Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

Munich local division
UPC_CFI_492/2025
UPC_CFI_1309/2025

Decision

of the Court of First Instance of the Unified Patent Court,
Munich division

17 August 2026

Headnotes:

1. It is permissible to make a counterclaim for revocation conditional upon a finding of patent infringement.
2. The transition from an unconditional counterclaim for revocation to one that is conditional upon the fulfilment of a procedural requirement (i.e. a finding of patent infringement by the court) further means that the counterclaim is (and remains) unconditionally limited in accordance with Rule 263(3) of the RoP.
3. If, in accordance with the counter-claimant's application, no decision is taken on the counterclaim for revocation, the counter-claimant must, in principle, bear the costs of the counterclaim for revocation.

Keywords:
Procedural condition for a decision on the counterclaim for revocation; bearing of costs

Claimant/COUNTER-DEFENDANT

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DEFENDANT/COUNTER-CLAIMANT

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2) **Roborock Germany GmbH**,
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PATENT AT ISSUE

EP 3 030 943

Panel/CHAMBER:

Panel 1a of the Munich local division.

JUDGES INVOLVED:

This decision was delivered by the presiding judge, Dr Zigann, the legally qualified judges Pichlmaier and Dr Schober (judge-rapporteur), and the technically qualified judge Dumont.

LANGUAGE OF THE PROCEEDINGS: German

ORAL HEARING: 23 June 2026

PLEADINGS BY THE PARTIES

- Claimant's claim dated 3 June 2025
- Preliminary objection by the first to third defendants dated 26 August 2025
- The claimant's response to the preliminary objection dated 9 September 2025
- Statement of defence and counterclaim for revocation by Defendants 1) to 3), each dated 27 October 2025
- Reply to the defence and reply to the counterclaim for annulment by the Claimant, together with an application for amendment of the patent at issue, dated 5 January 2026
- Duplicate reply to the Claimant's reply, as well as a reply to the application for annulment and a defence to the application for amendment of the patent at issue by Defendants 1) to 3), each dated 5 March 2026

SUBJECT MATTER
Action for infringement and (conditional) counterclaim for declaration of invalidity

BRIEF STATEMENT OF THE FACTS:

1. The claimant is suing Defendants 1) to 3) for infringement of its European patent EP 3 030 943 (in particular claims 1 and 10) entitled
'Method for operating a floor cleaning appliance and floor cleaning appliance' (hereinafter: the patent at issue) in Germany and France. It takes the view that the products of Defendants 1) to 3), in particular those from the Roborock S8 series, the Q series, the Qrevo series and the Saros series, infringe the patent at issue.

2. The patent at issue was filed on 6 August 2013. The application was published on 15 June 2016 and the patent was granted on 7 October 2020. The patent at issue is in force in various UPC Agreement member states (including Germany and France).

3. The claimant is an IP licensing service provider. It has been the registered proprietor of the patent at issue for Germany since 24 March 2025 and for France since 14 February 2025. It

derives its standing to sue from the assignment agreement of 20 December 2024 with RoTrade Asset Management GmbH, which acquired the patent at issue from RobArt GmbH on 12 December 2023 as part of the winding-up of the latter's insolvency proceedings. The assignment agreement is said to cover, in particular, claims for damages and compensation arising prior to the conclusion of the contract (see Annex CBH-11).

4. The first defendant is a Chinese public limited company with its registered office in Beijing, which manufactures the robot vacuum cleaners that are the subject of the action in the People's Republic of China and supplies them to its regional distribution companies. It is also the issuer of the EU declarations of conformity for the contested embodiments. Defendant 2) is a German GmbH and the European distribution company of the Roborock Group, responsible, amongst other things, for Germany and France. Defendant 3) is a Dutch B.V. and another company within the Roborock Group which – like Defendant 2) – imports the contested embodiments from China into the EU for distribution in Germany and France; it is also the European representative of Defendant 1) within the meaning of the EU Declaration of Conformity.

5. Defendants 1) to 3) raised a preliminary objection regarding the jurisdiction of the UPC. On the merits, they contested the allegation of patent infringement and, at the same time as filing their statement of defence, lodged a counterclaim seeking the revocation of the patent at issue. In their statement of defence, they also requested that enforcement of the decision be made conditional upon the provision of security. This was because the claimant was challenging several product ranges, which posed a considerable financial risk to them, and they might be left to bear the costs of enforcement themselves.

6. Defendants 1) to 3) base their counterclaim for revocation on the lack of novelty and lack of inventive step of the patent at issue (Article 138(1)(a) in conjunction with Articles 54 and 56 EPC), as well as on an inadmissible extension (Article 138(1)(c) in conjunction with Article 123(2) EPC). The lack of novelty is alleged in relation to KR 10-2005-0012118 A (D1); the same applies with regard to the lack of an inventive step (also in combination with DE 102011006062 A1 [D2] or with EP 2 592 518 A2 [D3]). Since the original disclosure emphasises that the floor cleaning device not only checks whether the features found are present in the stored maps, but also—or as a result—determines in which room it is located, whereas claim 1 simply omits the purpose of the check and is limited to a comparison of features, the original disclosure is exceeded. Features 1.4 and 1.5 have thereby been unlawfully amended, because claim 1 contains no provision specifying in which room the floor cleaning device is located. Furthermore, a determination during the execution of the cleaning task (i.e. not prior to execution) in accordance with feature 1.6 is also not

originally disclosed.

APPLICATIONS OF THE PARTIES (abridged version):

Action for infringement

7. The claimant requests that

I. A declaration that the patent at issue has been infringed.

II. that Defendants 1) to 3) be ordered, on pain of a recurring penalty payment of up to EUR 1,000 for each product, to refrain from

(1) offering, placing on the market or using, or importing or possessing for these purposes, in the Federal Republic of Germany and the French Republic, self-propelled and self-steering floor cleaning machines for carrying out the method according to any of claims 1–4, 6–8 of the patent at issue, comprising […], where the control unit […]

(2) offering for use and/or supplying, in the Federal Republic of Germany and the French Republic, self-propelled and self-steering floor cleaning machines which are suitable for carrying out a method for operating a self-propelled and self-steering floor cleaning machine, wherein […];

(3) to offer for use and/or supply, in the Federal Republic of Germany and the French Republic, software which is capable of operating a self-propelled and self-steering floor cleaning machine as referred to in Section II.1 and/or of applying a method as referred to in Section II.2.

