

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MITO RED LIGHT, INC.,
Petitioner

v.

JOOVV, INC.,
Patent Owner.

Inter Partes Review Case No. IPR2024-00621

U.S. Patent No. 11,253,719

***PETITION FOR INTER PARTES REVIEW UNDER 35 U.S.C. §§ 311-319
AND 37 C.F.R. § 42***

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March 5, 2024

LIST OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 11,253,719 (“the ’719 patent”)
1002	Declaration of Eric Bretschneider, Ph.D.
1003	Prosecution History File Wrapper of the ’719 patent
1004	U.S. Patent Publication No. 2019/0030359 A1 (“ <i>Dijkstra</i> ”)
1005	U.S. Patent Publication No. 2006/0237439A1 (“ <i>Norwood</i> ”)
1006	U.S. Patent No. 10,478,635 (Reexamined) (“the ’635 patent”)
1007	Prosecution History File Wrapper of U.S. Patent No. 10,478,635 (excerpts)
1008	<i>Ex Parte</i> Reexamination History of U.S. Patent No. 10,478,635 (excerpts)
1009	U.S. Patent No. 10,639,495 (Reexamined) (“the ’495 patent”)
1010	Prosecution History File Wrapper of U.S. Patent No. 10,639,495 (excerpts)
1011	<i>Ex Parte</i> Reexamination History of U.S. Patent No. 10,639,495 (excerpts)
1012	U.S. Patent No. 11,524,172 (“the ’172 patent”)
1013	Prosecution History File Wrapper of U.S. Patent No. 11,524,172 (excerpts)
1014	Patent Owner’s Preliminary Infringement Contentions, Exhibit 5 (the ’719 patent) in Joovv, Inc. v Mito Red Light, Inc., Civil Action No. Case 2:23-cv-01084-MTL (D. Ariz.) (October 20, 2023).
1015	U.S. Patent No. 6,314,699 B1 (“ <i>Tucker</i> ”)
1016	U.S. Patent Publication No. 2004/0127961 A1 (“ <i>Whitehurst</i> ”)
1017	U.S. Patent Publication No. US 2011/0054573 (“ <i>Mitchell</i> ”)

TABLE OF CONTENTS

I.	INTRODUCTORY STATEMENT.....	1
II.	REQUIREMENTS FOR REVIEW UNDER 37 C.F.R. §42.104.....	1
A.	Standing Under 37 C.F.R. §42.104(a).....	1
B.	Challenged Claims and Statutory Grounds under 37 C.F.R. §42.104(a).....	1
C.	37 C.F.R. §42.104(b)(4): How the Construed Claims are Unpatentable.	2
D.	37 C.F.R. §42.104(b)(5): Supporting Evidence	2
III.	THE '719 PATENT	2
A.	The '719 Patent	2
B.	Prosecution History of Related Patent	3
IV.	THE PRIOR ART.....	4
A.	<i>Dijkstra</i> : U.S. Patent Publication No. 2019/0020259.....	4
B.	<i>Norwood</i> : U.S. Patent Publication No. 2006/0237439.....	4
V.	37 C.F.R. §42.104(B)(3): CLAIM CONSTRUCTION.....	4
VI.	LEVEL OF ORGINARY SKILL	5
VII.	RECITATION OF THE CHALLENGED CLAIMS.....	5
VIII.	GROUND 1: CLAIMS 1, 2, 3, 9, 10, 11, 16, 17, 19 ARE OBVIOUS IN VIEW OF <i>DIJKSTRA</i> AND POSITA'S KNOWLEDGE	5
A.	Overview: <i>Dijkstra</i>	5

B.	Independent Claim 1.....	7
C.	[1Preamble]	7
1.	Limitation [1a]	8
2.	Limitation 1[b]	10
3.	Limitation 1[c]	12
4.	Limitation 1[d]	13
5.	Limitation 1[e]	14
6.	Dependent Claim 2.....	18
D.	Dependent Claim 3	22
E.	Dependent Claim 9	23
F.	Dependent Claim 10	25
G.	Dependent Claim 11	28
H.	Dependent Claim 16	30
I.	Dependent Claim 17	31
J.	Dependent Claim 19	34
IX.	GROUND 2: CLAIMS 1, 2, 3, 9, 10, 11, 16, 17, 19 ARE OBVIOUS IN VIEW OF <i>DIJKSTRA</i> , POSITA’S KNOWLEDGE AND <i>NORWOOD</i>	36
A.	Overview. Of <i>Norwood</i>	36
B.	Independent Claim 1.....	38
1.	[1Preamble].....	38

2.	Limitation [1a]	38
3.	Limitation [1b]	39
4.	Limitation 1[c]	40
5.	Limitation 1[d]	40
6.	Limitation 1[e]	40
C.	Claim 2	45
D.	Claim 3	45
E.	Claim 9	45
F.	Claim 10	45
G.	Claim 11	49
H.	Claim 16	49
I.	Claim 17	50
J.	Claim 19	51
X.	DISCRETIONARY DENIAL IS UNWARRANTED.....	51
XI.	CONCLUSTION	55
XII.	FEES	55
XIII.	MANDATORY NOTICES UNDER 37 C.F.R. §42.8.....	55
A.	Real Parties-in-Interest Under 37 C.F.R. §42.8(b)(1)	55
B.	Related Matters Under 37 C.F.R. §42.8(b)(2).....	55

