines. In contrast, the employer will likely not be vicariously liable if the employee strike

\textsuperscript{49} \textit{Id.} at § 7.03.
\textsuperscript{50} \textit{Id.} at 7.03(1)(a)-(b).
\textsuperscript{51} \textit{Black’s Law Dictionary} (10th ed. 2014), liability.
\textsuperscript{52} \textit{RESTATEMENT (THIRD) OF AGENCY} § 7.03(2)(a)-(b) (2006).
powerlines when she uses her own drone to inspect storm damage to the roof of her own house outside of her normal work hours.

3. Indemnification Issues Between Employers and Employees.

Issues of indemnification may also arise in drone accidents. If only the employee is sued, may the employee seek indemnification from the employer? Generally yes, so long as the employee acted within the scope of his employment.\textsuperscript{53} But what if only the employer is sued? In this instance, the employer generally \textit{cannot} seek indemnification from the employee.\textsuperscript{54} Therefore, a business owner that uses drones may not seek redress from her employee for an accident that was caused employee operational negligence (assuming that the drone operation was within the scope of employment).

In summation, both unreasonable drone operation and drone operations that violate applicable statutes or regulations can expose both an operating employee and the employer to liability for negligent operation. The next Part addresses theories for recovery against manufacturers and sellers for injuries caused by defective products.

\textsuperscript{53} Id. at § 7.01.
\textsuperscript{54} Id. at § 7.01.
III. PRODUCT LIABILITY CLAIMS FOR DESIGN OR MANUFACTURING

DEFECTS AND INADEQUATE INSTRUCTIONS OR WARNINGS

Defective drones that cause injury or damage will be subject to products liability causes of action. The concept that a person that sells, designs, and/or manufactures a product that is in some way defective is subject to liability for any harm the product causes has been a fundamental aspect of American torts for over a century.\(^{55}\) Oftentimes credited to the venerable Judge Benjamin Cardozo, products liability establishes recovery for injuries due to defective and dangerous products both with and without contractual privity between the manufacturer and the injured party.\(^{56}\) Typically, products liability theories result in strict liability, meaning that the potential tortfeasor is liable for the injuries caused by the product even without proof of fault; e.g., even if all actions taken by the potential tortfeasor are reasonable.\(^{57}\) Therefore, drone manufacturers and sellers they may be found liable even when they exercise the utmost care in safety. There exist several ways to minimize risk and exposure, however. The most relevant ways are discussed in each section.


\(^{56}\) Previously, contractual privity between the injured and the manufacturer was required, with narrow exceptions. Winterbottom v. Wright, 152 Eng.Rep. 402 (1842). Judge Cardozo, in MacPherson v. Buick Motor Co., however, paved the way for one of the narrow exceptions to become the norm, thus allowing for recovery even without privity of contract. 217 N.Y. 382, 389 (N.Y. 1916) ("If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. Its nature gives warning of the consequences to be expected. If to the element of danger there is added knowledge that the thing will be used by persons other than the purchaser, and used without new tests, then, irrespective of contract, the manufacturer of this thing of danger is under a duty to make it carefully." (emphasis added)).

\(^{57}\) See id. at cmt. a.
A. Product Liability Generally

Three elements must be satisfied in order to recover for injuries caused by a drone accident under a product liability cause of action in Illinois: 1) that the injury was caused by a condition of the product, 2) that the condition was unreasonably dangerous, and 3) that the condition existed at the time it left the manufacturer's control.\(^{58}\) To evaluate whether the condition is unreasonably dangerous,\(^{59}\) Illinois employs two tests: the consumer-expectation test and the risk-utility test.