III. Defendants 1) to 3) are further ordered, within a period of 45 days of service of the judgment in accordance with Rule 118.8 of the RoP,

- to provide the Claimant, in a statement structured by calendar month and by patent-infringing products, in a format suitable for electronic analysis, with information on the extent to which they have committed the acts referred to in II. above since 15 June 2016, for the purpose of calculating the damages to which the Claimant is entitled, including the defendant's profits from 7 October 2020, as well as for the calculation of appropriate compensation for the territory of the Federal Republic of Germany from 15 June 2016 to 6 October 2020, specifying (a) the names and addresses of the manufacturers, suppliers and other previous owners; (b) the names and addresses of the commercial customers and the points of sale for which the products were intended; (c) the quantities of products manufactured, delivered, received or ordered, as well as the prices paid for the products; in support of this information, copies of the relevant purchase documents (namely invoices, or alternatively delivery notes) must be submitted, whereby details requiring confidentiality may be redacted from the data subject to the obligation to provide information and disclosure;
- to provide the Claimant with a structured statement in a machine-readable format detailing the extent to which it has carried out the acts referred to in II above since 15 June 2016, specifying […];
- to identify every product that is, directly or indirectly, in its

possession or ownership and to which reference is made in II.1, including those products recalled and removed from the distribution channels in accordance with III.4 and III.5, to a bailiff to be appointed by the Claimant for the purpose of destruction at the defendant's expense;

- to notify the commercial customers of the products placed on the market as referred to in II.1, stating that this Court has found that the product infringes the patent at issue, and with a binding undertaking to reimburse the costs incurred, to bear the packaging and transport costs incurred, to reimburse the customs and storage costs associated with the return of the products, and to take the products back;
- to permanently remove the products referred to in II.1 from the distribution channels by the defendant taking these items back into its possession, if necessary enforcing their surrender by means of its claims for restitution, or, at the Claimant's discretion, arranging for the destruction of these items at the respective owner's premises at the defendant's expense.

IV. It is hereby declared that the defendant is obliged, in respect of points 1) to 3),

1. shall compensate the Claimant for any further loss arising from all past and future acts as set out in II., which has been incurred or will be incurred in the future by robart GmbH and RoTrade Asset Management GmbH up to 19 December 2024 and by the Claimant from 20 December 2024 onwards,
2. shall pay the Claimant reasonable compensation in the Federal Republic of Germany for all acts referred to in II.1 for which compensation is not already payable under IV.1.

V. The costs of the proceedings.

8. Defendants 1) to 3) raised a preliminary objection regarding the jurisdiction of the UPC pursuant to Rule 19 of the RoP and requested that the Munich local division declare itself without jurisdiction and dismiss the claim as inadmissible; in the alternative, that the proceedings be stayed until a decision had been handed down in the proceedings before the Munich I Regional Court (Case No. 21 O 5958/25).

   With regard to the action for infringement, they essentially requested that it be dismissed as unfounded.

Counterclaim for nullity

9. Defendants 1) to 3) requested that the counterclaim for nullity be dealt with together with the infringement claim and that the patent at issue EP 3 030 943 B1 be declared null and void with effect for the UPC Agreement contracting states in which it is or has been validated, in particular in Germany and France, and that the costs of the proceedings be ordered against the Claimant.

10. The claimant requested that the counterclaim for invalidity be dismissed or, in the alternative, that the patent at issue be upheld on the basis of the amended claims set out in auxiliary claims 1 to 12.

11. Defendants 1) to 3) requested that the alternative claims be dismissed; in the alternative, also with regard to

an infringement of the version of the patent at issue as amended by the alternative claims.

12. In a submission dated 7 July 2026, Defendants 1) to 3) informed the panel that they were, in principle, prepared to reach an out-of-court settlement with the Claimant. They had accordingly agreed to mediation at the WIPO Arbitration Centre in Shanghai; however, given the current state of the discussions, they saw no reason to adjourn the delivery of the decision in these proceedings.

ARGUMENTS OF THE PARTIES:

Interpretation

13. The claimant takes the view that the technical essence of the patent at issue lies in the fact that, whilst carrying out a cleaning plan, the robot checks whether it is actually located in the room to which the respective cleaning task is assigned. This is intended to enable the cleaning plan to be carried out more efficiently. It is essential, first of all, that the device contains a memory unit in which at least one map of a room to be cleaned and a cleaning plan—which can be specified by the user and comprises one or more cleaning tasks—are stored. The cleaning task is allocated to a specific room that can be identified on the basis of the map. The key step, as described in the patent, lies in the fact that, whilst executing the cleaning plan, the device evaluates at least one sensor signal. This sensor signal is then analysed to determine whether it contains features that characterise the room in which the robot is located. Such features may, for example, be room boundaries, floor surfaces, objects or other information typical of the room. The device then checks whether these recognised features are present in the stored map. This determines whether the currently recognised room corresponds to the room to which the cleaning task has been assigned. According to the patent, this determination may be made before the start of, or whilst carrying out, the cleaning task. If the device determines that it is not in the correct room, the cleaning task according to claim 1 is either not carried out, interrupted or terminated. The purpose of the patent is to avoid wasting time and energy on an incorrect cleaning task. Claim 10 protects the device configured to carry out the method according to claim 1. According to this, the device comprises a chassis, a cleaning unit, a control unit, a sensor unit and a storage unit. As the interpretation of the content is largely identical to that of claim 1, reference is made to that claim.