C.	Lead and Back-up Counsel Under 37 C.F.R. §42.8(b)(3)	56
XIV.	SERVICE INFORMATION UNDER 37 C.F.R. §42.8(B)(4).....	57

I. INTRODUCTORY STATEMENT

Mito Red Light, Inc. (“Petitioner”) petition for *Inter Partes* Review (“IPR”) under 35 U.S.C. §§311-319 and 37 C.F.R. §42.100 *et seq.* of claims 1, 2, 3, 9, 10, 11, 16, 17, 19 of U.S. Patent No. 11,253,719 (“the ’719 patent”) (Ex-1001), assigned to JOOVV, Inc. (“Patent Owner”). Because it is reasonably likely that Petitioner will prevail on at least one challenged claim, the PTAB should institute review. *See* 35 U.S.C. §314(a).

II. REQUIREMENTS FOR REVIEW UNDER 37 C.F.R. §42.104

A. Standing Under 37 C.F.R. §42.104(a)

Petitioner certifies the ’719 patent is eligible for IPR and Petitioner is not barred or estopped from requesting IPR.

B. Challenged Claims and Statutory Grounds Under 37 C.F.R. §42.104(b)(1)-(2)

Petitioner requests IPR and cancellation of claims 1, 2, 3, 9, 10, 11, 16, 17, 19 of the ’719 patent on the following grounds.¹

¹ References to 35 U.S.C. §§ 102 and 103 are to the post-AIA versions.

Ground	Basis	References	Challenged Claims
1	§103	US 2019/0030359 A1 to <i>Dijkstra</i> and POSITA's Knowledge ²	1, 2, 3, 9, 10, 11, 16, 17, 19
2	§103	US 2019/0030359 to <i>Dijkstra</i> , POSITA's Knowledge and 2006/0237439 A1 to <i>Norwood</i>	1, 2, 3, 9, 10, 11, 16, 17, 19

C. 37 C.F.R. §42.104(b)(4): How the Construed Claims are Unpatentable

An explanation of how claims 1, 2, 3, 9, 10, 11, 16, 17, 19 are unpatentable is set forth below.

D. 37 C.F.R. §42.104(b)(5): Supporting Evidence

Petitioner relies upon the evidence in the List of Exhibits, including the Declaration of Eric Bretschneider, Ph.D. (Ex. 1002).³

III. THE '719 PATENT

A. Overview of the '719 Patent

The application for the '719 patent was filed on October 10 2019, and issued on February 22, 2022. Ex. 1001, (22), (45). The '719 patent claims priority to nonprovisional application 16/227,289 filed on December 20, 2018. Ex. 1001, (63). The patent is entitled Photobiomodulation Therapy Systems and Methods.” Ex. 1001, (54). The patent relates to “a therapy technique that uses low-level

² As used herein, “POSITA’s knowledge” refers to a POSITA’s general knowledge.

³ To avoid clutter, citations to the expert declaration are included at the end of paragraphs and are intended to apply to all sentences in the paragraph.

wavelengths of light to improve health and treat a variety of health conditions....

This treatment stimulates the body's natural healing processes.” Ex. 1001, 1:43-50.

The patent discloses that “there is a need for photobiomodulation therapy systems that can treat several areas in fewer treatments” and existing “systems used are not big enough to treat the entire body at once.” Ex 1001, 1:54-55; 5:2-3. The patent presents a solution where two or more light therapy devices [are] communicatively coupled together to form a light therapy system. In so doing, the area of treatment can be expanded to reduce the time and number of treatments to achieve the desired results.” Ex. 1001, 5:4-8; Ex. 1002, ¶¶75.

The prosecution history does not impact the Petition's arguments. Ex-1002, ¶¶76-79.

B. Prosecution History of Related Patents

The '719 patent is related to three patents, U.S. Patent Nos. 10,478,635 (“the '635 patent”), 10,639,495 (“the '495 patent”), and 11,524,172 (“the '495 patent”) and shares the same specification. The prosecution and reexamination histories and of these three patents are highly relevant to Petitioner's arguments. Ex. 1001, (63). In particular, the *Dijkstra* and *Norwood* references, raised in Grounds 1 and 2, were applied in the *ex parte* reexaminations of the '635 and '495 patents and during the original prosecution of the '172 patent. In each instance, as discussed herein, the Patent Owner/applicant made admissions regarding the disclosure and

teachings of *Dijkstra* and *Norwood* references that are highly relevant to the Petitioner’s argument. Ex. 1002, ¶¶80-131.

IV. THE PRIOR ART

A. *Dijkstra*: U.S. Patent Publication No. 2019/0030359 A1

US 2019/0030359 A1 to *Dijsktra* (“*Dijsktra*”) is prior art under 35 U.S.C. §102(a)(2) because it was filed October 2, 2018. Ex. 1004, (22); Ex. 1002, ¶132.