1. Consumer-Expectation Test

The consumer-expectation test allows the plaintiff to “introduce evidence that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner.”\(^{60}\) For example, a gun in *Taylor v. Gerry's Ridgewood*\(^{61}\) was found not unreasonably dangerous merely because it fired a bullet when the trigger was pulled; rather the court noted that firing a bullet was “precisely the operation of the product which, according to its function, is reasonably to be expected.”\(^{62}\) The court in *Mele v. Howdmedica*,\(^{63}\) on the other hand, found that an artificial hip that caused severe bone deterioration failed

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\(^{59}\) The terms “unreasonably dangerous” and “inherently dangerous” as used in products liability causes of action have very different legal meanings from the term “abnormally dangerous.” The concept of abnormally dangerous activities is a separate species of liability, distinct from products liability, and is discussed in detail in Part I, *supra*.

\(^{60}\) Id. at 336 (internal citations omitted).


\(^{62}\) Id. at 991. The Court in fact further opined that “had [the gun] failed to perform, such failure would have shown it to be defective . . . Only a defective person would fail to realize the obvious dangers associated with these actions.” Id. *See also Calles v. Scripto-Tokai Corp.*, 864 N.E.2d 249, 257 (Ill. 2007) (opining that a lighter was not unreasonably dangerous under the consumer-expectation test because it was reasonably foreseeable that a a lighter would start a fire).

\(^{63}\) 808 N.E.2d 1026 (Ill. App. 1st Dist. 2004).
to perform as an ordinary consumer (here an artificial hip recipient) would expect under the consumer-expectation test.\textsuperscript{64} Similarly, the court in \textit{Sobczak v. GMC}\textsuperscript{65} determined that a van was unreasonably dangerous under the consumer expectation test because the van ignited when the driver attempted to restart the car after the car stalled.\textsuperscript{66} Here, the court opined that the “ordinary consumer would expect his [van] either to start or not to start, but would not expect the interior of the van to ignite.”\textsuperscript{67} Litigants in products liability cases involving drones should undergo similar analyses as the above cases:

Did the drone operate as reasonably expected? Some DJI consumers complain that their drones will occasionally drift around uncontrollably, a phenomenon many users call “flyaway.”\textsuperscript{68} Some flyaways appear to be attributed to inadequate pre-flight checks by the users,\textsuperscript{69} yet some appear to be attributable to other undetermined problems. Such a phenomenon could expose DJI to liability if one of these flyaways causes injuries or property damage because the drone arguably did not operate as reasonably expected by the user.\textsuperscript{70}

Was the drone operated in a reasonably foreseeable manner? As stated in the Introduction, drones are used in a wide variety of applications, making drone

\textsuperscript{64} \textit{Id.} at 1038.  
\textsuperscript{65} 871 N.E.2d 82 (Ill. App. 1st Dist. 2007).  
\textsuperscript{66} \textit{Id.} at 93.  
\textsuperscript{67} \textit{Id.}  
\textsuperscript{69} Flyaways, \textit{supra}, n. 69.  
\textsuperscript{70} \textit{See Sobczak}, 871 N.E.2d at 93.
manufacturers and sellers potentially liable for injuries in a wide variety of activities. Drones also may be misused or abused in certain ways. If a reasonably foreseeable misuse causes injuries, the drone manufacturer/seller could be found liable under a consumer-expectation test.\textsuperscript{71}

2. Risk-Benefit Test

The risk-benefit test inquires whether “on balance the benefits of the challenged design outweigh the risk of danger inherent” in the product\textsuperscript{72} and allows, but does not require, the plaintiff to introduce evidence of an alternative design that is “economical, practical and effective.”\textsuperscript{73} These tests implicates that some products will always be inherently dangerous, no matter the alternative design, as their benefit to society is minimal. An example is a prank exploding cigar. The inverse is also true – highly beneficial designs with no available practical alternative designs may be insulated from product liability causes of action. Since the risk-utility test is primarily employed in design-defect cases, this paper further discusses safety features available to drones in the following section.