14. Defendants 1) to 3) countered that the patent claims should be interpreted functionally. Claim 1 presupposes that a cleaning plan containing at least one cleaning task is stored in the storage unit. This cleaning task is allocated to a specific room, which is identified on the basis of the

. The cleaning task therefore essentially means:
'Clean this specific room.' The map is to be understood as an electronic representation of a mapping or as a body of structural information. It is not merely a list of existing rooms, nor is it merely a single coordinate point. With regard to feature 1.4, it is not necessary for every feature in the storage unit to be explicitly linked to a specific room. Nor is a mandatory connection between the app display and the robot's internal functioning required. The patent claims do not protect a specific internal 'thinking in terms of rooms', but rather a functional technical teaching: A robot vacuum cleaner has a stored map, a room-specific cleaning task and a sensor system with which it can determine whether it is located in the room assigned to the task. If this is not the case, the task is either not carried out, interrupted or terminated. A purely coordinate-based internal implementation does not preclude the realisation of this teaching, but differs from it functionally.

Infringement

15. In the Claimant's view, all the relevant features of the patent at issue are embodied in the Roborock robot vacuum cleaners at issue, in particular the Roborock S8 and Roborock Saros 10. The infringing products are self-propelled and self-steering floor cleaning appliances. They feature maps, cleaning schedules and the ability to perform allocation of cleaning tasks to specific rooms. The storage is said to take place directly on the robot; this is evidenced by the fact that the robot continues to navigate using the stored map even after being disconnected from the Wi-Fi. With regard to features 1.4 to 1.6, it should be noted that the devices of Defendants 1) to 3) first determine their position after the allocation of a cleaning task has been completed. During this process, the status message 'Positioning' is displayed in the app; once positioning is complete, the device displays *'Position* established'. Consequently, the devices orient themselves in particular using walls, corners and floor surfaces, and compare the information gathered with the stored maps. A negative determination under feature 1.7 and the reaction to it (feature 1.7.1) should also be regarded as having been fulfilled in this context. The Roborock devices would refrain from carrying out a cleaning task if they locate themselves in a room for which no corresponding task has been allocated. Furthermore, the task is terminated if the target room is inaccessible. Claim 1 is therefore infringed directly, or at least indirectly. The Roborock devices also feature components as set out in claim 10: a chassis, a cleaning unit, a control unit, a sensor unit and a memory unit. Furthermore, they are configured in such a way that, whilst executing a cleaning plan, the control unit compares sensor information with stored maps and determines whether the robot is in the correct room.

Consequently, the Roborock devices would use stored maps and sensor information to recognise which room they are in, compare this with a room-specific cleaning task, and either refrain from carrying out the task or terminate it if the target room does not match or is inaccessible. This constitutes the realisation of the protected technical concept of the patent at issue. The contested devices are capable of cleaning specific rooms because they can determine which rooms on the map correspond to those specific rooms — even if this is done internally, not via an app interface visible to humans, but by reference to a coordinate system.

16. Defendants 1) to 3) countered that their floor-cleaning devices operated on the basis of coordinates rather than rooms. The robot vacuum did not 'think' in terms of rooms, but determined its current position using coordinates and then calculated a target point or target area. Whether it was already in the room to be cleaned when it received the cleaning task was irrelevant to its mode of operation. As the Roborock devices only navigated within a map and processed coordinates, the comparison with a specific room required by the patent was lacking. Feature 1.6 requires a comparison between two rooms — the room in which the robot is located and the room that is to be cleaned. It is not sufficient for the robot merely to determine its current position on a map and then calculate a path to that target area. A negative determination within the meaning of the patent at issue only exists if the robot actually determines: '*I am not in the specific room*.' It is not sufficient for the robot merely to recognise that a target area is inaccessible or that a route is not viable. With regard to feature 1.7.1, the decisive factor is whether the execution of the cleaning task assigned to the specific room is omitted, interrupted or terminated as a result of the negative determination. The causality and the link to the specific cleaning task would not be present in the contested embodiments. Since claim 1 is not fulfilled, this also applies to claim 10. With regard to an indirect infringement, the app of the infringing products is not an essential element.

Counterclaim for nullity

17. Defendants 1) to 3) contend that the patent at issue is not novel over D1 because it discloses all the features of claims 1 and 10. D1 also relates to a self-propelled robotic vacuum cleaner with a camera, sensors, a control unit, a storage unit, map information and cleaning commands for specific rooms. The robot can determine its current position or the room on the basis of markings, navigate to a specific room to be cleaned and clean only when it is in the correct room. Furthermore, the 'omission' of cleaning is, according to

the (broad) interpretation of claim 1 if the robot is unable to reach a specific room – for example, due to a locked door or an obstacle – and is therefore unable to clean it. The same applies to claim 10. Even if individual features (in particular 1.7 and 1.7.1, and 10.5 and 10.5.1) were not directly disclosed in D1, they would in any event be obvious on the basis of D1 in the light of D2 or D3. The technical problem is seen as saving working time and energy when a room is physically inaccessible. Furthermore, the features
1.4 to 1.6 and 10.4.1 to 10.4.3 go beyond the content of the original application. The granted claims cannot be derived directly and unambiguously from the original disclosure.

18. In the claimant's view, the counterclaim for nullity was unfounded; it sought its dismissal and, in the alternative, the maintenance of the patent at issue in the form of the amendment set out in one of the 12 different alternative claims. D1 differs significantly from the patent at issue, in particular because D1 does not disclose the case of a locked door relied upon by Defendants 1) to 3); nor do D2 and D3 fill this gap, and there is no reason for the combination. D1 lacks a map of at least one room to be cleaned within the meaning of features 1.2.1 or
10.2.1. The obstacle map in D1 does not, in fact, enable the identification of rooms as claimed and does not form the basis for the allocation of a cleaning task to a room. D1 merely describes a comparison of captured images with stored markers, but does not describe an electronic room map by means of which a room can be identified as such. Furthermore, D1 fails to disclose features 1.7 and 1.7.1 or 10.7 and 10.7.1, namely the omission, interruption or termination of a cleaning task assigned to the specific room in the event of a negative determination. The combination of D1 with D2 is not obvious. For a person skilled in the art, D2 would therefore not be considered in solving the problem in D1, because D2 provides no guidance on how to proceed with a specific task to clean a particular room if that room is not reached. Nor is the combination of D1 and D3 obvious. D3 specifically teaches away from a method in which the robot receives a task to clean a specific room in which it may not be located. Defendants 1) to
3) also left open in their submissions why a person skilled in the art would combine D1 with D2 or with D3. They merely pick out features from them in isolation. Nor is there any impermissible extension beyond the original disclosure.