B. *Norwood*: U.S. Patent Publication No. 2006/0237439

US 2006/0237439 A1 to *Norwood* (“*Norwood*”) is prior art under 35 U.S.C. §102(a)(2) because was filed as a PCT application on February 9, 2004 and published on October 26, 2006. Ex. 1005, (22), (65). US 2006/0237439 A1 to *Norwood* (“*Norwood*”) issued as U.S. Patent No. 7,932,482 on April 26, 2011. Citations herein are to the US 2006/0237439 A1. Ex. 1002, ¶133.

V. 37 C.F.R. §42.104(B)(3): CLAIM CONSTRUCTION

Terms should be given their plain meaning. The parties have agreed to the construction of the following terms in Case No. 2:23-cv-01084-MT, ECF #54, currently pending in the District of Arizona:

Claim Term	Agreed Construction
Switch	An interactive interface

Petitioner reserves the opportunity to respond to constructions offered by

Patent Owner or adopted by the Board.

VI. LEVEL OF ORDINARY SKILL

A person of ordinary skill in the art (“POSITA”) at the time of the alleged invention of the ’376 patent would be an individual with a bachelor’s degree in an engineering field (*e.g.*, mechanical, chemical, electrical or materials science) and at least two years of design experience with LED panel lighting or display products. Because the focus of the patent is related to mechanical and electrical product design issues and advanced degree would not reduce the required amount of product design experience. Ex. 1002 ¶¶ 52-70.

VII. RECITATION OF THE CHALLENGED CLAIMS

A recitation of the challenged claims is provided in Appendix A.

VIII. GROUND 1: CLAIMS 1, 2, 3, 9, 10, 11, 16, 17, 19 ARE OBVIOUS IN VIEW OF *DIJKSTRA* AND POSITA’S KNOWLEDGE

A. Overview: *Dijkstra*

Dijkstra discloses “a light therapy system [] having two or more light therapy devices to provide maximum or full body treatment with minimum user intervention and body movement. Ex. 1001, [0017]. *Dijkstra* teaches that the light therapy devices are arranged around the treatment subject for maximum exposure to therapeutic light and are communicatively couple together. Ex. 1001, [0099, 0101]; Ex. 1002, ¶135.

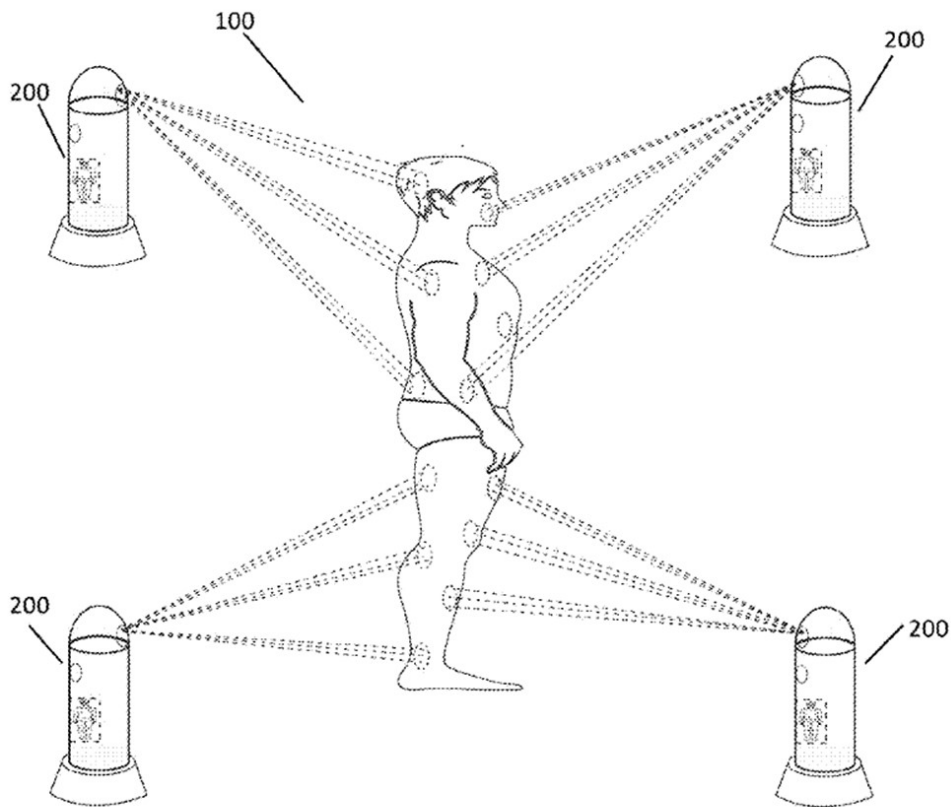


FIG. 9

Dijkstra discloses the use of both red and infrared light therapy wavelengths may be use for treatment. Ex. 1001, [0063, 0067]. *Dijkstra* teaches that the multiple light devices establish wired or wireless connection and synchronize for treatment. To further the goal of providing “full body treatment by using different type of light therapies according to internal and external body conditions or diseases,” *Dijkstra* describes each therapy light device may be configured to operate in either a lead mode and a follow mode “where one device or process has unidirectional control over one or more devices.” Ex. 1004, [0011, 0099, 0101]. In this “master-slave model,” “the master light therapy device has a controlling