Three main theories of recovery exist under products liability doctrine: design defect, manufacturing defect, and failure to warn.\textsuperscript{74} Sections II.B-D discuss each of

\textsuperscript{71} See Lancaster v. Jeffrey Galion, Inc., 396 N.E.2d 648, 652 (Ill. App. 2d Dist. 1979) (finding that “unless the manner of operation was not reasonably foreseeable by the defendants, the alleged misuse is not a bar to recovery” (emphasis added)).

\textsuperscript{72} Mikolajczyk, 901 N.E.2d at 336 (internal citations omitted).

\textsuperscript{73} Id. (internal citations omitted).

\textsuperscript{74} RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 (1998)
these categories in turn. Finally, Section II.E and F evaluates possible defendants and the allocation of damages between them in product liability litigation.

**B. Design Defect**

As with all products, a drone is “defective in design when the foreseeable risks of harm posed by the [drone] could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the alternative design renders the [drone] not reasonably safe.”75 A drone designer is under no duty, however, to design a product incapable of causing injury,76 but rather is obligated to design its drone so as to avoid injuries from reasonably foreseeable uses and misuses77 while still maintaining design feasibility.78 A classic example of a product that cannot be designed such that it is incapable of causing injury is an automobile. Automobile operation will unavoidably result in collisions and accidents that will severely injure or kill people, but its societal benefits outweigh the costs of designing an injury proof car (currently). Conversely, a heavy drone with a short battery life and no built-in safety features79 could be unreasonably dangerous as it would be especially prone to losing charge in mid-flight and striking a passerby.

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75 *Id.* at § 2(b) (1998); see *Restatement (Third) of Torts: Products Liability* § 4(a) (1998) (providing that “noncompliance with an applicable product safety statute or administrative regulation renders the product defective”). For a more detailed analysis of noncompliance with statutes and regulations, see Part II, *supra*.


78 *Id.*

79 *See* pp. 24-27, *supra*, for an incomplete list of safety features integrated into current drone designs.
when it lands. The risk-benefit test is especially useful in determining whether a particular design is defective.

1. The Risk-Benefit Test in Design Defect Litigation

Evaluating a product liability cause of action under the risk-benefit test is particularly relevant in design defect cases because it allows both the defendant and the plaintiff to introduce evidence that the particular design was or was not the best design available. Many jurisdictions employ a state of the art analysis in determining whether a particular product design renders it unreasonably dangerous. “State of the art” is the “level of pertinent scientific and technical knowledge existing at the time of a product's manufacture, and the best technology reasonably available at the time the product was sold.”

Many jurisdictions include proof of state of the art as an affirmative defense. Although state of the art is not a defense in Illinois, it is powerful evidence weighing in favor of a finding that there were no feasible alternatives to the product design.

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80 Black’s Law Dictionary (10th ed. 2014), state of the art.
81 AM. JUR. 2D, Products Liability § 1319, at 472 (2008).
83 See Murphy v. Chestnut Mountain Lodge, Inc., 464 N.E.2d 818, 823 (Ill. App. 1st Dist. 1984) (finding that “feasibility includes not only the elements of economy, effectiveness and practicality but also the technological possibilities viewed in the present state of the art as shown by the opinions of experts or by the existence of safety devices on other products” (internal citations omitted); Sutkowski v. Universal Marion Corp., 281 N.E.2d 749, 743 (Ill. App. 3d Dist. 1972) (opining that the “possible existence of alternate designs introduces the feature of feasibility since a manufacturer’s product can hardly be faulted if safer alternatives are not feasible” and that “feasibility includes not only the elements of economy, effectiveness and practicality but also the technological possibility but also the present state of the art”).
2. Safety Features Integrated into Drones

A plethora of features and functions on drones exist, designed specifically to improve their operational safety with a minimum impact on performance and cost. Many of these safety designs are specific to the design, size, and weight of the craft. What works for one may not necessarily make another any safer. Integration of these safety features could be useful in determining that a drone is not unreasonably dangerous under the risk-utility test. Conversely, the absence of safety features could suggest that the drone is unreasonably dangerous under the risk-utility test.