19. At the oral hearing, the defendant made the decision on its counterclaim for nullity subject to the (procedural) condition that a ruling on it should only be made if the panel finds that there has been a patent infringement.

20. The claimant did not object to the condition stated by the defendant during the oral hearing.

GROUNDS FOR THE DECISION

21. The preliminary objection concerning the UPC's jurisdiction pursuant to Rule 19 of the RoP is unfounded; the Munich local division has jurisdiction over these proceedings. Nor is there any need to stay the proceedings until a decision has been handed down in the proceedings before the Munich I Regional Court (Case No. 21 O 5958/25).

22. The admissible claim for patent infringement is unfounded. For this reason, no decision needs to be made on the admissible counterclaim for revocation. It is therefore also not necessary to examine the submitted alternative claims 1 to 12 for amendment of the patent in order to uphold the patent at issue.

preliminary objection

23. The Munich local division of the UPC has exclusive jurisdiction over the present proceedings pursuant to Article 32 of the UPC Agreement. A declaration of lack of jurisdiction under Article 30(2) of the Brussels I Regulation or a stay of proceedings pending the decision of the Munich I Regional Court, which was first seised in Case No. 21 O 5958/25 under Article 30(1) of the Brussels I Regulation, does not appear appropriate or expedient, if only because of the lack of the necessary connection. EP 3 822 730 B1, which is the subject of the proceedings before the Munich I Regional Court, is based on a divisional application relating to the patent at issue. Claim 1 thereof relates, amongst other things, to checking whether the device is located in the appropriate (specified) room; in the event of a mismatch (negative determination), the cleaning schedule is amended or the cleaning task is omitted, interrupted or terminated. The wording corresponds only in part to that of the patent at issue; however, the device is not expressly *'placed'* in a room by the user. In the event of a negative determination, the accessibility of the specific target room may also be checked. The subject-matter of the patent is therefore different, a point which the Claimant does not dispute in any event.

24. Furthermore, given the alleged territorially distinct acts of infringement in the present proceedings (Germany and France), the factual and legal circumstances are not the same, meaning that there is no risk of irreconcilable decisions (see ECJ C-539/03, *Roche Nederlands v Primus*; C-3616/10, *Solvay v Honeywell*).

25. In these circumstances, the requested declaration of lack of jurisdiction under Article 30(2) of the Brussels I Regulation or a stay of proceedings under Article 30(1) of the Brussels I Regulation would unduly restrict the Claimant's access to the UPC and thus her right to effective legal protection. By contrast, Defendants 1) to 3) are unable to put forward any convincing arguments that could outweigh the Claimant's interest.

Subject-matter of the patent at issue

26. The patent at issue relates to a method for operating a self-propelled and self-steering floor cleaning machine when it deviates from the normal cleaning schedule ([0068] to [0073]), and to the self-propelled and self-steering floor cleaning machine for carrying out cleaning in such a case. According to US 6,667,592 B2, the prior art discloses a floor cleaning appliance for the autonomous cleaning of rooms, which is capable of automatically generating maps of the rooms in which it is located and storing them accordingly. WO 2009/132317 A1 also describes a floor cleaning device capable of carrying out a predetermined cleaning task in the room in which it is placed. KR 10-0730311 B1 describes a cleaning robot which performs an orientation run prior to cleaning in order to map its surroundings. KR 10-2004-0003089 A describes a method for identifying a working area of a cleaning robot using photographic methods. US 2012/0109376 A1 describes a self-propelled and self-steering floor cleaning appliance in which a map is stored, the appliance using an optical sensor to detect features that aid in navigation within the map. A further embodiment is described in US 2005/017 1636 A1.

27. The objective of the patent at issue is to enable the cleaning plan to be carried out efficiently when it is necessary to deviate from the normal cleaning plan, thereby saving energy and time. The floor cleaning appliance comprises a control unit ([0051], Figure 2) which executes a cleaning schedule in one or more rooms, whereby, in particular, at least one cleaning task is allocated to a specific room. During the normal execution of a cleaning schedule, tasks are carried out sequentially. In this case, the specific room and the allocated task always correspond. The device automatically checks, on the basis of (at least) one sensor signal, whether the cleaning task corresponds to the room in which the device is currently located. To determine in which room the floor cleaning appliance is located, the floor cleaning appliance uses a variety of sensors (altitude, position, compass and optical sensors, etc.). A sensor signal from the at least one sensor can be analysed by the floor cleaning appliance. Information contained in the sensor signal can be used, preferably, to identify characteristics of the room and the objects contained therein

[0023]. If the device is positioned in a room by the user (i.e. it does not move there autonomously and according to a plan), the claimed case applies (see [0069], [0072]). In the event of a mismatch (negative determination), the task is not carried out, i.e. it is omitted (but also interrupted or terminated). The procedure is intended to ensure that the floor cleaning device checks, before (or whilst) carrying out a cleaning task, whether it is (still) located in the room intended for that task ([0012], [0072]). In the event of discrepancies between the location and the cleaning task, the task is not carried out in order to save time and energy and to prevent potential damage caused by incorrect cleaning programmes ([0012], [0014], [0031]). In this case, a notification should (preferably) be sent, whereupon the user can take the appliance out of service, move it, or issue a new cleaning task or
-schedule [0015]. The device can also adjust the cleaning schedule autonomously by postponing the task or, upon detecting the location, executing alternative cleaning tasks [0016] – [0018].