unit which is controlling the all-[sic] other slave light therapy devices, each of the slave light therapy devices is having a communication module to communicate with the master light therapy device and a light projection unit works as per the master light therapy device input.” Ex. 1004, [0011]. *Dijkstra* also describes “a touchscreen display mounted on the outer surface of the light therapy device acting as an input unit, in which the user can manually select and prioritize the external body condition and/or the internal body condition based upon his/her own intellect.” Ex. 1004, [0090]. This touchscreen allows “the user can determine the type of treatment required for a particular body condition and can also determine the time and intensity required for the treatment.” Ex. 1004, [0090]; Ex. 1002, ¶136.

B. Independent Claim 1

Claim 1 is rendered obvious by *Dijkstra* and POSITA’s knowledge. Ex. 1002, ¶137.

C. [1Preamble] ⁴

To the extent the preamble is limiting, *Dijkstra* discloses a method for providing a light therapy treatment. Ex. 1004, [0001], [0096]. The ’719 patent teaches that “[p]hotobiomodulation therapy (or light therapy) is a therapeutic

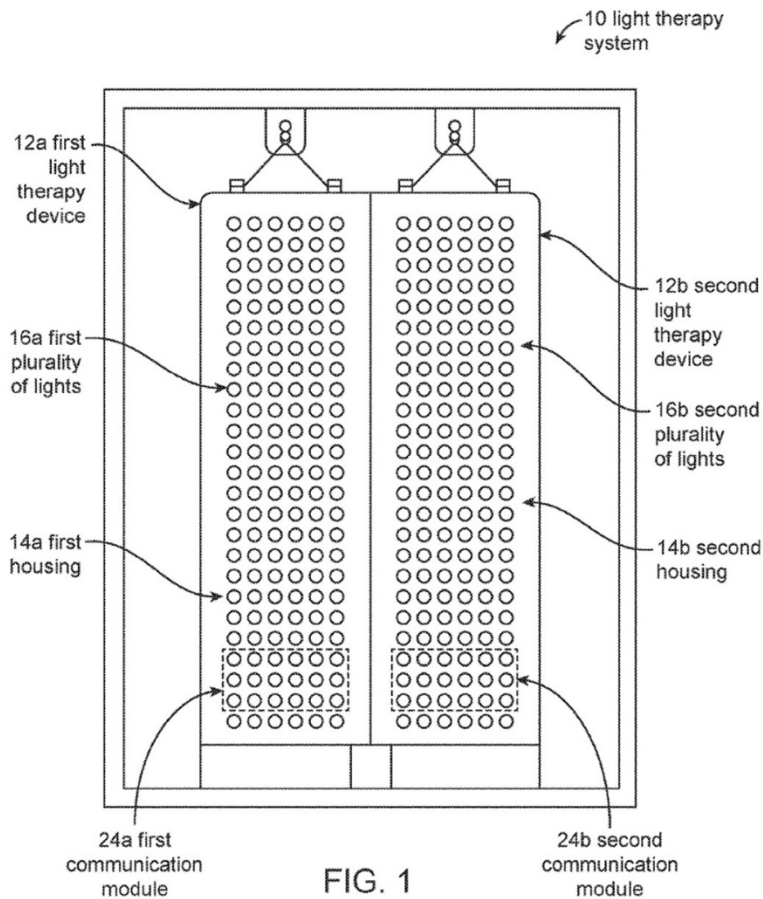
⁴ Petitioner addresses preambles herein to the extent they are limiting.

technique that uses low-level wavelengths of light to improve health and treat a variety of health conditions, including skin issues, such as wrinkles, scars, and persistent wounds, among many other conditions.” Ex. 1001, at 1:42-45. Thus, the ’719 patent is directed therapeutic techniques using light to treat that least skin issues. Ex. 1002, ¶138.

Notably, the Examiners in the reexamination of the ’635 and ’495 patents and the prosecution of the ’172 patent, also found that *Dijkstra* discloses a light therapy treatment device. Ex. 1002, ¶140.

1. Limitation [1a]

Dijkstra discloses providing a first light therapy device comprising a first housing and a first plurality of lights configured to emit at least one of red light and near infrared light. Referring to Figure 1, the ’719 patent describes that “the first light therapy device 12a may have a first housing 14a, a first plurality of lights 16a, and a first communication module 24a” and “[i]n some embodiments, the first plurality of lights 16 a may be red lights, near infrared lights, or some combination of red lights and near infrared lights.” Ex. 1001, 5:16-21; Ex. 1002, ¶142.