Automated and Pre-Programmed Controls: Instead of joystick controls, some companies are instead moving towards the use of apps to maneuver and operate drones. These programs include functions that allow drones to take off, follow programmed flight paths, land autonomously, and follow the operator around. Some of these apps even allow the user to program the flight path by using his finger on a touch screen map, which then transmits the instructions from the touchscreen to the drone. Although some websites have suggested that it makes drones operations much easier and less dangerous, there is much room for

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85 Follow Your Lead, supra, n. 85.
86 Id.
improvement, however, as the drones using this software are still currently unable to sense or avoid obstacles.\textsuperscript{87}

**Recall and Land Functions:** The recall, or “return-to-home” function, causes a drone to return to its takeoff position.\textsuperscript{88} The recall function is automatic and is useful in situations where the drone is very far away, such as when the operator loses sight of the drone or when the controller loses connection with the drone.\textsuperscript{89} A more rudimentary, but similar, option is the emergency land function, which directs the drone to land immediately, wherever it is.\textsuperscript{90}

**Geo-Fencing:** Yet another preprogrammed function available on some drones, in particular those sold by DJI, is geo-fencing. Geo-fencing prevents drones from taking off or entering a particular airspace through GPS tracking.\textsuperscript{91} Although already in use by DJI drones around other “sensitive” locations, the concept of geo-fencing gained popularity after an off-duty employee of an intelligence agency crashed his friend’s drone into the White House lawn on January 26, 2015.\textsuperscript{92} Since then, DJI expanded its virtual fence to include a 15.5-mile radius around

\textsuperscript{87} Id.
\textsuperscript{88} Id.\textsuperscript{85}; Parrot AR Drone, supra, n. 85.
\textsuperscript{89} Id.
Washington, D.C. in order to prevent a similar or worse accident. DJI’s geo-fencing function also prevents its drones from crossing international borders and from entering the airspace around airports.

**Engine and Propeller Shutoff:** Some drone models come equipped with a program that immediately shuts off the propellers if a collision does occur, thus mitigating any injuries that may occur as a result of the spinning blades.

**Self-Destruction:** Another feature is a self-destruct option. The goal of this feature is turning a single large, relatively heavy falling object into many smaller, lighter, and less dangerous objects via a small explosive. A fascinating, albeit extreme, iteration of this concept is a drone made of mycelium spores that will disintegrate upon contact with water.

Drone self-destruct features, however, could render a drone even more dangerous. On July 17, 2013, for example, a military drone crashed and exploded near a Florida highway. The busy highway was forced to close for almost 24 hours because the drone contained a small self-destruct device. Drone manufacturers

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93 Grounded, supra, n. 92.
94 Id.
95 Bebop Drone, supra, n. 91.
98 Id.
should use discretion when determining whether to add a self-destruct feature, and if so, the configuration and size of the pyrotechnics.

**Emergency Parachute:** Drones can also come equipped with emergency parachutes in order to provide a safe landing, protect people on the ground, and prevent serious damage to the drone airframe.\(^9\) A cause for concern regarding these parachute is their weight, although it appears that the chutes and their deployment systems can be lightweight – some weigh as little as a few ounces.\(^10\) Many parachutes have the added benefit of being deployable from low altitudes. For example, parachutes manufactured by the company Galaxy GBS can be effectively deployed at altitudes as low as 5 meters.\(^11\)

**C. Manufacturing Defect**

A product contains a manufacturing defect when “the product departs from its intended design even though all possible care was exercised in the preparation and marketing of the product.”\(^12\) A manufacturing defect typically arises when something goes awry during the production or fabrication process. Manufacturing defects are subject to rigid legal rules, as liability may be imposed regardless of


\(^12\) **RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(a) (1998).**
measures taken to insure the product’s safety\textsuperscript{103} and without the need for proof of the precise nature of the manufacturing defect\textsuperscript{104} (although it may not be based upon speculation or conjecture\textsuperscript{105}).