28. Claims 1 and 10 of the patent at issue, which (according to the Claimant's submission) are subdivided into the following features, read as follows:

Claim 1:

Feature	
1.1	A method for operating a self-propelled and self-steering floor cleaning machine,
1.2	wherein, in a memory unit (32) of the floor cleaning machine (10),
1.2.1	at least one map of at least one room (52, 54, 56) to be cleaned is stored, and
1.2.2	a cleaning schedule, which can be specified by a user, comprising one or more cleaning tasks,
1.3	wherein at least one cleaning task is allocated to a specific room (52, 54, 56) identifiable on the basis of the at least one map, and the floor cleaning appliance (10) is placed in a room (52, 54, 56), **characterised in that** the method comprises:
1.4	- whilst executing the cleaning schedule, a control unit (20) of the floor cleaning appliance (10) examining at least one sensor signal from a sensor unit (42) of the floor cleaning appliance (10) for characteristics indicative of the room (52, 54, 56) in which the floor cleaning appliance (10) is located;
1.5	- checking whether the characteristics are present in the at least one map stored in the memory unit (32);
1.6	- Determining, before the start of or during the execution of the cleaning task, whether the room (52, 54, 56) in which the floor cleaning appliance (10) is located is the specified room (52, 54, 56);
1.7	and, if the determination is negative:

1.7.1	- Refrain from, suspend or terminate the execution of the cleaning task assigned to the specified room (52, 54, 56).

Claim 10

Feature	
10.1	A self-propelled and self-steering floor cleaning machine for carrying out the method according to any one of the preceding claims, comprising:
10.1.1	- a chassis (12) for moving the floor cleaning apparatus (10) across a floor surface;
10.1.2	- a cleaning unit (22) for cleaning the floor surface;
10.1.3	- a control unit (20) coupled to the chassis (12) and the cleaning unit (22);
10.1.4	- a sensor unit (42) coupled to the control unit (20); and
10.2	a memory unit (32) coupled to the control unit (20),
10.2.1	- in which at least one map of at least one room (52, 54, 56) to be cleaned is stored, and
10.2.2	- a cleaning schedule, which can be specified by a user, comprising one or more cleaning tasks,
10.3	wherein at least one cleaning task is allocated to a specific room (52, 54, 56) identifiable on the basis of the at least one map,
10.4	**characterised in that** the control unit (20):
10.4.1	- whilst executing the cleaning plan, analyses at least one sensor signal from the sensor unit (24) for characteristics indicative of the room (52, 54, 56) in which the floor cleaning appliance (10) is located;
10.4.2	- checks for the presence of the characteristics in the at least one map stored in the memory unit (32);
10.4.3	- before the start of, or whilst carrying out, the cleaning task, determines whether the room (52, 54, 56) in which the floor cleaning appliance (10) is located is the specified room (52, 54, 56);
10.5	and that, if the determination is negative,
10.5.1	the execution of the cleaning task assigned to the specified room (52, 54, 56) is omitted, interrupted or terminated.

Interpretation of the features

29. The scope of protection of the patent at issue has already been outlined in broad terms. To avoid repetition, reference is made to that outline.

30. The interpretation of features 1.7 and 1.7.1 of claim 1 and of features 10.5 and 10.5.1 of claim 10 of the patent at issue is relevant to the decision; they therefore require further explanation.

31. Pursuant to Article 69 EPC, read in conjunction with the Protocol on its interpretation, the patent claim is not merely the starting point but the decisive basis for determining the scope of protection of a European patent. The interpretation of a patent claim does not depend solely on its exact wording in the linguistic sense. Rather, the description and the drawings must always be taken into account as aids to the interpretation of the patent claim and should not be used merely to resolve any ambiguities in the patent claim. However, this does not mean that the patent claim serves merely as a guideline and that its subject-matter also extends to what, following an examination of the description and the drawings, appears to be the patent proprietor's claim for protection. The patent claim must be interpreted from the perspective of the person skilled in the art. In applying these principles, appropriate protection for the patent proprietor should be combined with sufficient legal certainty for third parties. These principles for the interpretation of a patent claim apply equally to the assessment of infringement and the validity of a European patent. This follows from the function of the patent claims, which, under the European Patent Convention, serve to define the scope of protection of the patent pursuant to Article 69 EPC and thus the rights of the patent proprietor in the designated Contracting States pursuant to Article 64 EPC, taking into account the conditions for patentability set out in Articles 52 to 57 EPC (Court of Appeal, Order of 26 February 2024 – UPC_CoA_335/2023).

Person skilled in the art

32. The relevant person skilled in the art is an engineer with several years' professional experience in the field of the development and design of autonomous mobile cleaning devices (in particular cleaning robots), who possesses practical knowledge of autonomous robotic systems, sensor technology, and control and regulation technology for mobile devices, including a basic understanding of software development for maps and cleaning plans, as well as spatial structuring.

Space/Map

33. The term 'room' is to be interpreted in the usual sense, i.e. an area characterised by features such as dimensions (e.g. length and/or width, and also height), walls or other boundaries ([0021]).

    At least one map may be associated with at least one room; this map contains characteristics of the room or objects contained therein, is stored in the device's memory unit and can be processed by the control unit ([0027], [0068], [0079]). A map may also be generated dynamically whilst a plan or a task is being executed.

Cleaning plan and cleaning tasks

34. A cleaning plan comprises one or more cleaning tasks. A cleaning task is associated with a room (and its map). A room can be cleaned randomly, partially according to a plan, or fully according to a plan. Depending on the cleaning task, the room or areas within it may be cleaned in different ways. For example, certain parts of a room are only swept, only vacuumed, or both vacuumed and swept ([0055]). A cleaning task is specified ('allocated') and the device is placed in a room by the user. It then checks whether the task and the room match. If the check yields a negative result (feature 1.7), the execution of the cleaning task is omitted, interrupted or terminated (feature 1.7.1). Tasks can be distinguished individually and executed accordingly.

Features 1.7 and 1.7.1

35. The Claimant refers to the case of a negative determination as feature 1.7 ('and, in the event of a negative determination') and the reaction to it as feature 1.7.1. Although the patent specification does not contain such a subdivision, a specific, immediate reaction in relation to the assigned cleaning task can be inferred from the wording and grammar. A direct link is established between the negative determination and the consequences of carrying out the cleaning task assigned to the specific room (52, 54, 56), namely refraining from, interrupting or terminating the task.