Dijkstra shows in Figs, 1, 2, 8 and 9 a light therapy system, comprising a first light therapy device (200) comprising a first housing (210) and a first plurality of lights arranged and configured to emit red light or near-infrared light. Ex. 1004 [0019, 0129, 0133]. *Dijkstra* discloses that the light therapy device can emit light in a range of 100-1600 nm wavelength. Ex. 1004 [0063, 0067]. This wavelength range includes red light and near -infrared light; wavelengths in the range of 800-1072 nm (Ex. 1004, [0037]), which is in the near-infrared range; wavelengths in the range of 632-904 nm and 660-nm - 905 nm (Ex. 1004, [0129]) which includes the red light range and the near-infrared range and wavelength of 1072 nanometers

(Ex. 1004, [0130]) which is in the near-infrared range. Ex. 1002, ¶143.

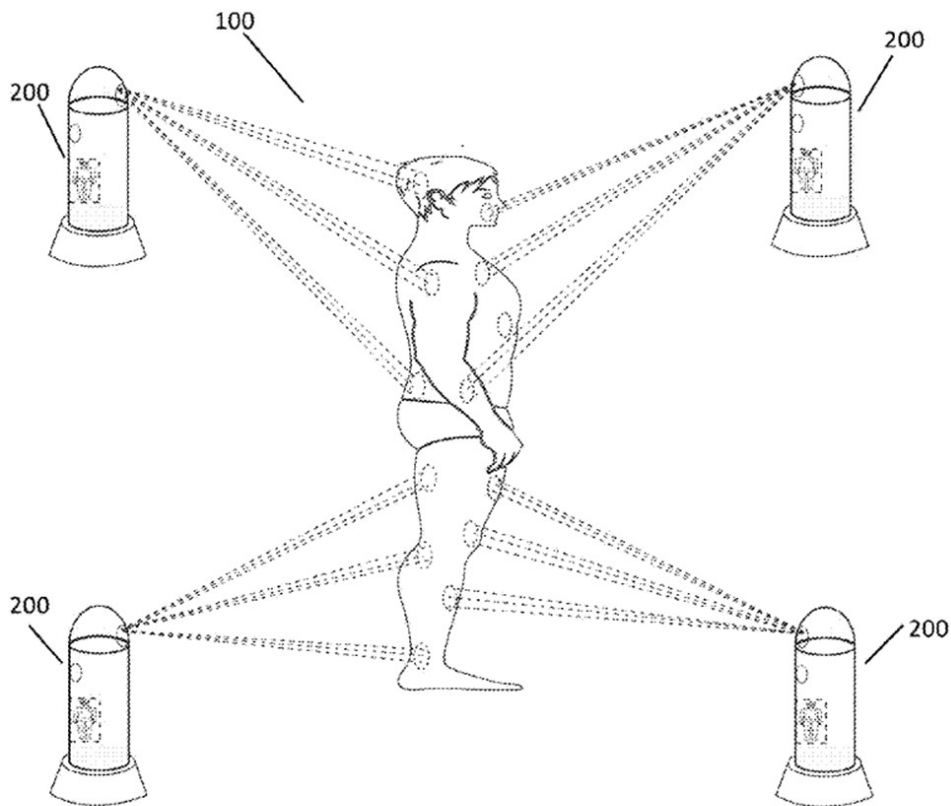


FIG. 9

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses a first light therapy device comprising a first housing and a first plurality of lights configured to emit at least one of red light and near infrared light. Ex. 1002, ¶144.

2. Limitation 1[b]

Dijkstra discloses a second light therapy device comprising a second housing and a second plurality of lights configured to emit at least one of red light and near infrared light. The '719 patent describes “the second light therapy device

12b may include a second housing 14b, a second plurality of lights 16b, and a second communication module 24b. The second plurality of lights 16b may be mechanically coupled to the second housing 14b. In some embodiments, the second plurality of lights 16b may be red lights, near infrared lights, or some combination of red lights and near infrared lights.” Ex. 1001, 5:26-35. *Dijkstra* shows in Figs. 8 and 9 a light therapy system, comprising at least two light therapy devices (200), each with a housing (210) and configured to emit red and near-infrared light. Ex. 1004 [0019, 0063, 0067, 0129, 0133]. *Dijkstra* teaches that each light device is identical. Ex. 1001, [0096]; Ex. 1002, ¶¶146-147.