These rules of manufacturing defects could have major implications in litigation arising out of drone accidents. Since drones are usually destroyed when they crash, it can be difficult to obtain useful data and evidence to determine the exact reason why the crash occurred. But a plaintiff does not necessarily need this missing evidence to be successful. If a plaintiff is able to show \textit{generally} that the drone crashed because of a manufacturing defect, the plaintiff will likely prevail.\textsuperscript{106}

\textbf{D. Inadequate Instructions or Warnings}

Instructions as to the proper use and operation of a product and warnings of specific potential hazards provide a user with notice, and can be used to insulate a drone manufacturer, seller, or member of the distribution chain\textsuperscript{107} from liability.\textsuperscript{108} Conversely, inadequate instructions and warnings can expose manufacturers, sellers, and other members of the distribution chain to liability: a product is “defective because of inadequate instructions or warnings when the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor, or

\textsuperscript{103} Id. at § 2, cmt. (a).
\textsuperscript{104} Id. at § 3.
\textsuperscript{105} McKenzie, 650 N.E.2d at 616.
\textsuperscript{106} \textit{Restatement (Third) of Torts: Products Liability}, § 3 (1998).
\textsuperscript{107} See Section II.E, \textit{supra}, for more information as to what entities are subject to liability under a products liability claim.
\textsuperscript{108} Sollami \textit{v. Eaton}, 201 Ill.2d 1, 19 (Ill. 2002).
a predecessor in the commercial chain of distribution, and the omission of the instructions or warnings renders the product not reasonably safe.”

In Illinois, warnings are inadequate if the warnings: “(1) do not specify the risk presented by the product; (2) are inconsistent with how a product would be used; (3) do not provide the reason for the warnings; or (4) do not reach foreseeable users.”

E. Who is subject to liability under a products liability claim?

The Restatement (2d.) of Torts §402A, which was adopted by Illinois in Suvada, dictates that:

(1) one who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if

   (a) the seller is engaged in the business of selling such a product, and

   (b) it is expected to reach the user or consumer in the condition in which it is sold.

Section 402A(1)(b) implicates that sufficient alterations to a drone precludes the injured party from recovering from the drone manufacturer, which is justified by the fact that the component part was altered when it was outside of the control of

109 RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(c) (1998); see Happel v. Wal-Mart Stores, 199 Ill.2d 179, 186 (Ill. 2002) (finding that a duty to warn exists where there is “unequal knowledge, actual or constructive [of a dangerous condition], and the defendant[,] possessed of such knowledge, knows or should know that harm might or could occur if no warning is given.” (internal citations omitted)).

110 Id.

111 210 N.E.2d at 187.

the original manufacturer. Therefore, any drone repairs or modifications to the drone may result in a finding of no liability as to a defendant drone manufacturer.

In addition, §402A is relatively vague as to the meaning of “seller.” A deeper inquiry into the Restatements and an evaluation of who is in the best position to prevent an injury sheds light on who a “seller” is.

1. Manufacturers

Manufacturers that sell unreasonably dangerous products typically are strictly liable under products liability doctrine.\(^{113}\) In the Introduction’s hypothetical, the manufacturer of Dora’s drone will be responsible for the automobile damage if a defect in the drone caused the drone careen into the car.

The following three sections address in further detail more sophisticated issues of manufacturer liability.

a. Component Part Manufacturers

Manufacturers of individual component parts of a larger product may be found liable if the component part caused the injury complained of.\(^ {114}\) Therefore, the manufacturer of a camera on a drone is not liable if a drone accident was caused by a malfunctioning engine. Here, the engine manufacturer is liable.

b. Assemblers

\(^{113}\) *Suvada*, 32 Ill.2d 612;

Entities that assemble a product can be found liable for injuries if the product assembly results in a dangerous condition. An assembler may seek contribution and/or indemnity from other tortfeasors, however. For example, in *Williams Machine & Tool Co.*, a lift assembling and manufacturing company was found liable under a strict products liability cause of action when employees were injured by a defective pump on a lift. The lift manufacturer’s insurer was able to bring a successful indemnity action against a component pump manufacturer because the pump caused the injury.