36. The Claimant's arguments that preferred embodiments are not suitable for limiting the scope of protection of the patent in suit, and that the advantages of the invention described in the specification – in this case, the avoidance of unnecessary work – are likewise unsuitable for this purpose, are correct in principle; however, the person skilled in the art recognises that, according to the description, the claimed method steps according to features 1.4 to 1.7.1 are programmed into the device and executed by the control unit as shown in Figure 2 ([0051] – [0052]). The wording of the claims must therefore be interpreted in the language of programming logic, following the pattern of an 'IF…THEN… (ELSE...)' structure. This creates, for the person skilled in the art, a direct and causal link between the fulfilment of a condition ('IF…') and the subsequent instruction(s) ('THEN…' ('ELSE...')), which confirms the literal interpretation.

37. The description supports this interpretation because, in all the embodiments mentioned, a negative determination directly and immediately causes the task to be omitted, interrupted or terminated. Nor is there any indication that other conditions (such as the inaccessibility of a room) are responsible for the omission, interruption or termination of a task as claimed

, or that, in the advantageous embodiment mentioned in [0068], in which the device was placed in room 52, the device attempted to move directly to room 54 but would then omit the cleaning task for room 54 due to an obstacle.

38. [0072] describes the case where the cleaning task is omitted due to the negative determination regarding the room 54 to be cleaned ("*The negative determination in the present case causes the floor cleaning device 10 not to carry out the cleaning task assigned to this room 54, i.e. to omit it*."), but it is clear that the machine has the option of considering moving to room 54, yet rules this out due to an obstacle (*"As rooms 52 and 54 are located on different floors in building 58, the floor cleaning machine 10 cannot move to room 54 to carry out the cleaning task"*).

39. It is further described that the cleaning device can automatically make a change to the specified cleaning schedule. It is particularly preferred that, in place of the omitted, interrupted or terminated cleaning task, another cleaning task—in particular, the task for room 52—is carried out and the execution of the cleaning schedule is continued ([0018], [0020], [0073]: *'... first execute the cleaning task assigned to room 52. This makes it possible to carry out the cleaning schedule particularly* efficiently', [0076]). These and other possibilities (see [0074] – [0077]) all exist once features 1.7 and 1.7.1 have been fulfilled and are also covered by the further patent claims 4 and 5. Nor do they contradict the direct link between the negative determination and the immediate consequence for execution.

40. Nor does the fact that certain aspects of the invention are described as 'preferred' justify an interpretation in which the omission, interruption or termination of the task would be triggered by a hypothetical condition other than the claimed negative determination. Such an interpretation would render the claimed condition ('upon a negative determination') obsolete and would also contradict the wording.

41. Consequently, features 1.7 and 1.7.1 in claim 1 must be interpreted (functionally) such that the negative determination (by the cleaning device regarding the correct location during the execution of the cleaning task) is the direct and immediate cause of the task being omitted, interrupted or terminated, and triggers only these reactions. It must therefore be agreed with Defendants 1) to 3) that the subject-matter of claim 1 encompasses only the described possible reactions in the event of a negative determination and not the non-execution for other reasons. According to the patent,

energy and working time are to be saved or faulty cleaning avoided ([0012] and [0014]), which is also functionally ensured by an immediate reaction to the negative determination. The same applies to patent claim 10 and features 10.5 and 10.5.1.

42. Nor is this contradicted by the Claimant's view: even though [0012] and [0013] distinguish between a cleaning schedule and a cleaning task, [0026] contains, for example, height information (e.g. 'I am on the wrong floor') and [0070]–[0072] describe an embodiment, the claims and the description do not encompass a comparison of how the cleaning device enters the room. The advantageous embodiments, in which the specific room and the cleaning task do not match, merely describe the case where the cleaning device is placed in a room (i.e. it does not travel there autonomously and according to a schedule).

43. It is also irrelevant whether the 'omission' in feature 1.7.1 (or in feature 10.5.1) could be regarded not only as a definitive omission but also as a provisional one, which does not preclude subsequent execution. Semantically, the provisional omission could be equated with an interruption. [0073] and/or Claim 3 describe a change to the cleaning schedule in the event of a negative finding; however, such a change also requires a (different) assigned cleaning task.

Regarding the action for infringement

44. Based on the understanding set out above of features 1.7 and 1.7.1 of claim 1 (and 10.5 and 10.5.1 of claim 10) of the patent at issue, there is no patent infringement by the challenged Roborock robot vacuum cleaners, in particular the Roborock S8 and Roborock Saros 10 models.

45. The mode of operation of the Roborock S8 (pages 50–59 of the infringement claim) and the Roborock Saros 10 (pages 80–99) as described by the Claimant—namely that the robot first determines its location; if the room it has detected matches the designated room, it immediately begins cleaning; if it is not in the designated room, it first navigates to that room and only begins cleaning once it has reached it; if the target room is inaccessible, it refrains from cleaning and issues a corresponding message; nor do the videos submitted demonstrate with the requisite certainty that all the features, in particular features 1.5, 1.7 and 1.7.1 of claim 1 and features 10.4.2, 10.5 and 10.5.1 of claim 10, are realised.