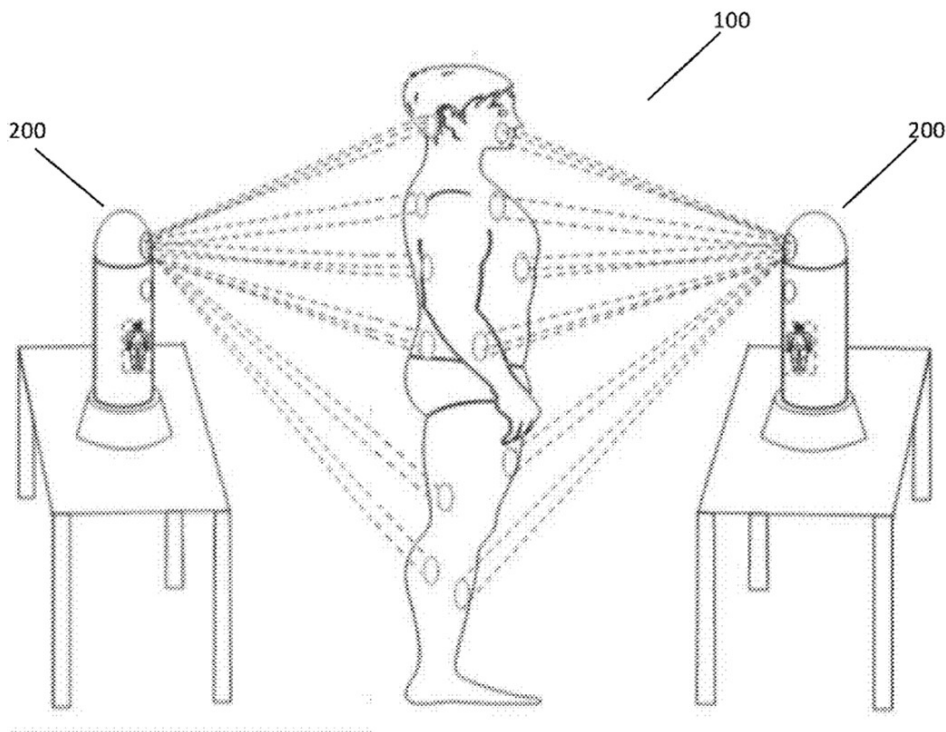


FIG. 8

In all three related patent prosecutions, the Examiners found that *Dijkstra*

discloses a first light therapy device comprising a second light therapy device comprising a second housing and a second plurality of lights configured to emit at least one of red light and near infrared light. Ex. 1002, ¶148.

3. Limitation 1[c]

Dijkstra discloses communicatively coupling the first light therapy device directly to the second light therapy device. *Dijkstra* discloses communicatively coupling the first light therapy device directly to the second light therapy device. The '719 patent describes a “the light therapy system 10 having a second light therapy device 12b, which is communicatively coupled to the first light therapy device 12a.” Ex. 1001, 5:25-28. The '719 patent explains that “the light therapy devices 12 are communicatively coupled to each other. In this regard, the first therapy device 12a may be communicatively coupled to the second light therapy device 12b whereby either of the devices 12 is able to control the other respective device 12. Such functionality may allow one or more light devices 12 to act as one cohesive system to more effectively provide treatment for a patient.” Ex. 1001, 5:39-46; Ex. 1002, ¶150.

Dijkstra teaches that the second light therapy device is configured to communicatively couple to the first light therapy device via either a wired or wireless connection. Ex. 1004, [0099, 0101]. Like the '719 patent, *Dijkstra* explicitly allows the devices to synchronize. Ex. 1004, [0096, 0099] (“The first

and second device establish a connection through wired or wireless means with each other in order to work in synchronization.”) *Dijkstra* describes that the communicative coupling can be used to establish in master-slave operations where “[a]ll the light therapy devices including master light therapy device and slave light therapy devices are linked with each other and forming a peer to peer network. In this, the master light therapy device has a controlling unit which is controlling the other slave light therapy devices, each of the slave light therapy devices is having a communication module to communicate with the master light therapy device and a light projection unit works as per the master light therapy device input.” Ex. 1004, [0099)]; Ex. 1002, ¶151.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses communicatively coupling the first light therapy device directly to the second light therapy device. Ex. 1002, ¶152.

4. Limitation 1[d]

Dijkstra discloses emitting at least one of red light and near infrared light from at least a portion of the first plurality of lights and at least a portion of the second plurality of lights. The ’719 patent describes that “the first plurality of lights 16 a may be red lights, near infrared lights, or some combination of red lights and near infrared lights.” Ex. 1001, 5:16-20. *Dijkstra* also teaches the emission of both red and infrared light therapy wavelengths for treatment. Ex.

1001, [0063, 0067]. In particular, *Dijkstra* discloses that the light therapy device can emit light in a range of 100-1600 nm wavelength. Ex-1004 [0063, 0067]. Red and near-infrared light fall within the disclosed 100-1600 nm range. Indeed, a POSITA would understand that the 100-1600 nm wavelength range includes red light and near-infrared light. For examples, wavelengths in the range of 800-1072 nm disclosed in paragraph [0037] of *Dijkstra* is in the near-infrared spectrum. Wavelengths in the range of 632-904 nm and 660-905 nm disclosed in paragraph [0129] of *Dijkstra* includes the red light spectral range and the near-infrared range. Ex. 1004, [0129]. *Dijkstra* also discloses using a light wavelength of 1072 nm in paragraph [0130] which is in the near-infrared spectrum. Ex. 1004, [0130]. Finally, *Dijkstra* teaches that each light device is identical and as such each light device would have the capability to emit light in the above ranges. Ex. 1004, [0096]; Ex. 1002, ¶¶154-155.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses emitting at least one of red light and near infrared light from at least a portion of the first plurality of lights and at least a portion of the second plurality of lights. Ex. 1002, ¶156.

5. Limitation 1[e]

Dijkstra discloses placing the first light therapy device in a lead mode; and placing the second light therapy device in a follow mode whereby the second light

therapy device performs operations as instructed by the first light therapy device.