Drones comprise hundreds, if not thousands, of component parts, many of which were produced by manufacturers other than the company that puts together the final product. Drones parts likely include communication systems, cameras, structural support, actuators, engines, fuel cells, and payload. As an illustration of assembler liability, pretend that ABC Company manufactures commercial drones, but orders the already-completed processors, communication systems, rechargeable batteries from independent distributors. ABC Co. is liable if it causes an accident by improperly installing the communication system, which was built by Remote Corp., into its drones. Similarly, ABC Co. is liable if the communication system fails and causes a crash; however, ABC Co. will be able to seek contribution and/or

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116 *Liberty Mutual Ins. Co. v. Williams Machine & Tool Co.*, 338 N.E.2d 857 (Ill. 1975);
117 982 N.E.2d 776
118 *Id.*
119 *Id.*
120 *See Suvada*, 210 N.E.2d 182; *Baley*, 982 N.E.2d 776.
indemnity from Remote Corp. so long as the communication system was defective at
the time it left the hands of Remote Corp. 121

c. Installers
Installers of a defective product that was supplied by another are typically liable if
the defect was the result of defective or improper installation. 122 The United States
Court of Appeals for the Seventh Circuit, in interpreting Illinois products liability
law, reasoned that “(1) [installers] are not involved in the sale of the product, (2)
[installers] did not receive any profit from the placing of the defective product in the
stream of commerce, and (3) [installers lack] the purchasing power of a retailer or
distributor and therefore cannot exert pressure on the manufacturer to enhance
product safety.” 123 If the installer creates the defect, however, then the installer is
liable. 124 Therefore, a company that integrates faulty wiring into a drone that
results in a lost connection and an accident could be liable for any injuries or
damage.

2. Nonmanufacturing Defendants

In certain circumstances, even nonmanufacturing defendants may be found liable
under products liability causes of action.

121 See Williams Machine & Tool Co., 338 N.E.2d 857.
122 See Winters v. Fru-con, Inc., 498 F.3d 734 (7th Cir. 2007); Hinojasa v. Automatic Elevator Co., 92
Ill.App.3d 351 (Ill. App. 1st Dist. 1980).
123 Winters, 498 F.3d at 745.
124 See Court v. Grzelinski, 379 N.E.2d 281 (Ill. 1978) (finding an auto-dealer that defectively
assembled, installed, and positioned a gas tank liable); Brannon v. Southern Ill. Hosp. Corp., 386
N.E.2d 1126 (Ill. App. 5th Dist. 1978) (finding liability where a subcontractor installed a dumbwaiter
but failed to remove a bar marked for removal);
a. Apparent Manufacturers and Licensors

An entity that holds itself out as an apparent manufacturer is liable under products liability doctrine if the entity derives economic benefit from the marketing of the product. Furthermore, the relevant inquiry in determining whether an entity is an apparent manufacturer is whether the entity’s “advertising was such as to lead a reasonable purchaser to believe that the defendant, and not some other party, was the actual manufacturer.” For similar reasons, licensors may be held liable as well. For purposes of nonmanufacturing defendants in a products liability cause of action, licensors are entities that authorize the use of one or more of their identifying marks, such as a trademark.