46. In Video 1, the robot carries out a reconnaissance run. It moves through the test environment, scans the rooms and creates a map from this data. The Saros 10 specification additionally describes that the robot concludes the reconnaissance with *the message 'Mapping* complete', returns to the base station and the map is subsequently saved. In Video 2, the rooms are named in the app as 'Room I', 'Room II', 'Room III' and 'Room IV'. This is intended to allow the user to perform the allocation of a cleaning task to a specific room on the saved map. In Video 3, the robot is placed in Room II and receives the instruction via the app to clean Room II. The robot locates itself; 'Positioning…' appears in the app. According to the Claimant's account, once it has located itself, it begins cleaning immediately. In Video 4, the robot is again instructed to clean Room II, but is started in Room III. According to the Claimant's account, it first correctly locates itself in Room III, then moves to Room II and begins cleaning there. From this, the Claimant concludes that the robot does not simply clean independently of its starting point, but takes into account both the starting location and the target room. In Video 5, the target room is inaccessible. In the case of Saros 10, the Claimant describes how the passage between the rooms is blocked by the robot vacuum's cardboard box. It can be seen that the robot attempts several times to pass on either side of the obstacle, but fails to do so and reports *'Unable to reach the target. Returning to the dock*'. It then returns to the base station. A notification also appears in the app. In Video 6, the situation of the unreachable target room is repeated, but after the task is issued, the Wi-Fi connection is lost. The Claimant wishes to demonstrate that the robot continues to navigate using the stored map and that the cleaning task and the map are stored on the device itself.

47. The Chamber can see from the videos that the robot vacuum starts in the room designated by the user for cleaning and carries out a reconnaissance run. It also creates a map, which it divides up whilst localising its position autonomously. As the robot can operate without Wi-Fi, the data is clearly stored within the robot itself. However, the videos only clearly show localisation within a map and navigation to a target area. This behaviour can, however, be explained just as well by a purely coordinate-based SLAM (Simultaneous Localisation and Mapping)/navigation logic as by a space-specific and feature-based map in accordance with the patent at issue. It is therefore not proven beyond doubt that the Roborock robots fulfil feature 1.5 as set out in claim 1 or feature 10.4.2 as set out in claim 10.

48. Nor do the videos demonstrate that the robots carry out the spatially-based check as defined in the patent and, in the event of a negative finding, refrain from, interrupt or terminate the operation as required by claim 1 and claim 10.

Consequently, the defendant's position on points 1) to 3) cannot be refuted, namely that the contested Roborock robots do not 'think' in terms of rooms and that the division of the map into different rooms is merely a graphical representation, a visual aid for the user (accordingly, the naming of the rooms [e.g. Room I, II, III, IV]) is to be carried out by the operator themselves. However, this room designation is irrelevant to the robot's technical operations. Furthermore, the defendants' assertion that the robots do not determine in which room specific coordinates are located cannot be refuted. In any case, during the reconnaissance run, the robot determines the coordinates of its current position (= localisation) and subsequently determines the coordinates (pure coordinate system) of its destination point at the edge of the room to be cleaned (= navigation).

49. Of particular significance is the behaviour demonstrated when the robot is not in the room it is intended to clean (see Video 4): before commencing the cleaning task, it is determined whether the room (III) in which the floor-cleaning device is located is the specified room (II). If the determination is negative, however, the device calculates a navigation path and attempts to navigate to the specified room. If the room is accessible, the task is carried out as normal; however, this should not occur in accordance with the claims 1.7 and
1.7.1, as in the event of a negative determination (*'I am not in the specified* room'), the cleaning task assigned to that room would have to be omitted, interrupted or terminated. However, if the device determines that the room is inaccessible, it notifies the user of this (*'Could not reach target' / 'Target area not reached'*) and returns to the base station. However, the return to the base station and the failure to carry out a task are not caused by the negative determination *'I am in the wrong* room', but primarily by the target room being inaccessible. Consequently, there is no reaction in accordance with the patent to the negative determination which is the causal factor leading to the task being omitted, interrupted or terminated.

50. In Video 5, too, the task is not aborted because the robot has determined that its starting room is not the specified room. The task is aborted because the target is unreachable (*'closed* door'). This is a path-planning or reachability decision, not a negative determination as defined by the patent.

51. The situation is similar in the Claimant's other example cases (see the Reply, page 40 in each instance): 'different floor' or 'invisible wall' (*'Cannot reach target.').* Here, too, there is no direct causal reaction to the negative determination, notwithstanding the fact that the robot was not positioned in the room to be cleaned as claimed. The omission, interruption or termination results from the occurrence of an obstacle

or the inability to reach a destination area on another map, or faulty or failed navigation.

52. It can be seen from the videos that a *'negative determination'* does not necessarily cause a direct or immediate change to the execution of the task. Only a subsequent failure to reach a room prevents execution.

53. The fact that the entire plan or task can be carried out again at a later stage also applies to the device according to the invention. Where the Claimant argues that the robot vacuum cleaner determines whether or not it is positioned in the room to be cleaned and plans its subsequent operation based on the result of this determination, this is, in essence, correct. However, the fact that, following this determination, the robot first checks whether the room to be cleaned is accessible, and only cancels the cleaning task if this is not the case, is not covered by features 1.7 and 1.7.1. In accordance with the interpretation of the features set out above, the defendant's view must be upheld that the negative determination must be the causal trigger for the execution of the subsequent procedural step, namely for the omission, interruption or termination. Other triggers, such as the impossibility of calculating a navigation path or an insurmountable obstacle (e.g. a closed door or a flight of stairs), are excluded and are not covered.

54. The Roborock Saros 10 robot vacuum behaves in the same way as the Roborock S8 in all circumstances relevant to the patent at issue. It therefore does not infringe the patent at issue either: it starts from its base station and carries out a reconnaissance run. It creates a map (*'Mapping complete'*), which can be divided into different rooms either manually or automatically. Before the cleaning task begins, the system determines whether the room (blue) in which the floor-cleaning device is located is the specified room (orange). If this is not the case, the device attempts to navigate to the specified room. If the device then determines that the room cannot be reached (*'Destination unreachable'*), the task is terminated or not carried out, and it returns to the base station (*'Return to* station'). Where there are several rooms to be cleaned, once the robot vacuum has located itself, it begins cleaning the room in which it is positioned. The robot vacuum then cleans the other room and returns to the base station once cleaning is complete. The order is not specified by the user.

    The claimant has set out in detail what, in her view, the patent claim requires in functional terms; she has focused exclusively on the functional control logic and has described the operation of the patent in abstract terms. She has also explained what she intends to infer from the test videos regarding the operation of the Roborock robots; however, this does not establish with the requisite degree of certainty that the

contested embodiments also embody features 1.5, 1.7 and 1.7.1, as well as 10.4.2, 10.5. and 10.5.1.