Dijkstra teaches a “master-slave model” where any of the therapy devices (200) can act as the lead/master or the follow/slave device. Ex, 1004 [0101]. For example, “the two or more light therapy devices are used in which one light therapy device acts as a master light therapy device and the rest of the light therapy devices acts as a slave to the master light therapy device. All the light therapy devices including master light therapy device and slave light therapy devices are linked with each other and forming a peer to peer network.” Ex. 1004 [0099].

Dijkstra discloses that “the master light therapy device has a controlling unit” that instructs all other slave light therapy devices “per the master light therapy device input” via a wired or wireless connection” with the slave light therapy devices. Ex. 1004 [0099]. Notably, during prosecution and reexamination of the related patents, the patent owner admitted that *Dijkstra* discloses a master/slave configuration whereby the second light therapy performs operations as instructed by the first light therapy device. Ex. 1002, ¶¶158-159.

Dijkstra teaches that the user places the first light therapy device in a lead mode and the second light therapy device(s) in follow mode. “To use this, the user activates the master light therapy device and the master light therapy device establishes a wired or wireless connection with other slave light therapy devices.” Ex. 1004, [0099]. The user can activate the light device by using a touchscreen or

remote device to turn on the light therapy system and “establish a connection through wired or wireless means with each other in order to work in synchronization.” Ex. 1004 [0096]. *Dijkstra* then describes how the synchronization of the light therapy devices can be achieved using a master/slave model where “one light therapy device acts as a master light therapy device and the rest of the light therapy devices acts as a slave to the master light therapy device.” Ex. 1004 [0099]. Because “the first and second light devices are identical to each other,” either device may be place in master/lead mode with other device(s) in slave/follow mode. Ex. 1004 [0096, 0099]; Ex. 1002, ¶160.

A person of ordinary skill in the art would be highly motivated to design and manufacture the devices of *Dijkstra* so they could be switched between master or slave mode using a switch as such a configuration would simplify manufacturing and installation and also reduce production and installation costs. For example, incorporating the switch into each device would simplify the design, manufacturing, assembly and installation of the devices of *Dijkstra* while also reducing production costs. If the devices of *Dijkstra* were designed to either be master or slave units, then the manufacturer would need to design and produce two different types of units, each of which would have its own manufacturing assembly lines, work instructions, quality control/testing requirements and warehouse locations. Final installation would require the correct number of master and the

personnel installing the units would need to ensure that they were using either a master unit or a slave unit as required. Since the necessary switch would be a small and low-cost component, manufacturing efficiency and cost could be reduced by simply incorporating the switch into each unit. This would allow for manufacturing using a single manufacturing assembly line, set of work instructions, and set of quality control/testing equipment and requirements. The savings associated with a common manufacturing process would more than compensate for the cost of a switch. Additionally, since all units would be identical, they could all be stored in a common location. Installation would merely require the requisite number of units without concern about the correct number of master and slave units. Further, the by allowing the personnel installing the units to determine which operate as master units and which operate as slave units, installation time is decreased resulting in additional economic benefits. Ex. 1002, ¶161.

Alternatively, it would be obvious based on a POSITA's knowledge that the *Dijkstra* light therapy system is placed in lead/follow configuration when the connection between the light devices is established. *Dijkstra* teaches that user activates the first and second light therapy devices by turning ON the power button. Ex. 1004, [0096]; *Dijkstra* further discloses that upon activation, the first and second device "establish a connection through a wired or wireless connection with each other in order to work in synchronization." Ex. 1004, [0096]. A

POSITA would understand that a synchronization of the first and second devices could take the form a “master-slave model” explicitly disclosed. Ex. 1004, [0099]. Thus, a POSITA would understand that the activation of the light therapy system would establish light device synchronization and initiate (*e.g.*, place) the light therapy devices in master/lead and slave/follow operation. Ex. 1002, ¶¶162, 164.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses emitting at least one of red light and near infrared light from at least a portion of the first plurality of lights and at least a portion of the second plurality of lights. Ex. 1002, ¶163.

Claim 1 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge. Ex. 1002, ¶165.

6. Dependent Claim 2

Independent and underlying claim 1 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge. Ex. 1002, ¶¶166-172.

Dijkstra discloses the dependent claim limitation of claim 2: wherein the emitting at least one of red light and near infrared light from at least the portion of the first plurality of lights and at least the portion of the second plurality of lights is accomplished using a control panel coupled to the first housing of the first light therapy device. The ’719 patent describes that “a first control panel 100a located on the first housing 14a and communicatively coupled to the first communication

module 24a. The first control panel 100a may allow a user to control a treatment time and cause at least a portion of the first plurality of lights 16a to either emit or not emit red light or near infrared light.” Ex. 1001, 8:27-33; Ex. 1002, ¶167.