Under the apparent manufacturer rule, a hobby shop that advertises itself as a manufacturer of a brand of unreasonably dangerous drones it sells in the store is liable under a products liability cause of action – even if the shop does not actually manufacture or design the drones in question.

b. Wholesalers and Distributors

Since wholesalers and distributors typically 1) derive a significant profit from the sale of defective products, 2) are in a position to prevent a defective product from

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125 See Hebel v. Sherman Equip., 92 Ill. 2d 368 (Ill. 1982); Connelly v. Uniroyal, Inc., 75 Ill.2d 393 (Ill. 1979); In re Quantum Chem., 1995 WL 758129 (N.D. Ill. 1995).
126 Hebel v. Sherman Equip., 92 Ill.2d 368, 377 (Ill. 1982) (finding apparent manufacturers strictly liable under a theory of estoppel).
127 See Connelly, 75 Ill.2d. at 411-412.
128 See, e.g., Id. at 411.
129 See Crowe v. Public Building Commission, 74 Ill.2d 10, 13 (Ill. 1978); Skinner v. Reed-Prentic Div. Package Machinery Co., 70 Ill.2d 1, 25 (Ill. 1977).
entering the market,\textsuperscript{130} and 3) are in a better position than consumers to spread the risk of loss resulting from the defective product,\textsuperscript{131} wholesalers and distributors of unreasonably dangerous drones are generally liable under products liability doctrine.\textsuperscript{132} Similarly, wholesalers and distributors of component drone parts generally are liable if the component is defective.\textsuperscript{133}

c. Occasional and One-time Sales

Products liability doctrine typically only applies to commercial sellers, dealers, and manufacturers who are in the business of selling or distributing the type of product that harmed the injured party.\textsuperscript{134} In general, noncommercial sellers and distributors are not liable if the product malfunctions.\textsuperscript{135} Therefore, the private owner of drone may sell it to another without risk of a products liability suit.\textsuperscript{136} Similarly, drone operators do not open themselves up to a suit when selling their used drone. Sufficient alterations to the drone, however, may render it unreasonably dangerous and nullify any immunity that the noncommercial seller may have had.\textsuperscript{137}

As an example, imagine that John Doe purchased X-Drone from XYZ Co. for his photography business. Mr. Doe, however, was unaware that X-Drone had a

\textsuperscript{130} See Hammond v. North American Asbestos Corp., 97 Ill.2d 195, 206 (Ill. 1983); Crowe, 74 Ill.2d at 13-14 (Ill. 1978).
\textsuperscript{131} See Crowe, 74 Ill.2d at 14.
\textsuperscript{132} See Suvada, 32 Ill.2d 612; Restatement (Third) of Torts: Products Liability § 1 (1998).
\textsuperscript{133} Id. at § 5(a)
\textsuperscript{134} See Id. at § 1, cmt. (c).
\textsuperscript{135} See Id.
\textsuperscript{136} Id.
\textsuperscript{137} Mikolajczyk, 901 N.E.2d at 329.
problem in that its propulsion system could easily fail if it remained in the sun for too long, causing the drone to smash into the ground catastrophically. Mr. Doe used the drone for several months until he bought a larger model and sold X-Drone to Jane Smith. Mr. Doe is not liable for any injuries if the propulsion system in X-Drone fails after he sold it to Mrs. Smith.

d. Successor Companies

Some states have adopted a “product line” approach that extends liability to successor companies and corporations.\textsuperscript{138} Illinois and the Third Restatement of Torts are less inclined to find successor companies strictly liable for their predecessor entities, however, and reject the “product line” approach and instead finds successor companies liable only if: “(1) where there is an express or implied agreement of assumption; (2) where the transaction amounts to a consolidation or merger of the purchaser or seller corporation; (3) where the purchaser is merely a continuation of the seller; or (4) where the transaction is for the fraudulent purpose of escaping liability for the seller's obligations.”\textsuperscript{139}

As an example, assume that in the near future DJI is bought out by another company, Drone Incorporated. Depending on the jurisdiction, Drone Inc. may or

\textsuperscript{138} See, e.g., Ray v. Alad Corp., 19 Cal.3d 22 (Cal. 1977); Turner v. Bituminous Casualty Co., 397 Mich. 406 (Mich. 1976); Ramirez v. Amsted Industries, Inc., 86 N.J. 332 (N.J. 1981). Note that even the “product line” approach is subject to certain caveats. For example, California extends liability under the product line approach only if “(1) no adequate consideration was given for the predecessor corporation's assets and made available for meeting the claims of its unsecured creditors; or (2) one or more persons were officers, directors, or stockholders of both [the predecessor and successor] corporations.” Ray, 19 Cal.3d at 29.

may not be liable for any unreasonably dangerous drones produced by DJI, even before the purchase. Potential litigants should take note of where parties may bring suit in order to adequately prepare.