During the oral hearing, it was discussed in this regard that a person skilled in the art could objectively understand the logic for controlling the robot, for example by disclosing the source code. The Claimant's subsequent application under Rule 190 of the RoP, requesting that Defendants 1) to 3) submit their source code, was not only to be regarded as out of time (see point 7, last sentence of the preamble to the RoP), but also as insufficiently substantiated. This is because there is no corresponding submission as to where exactly her information gap lies, which could be remedied by inspecting the opposing party's source code. In this respect, it would be necessary for the Claimant to set out, on a feature-by-feature basis, which features are already to be regarded as realised and for which features this is not yet the case, although there is a certain probability of realisation. The claimant has not done so, meaning that its applications against Defendants 1) to 3) amount to nothing more than an inadmissible attempt to gather information or probe the facts. The specific connection required by Rule 190 of the RoP between the measures sought and the facts on which the claimant relies is therefore not established.

55. With regard to an indirect infringement, the app is not an essential element. The core of the invention, in particular the data processing and control in the event of a negative finding, takes place autonomously within the robot's control unit. The app merely serves to facilitate the user-friendly input of cleaning schedules and tasks.

On the counterclaim for nullity

56. No decision needs to be made on the counterclaim for nullity.

57. During the oral hearing, Defendants 1) to 3) stated that they would not pursue their counterclaim for nullity in the form originally filed if the panel did not find patent infringement in these proceedings. In doing so, they have made their counterclaim contingent upon the fulfilment of a procedural condition (namely, the panel's finding of patent infringement). Such a procedural approach – namely, an unconditional application to make the counterclaim for invalidity dependent on a finding of infringement – is admissible (see Court of Appeal judgment of 16 July 2026, UPC_CoA_40/2026, Emboline v AorticLab). The transition from an unconditional counterclaim for revocation to one that is conditional upon the fulfilment of a procedural requirement (i.e. a finding of patent infringement by

the Court) means, furthermore, that the counterclaim (remains) unconditionally limited in accordance with Rule 263(3) of the RoP.

58. Nor does such a procedural condition place the claimant at a disadvantage. Nor, in accordance with the principle of fairness, is it apparent what disadvantage it might entail for the claimant if, in the event that no patent infringement is found, no decision is made on the counterclaim. Therefore, the claimant has no legitimate interest in raising objections to the procedural condition. Nor has it raised any objections.

59. Under Article 76(1) of the UPC Agreement, the court must rule in accordance with the applications made by the parties and may not rule beyond the scope of those applications. In the present case, this means that no decision can be made on the counterclaim for invalidity because the panel has not found any patent infringement. The condition under which a decision on the counterclaim for invalidity is to be made has not been met.

Order for costs

60. At the oral hearing, the value in dispute for the infringement claim was ultimately set at EUR 1 million and that for the counterclaim for nullity at EUR 1.5 million, bringing the total value in dispute to EUR 2.5 million. The upper limit for recoverable legal representation costs for the infringement claim and the counterclaim for nullity is therefore EUR 200,000.

61. As the Claimant has (also) incurred costs as a result of the counterclaim for annulment and has not agreed to bear these costs, a decision must be made on this matter, even if no decision is made on the counterclaim for annulment itself. It is true that account must be taken of the fact that, under the Rules of Procedure, Defendants 1) to 3) are in principle obliged to bring a counterclaim for invalidity if they wish to defend themselves against the infringement action by raising arguments of invalidity (UPC_CoA_393/2025, decision of 20 June 2025), it was, however, their decision to make the decision on the counterclaim for invalidity subject to an internal procedural condition.

62. As the procedural condition has been met, it remains unclear how the counterclaim for nullity would have been decided. Since it falls within the sphere of responsibility of the defendants under
1) to 3) that no decision is made on the counterclaim for invalidity, it is also attributable to them that no decision in favour of the Claimant can be made in this regard. Had the counterclaim for invalidity been dismissed, the

Defendants 1) to 3) would have had to reimburse the Claimant for the relevant costs. Consequently, the same must apply if, in accordance with the application by Defendants 1) to 3), no decision is made on the counterclaim for nullity where no patent infringement is found. In this respect, the costs incurred by the Claimant in this regard are to be regarded as unnecessary.

63. Under Article 69(3) of the UPC Agreement, the party that causes unnecessary costs must bear them. For this reason, Defendants 1) to 3) must bear the costs incurred as a result of the counterclaim for nullity.

64. As the unsuccessful party in the proceedings concerning the patent infringement, the claimant must bear the relevant costs of defendants 1) to 3). Due to the weighting of the different amounts in dispute for the infringement claim and the counterclaim for nullity, the total costs are apportioned accordingly between the parties. Consequently, Defendants 1) to 3) are to bear 60% of these costs and the Claimant 40% (Article 69(2) of the UPC Agreement).

DECISION

I. The defendants' preliminary objection is dismissed.

II. The action for infringement is dismissed.

III. All further applications by the claimant are dismissed.

IV. By the total costs of the proceedings (action for infringement and counterclaim for annulment) shall be borne by the Claimant (40 per cent) and the defendants (60 per cent).

INFORMATION ON APPEALS

Any party whose applications have been rejected in whole or in part may lodge an appeal against this decision with the Court of Appeal within two months of the decision being served (Article 73(1) of the UPC Agreement, Rules 220.1(a) and 224.1(a) of the RoP).

INFORMATION ON ENFORCEMENT

(Article 82 UPC Agreement, Article 37(2) UPC, Rules 118.8, 158.2, 354, 355.4 of the RoP)
A certified copy of the enforceable decision or the enforceable order shall be issued by the Deputy-Registrar on application by the enforcing party, Rule 69 of the Rules of Procedure.

Delivered in open court in Munich on 17 August 2026

Presiding Judge Dr Zigann	
Legally qualified judge Pichlmaier	
Legally qualified judge Dr Schober	
Technically qualified judge Dumont	
on behalf of the Deputy-Registrar	