F. Allocation of Damages in a Products Liability Cause of Action

Typically, allocation of damages between defendants follows the same analysis detailed in Part II of this paper. One notable difference exists, however. Section 2-621 of the ILCS, commonly referred to as the “distributor statute,” may provide nonmanufacturing defendants an effective defense when an injured party files a products liability suit against them.140 In pertinent part, §2-621 requires that a court dismiss “a product liability action based on any theory or doctrine against the certifying defendant or defendants” once the plaintiff has filed a complaint against the manufacturers and the manufacturers have or are required to answered or otherwise pleaded.141

Three very pertinent exceptions to the distributor statute exist: the defendant (1) “exercised some significant control over the design or manufacture of the product,” (2) “ha[d] provided instructions or warnings to the manufacturer relative to the alleged defect in the product,” or (3) “had actual knowledge of the alleged defect, or that the defendant created the alleged defect in the product.”142 Furthermore, a court may vacate an order of dismissal of a manufacturing defendant if “the

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140 735 ILL. COMP. STAT. § 5/2-621 (2008).
141 Id.
142 Ill. Pattern Jury Instructions Section 400 pages 2-3 of 32, available at https://www.state.il.us/court/CircuitCourt/CivilJuryInstructions/400.00.pdf; see 735 ILL. COMP. STAT. 5/2-621(c)(1)-(3) (2008).
applicable period of statute of limitation or statute of repose bars the assertion of a cause of action against the manufacturer or manufacturers of the product allegedly causing the injury; or . . . the identity of the manufacturer given to the plaintiff by the certifying defendant or defendants was incorrect\(^\text{143}\) [:] . . . or . . . the manufacturer no longer exists, cannot be subject to the jurisdiction of the courts of this State, or, despite due diligence, the manufacturer is not amenable to service of process; or . . . the manufacturer is unable to satisfy any judgment as determined by the court; or . . . the court determines that the manufacturer would be unable to satisfy a reasonable settlement or other agreement with plaintiff.”\(^\text{144}\)

Going back to the hypothetical in the Introduction, if the Dora’s drone accident was caused by a defective part, Dora may start out by filing suit against both the manufacturer and the wholesaler. Once the manufacturer is a proper party to the action, the wholesaler of Dora’s drone may be dismissed under § 2-621. If Dora cannot locate the manufacturer, Dora’s suit against the wholesaler may not be dismissed under § 2-621.

**CONCLUSION**

As drone use proliferates, drone accidents are becoming more pervasive and are garnering more attention in the news. And with accidents come lawsuits. Although drone manufacturers, sellers, owners, and operators are unlikely to become subject

\(^{143}\) However, “[o]nce the correct identity of the manufacturer has been given by the certifying defendant or defendants the court shall again dismiss the certifying defendant or defendants.” 735 ILL. COMP. STAT. 5/2-621(b)(2) (2008).

\(^{144}\) 735 ILL. COMP. STAT. §5/2-621(b) (2008).
to absolute liability in the event of a drone accident, they may still be liable *via* other causes of action. Both drone owners and operators could be exposed to liability if the drone is operated dangerously or if the operation violates an applicable statute or regulation. Similarly, litigants should take note of applicable products liability causes of action for faulty designs and manufacture and for inadequate warnings and instructions in case of a drone accident. There exists little case law directly addressing drone lawsuits for physical injuries or property damage. As drones become more ubiquitous throughout the United States, expect the case law to build in the near future.