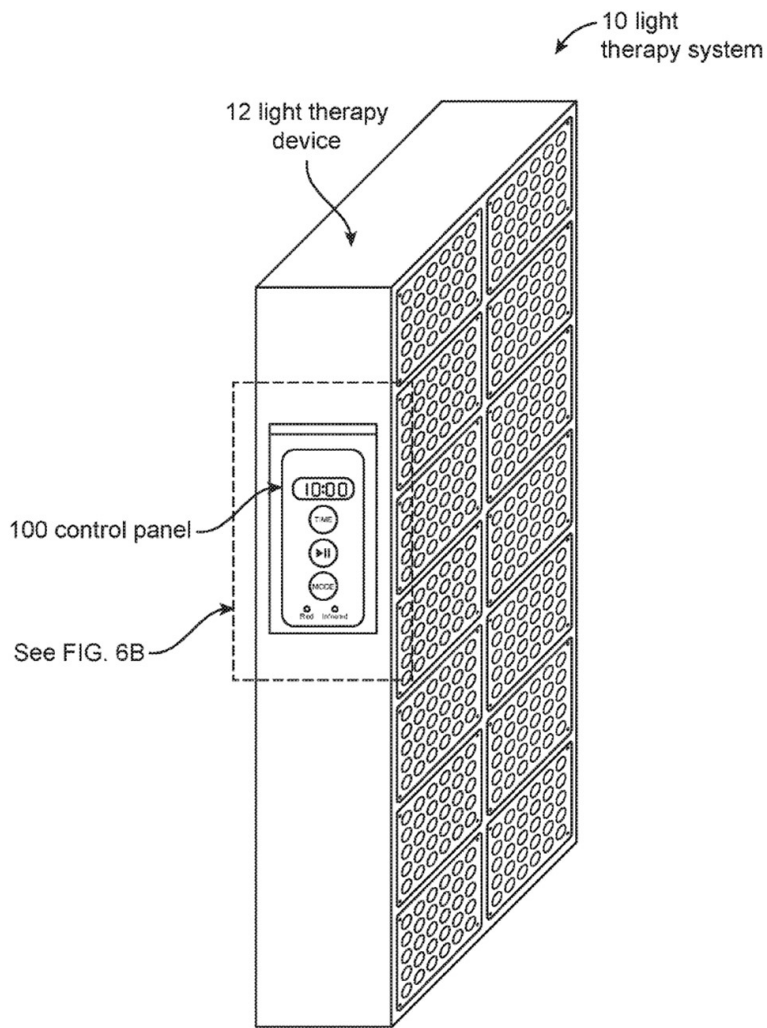


FIG. 6A

Dijkstra also describes the display unit 160 is a touchscreen display mounted on the outer surface of the light therapy device acting as an input unit, in which the user can manually select and prioritize the external body condition and/or the

internal body condition based upon his/her own intellect.” Ex. 1004, [0090]. This touchscreen control panel allows “the user can determine the type of treatment required for a particular body condition and can also determine the time and intensity required for the treatment.” Ex. 1004, [0090]; Ex. 1002, ¶168.

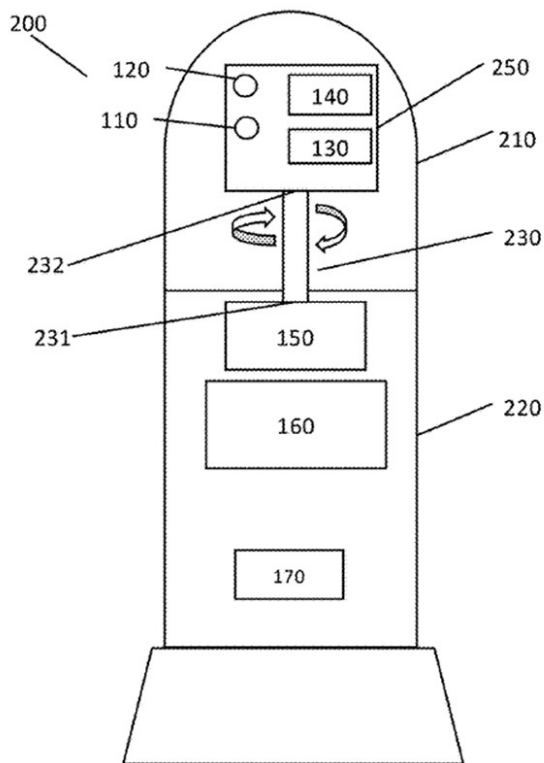


FIG. 2

Dijkstra discloses that the type of treatment required can include emitting “light in a range of 100-1600 nm wavelength” which includes red light (620 to 750 nm) and near infrared light (800 to 2,500 nm). Ex. 1004, [0063, 0067, 0090].

Dijkstra teaches that each light therapy devices can emit different wavelengths because the first and second light therapy devices have separate treatment areas for

body conditions. Ex. 1004, [0096]. Thus, a POSITA would understand that each of the light therapy devices can be configured to emit red or near infrared light. The touchscreen control panel disclosed in *Dijkstra* could be used to control the individualized emission of specific light wavelengths from each light therapy device. Ex. 1002, ¶169.

A person of ordinary skill in the art would understand that a single touchscreen control panel being used to control the individualized emission of specific light wavelengths from each light therapy device would be highly desirable as the alternative require a user to access control panels on each and every light therapy device which would complicate operation and increase the chances for erroneous settings to be emitted. For this reason alone, a person of ordinary skill in the art would be motivated to design the devices of *Dijkstra* to operate in this manner. Ex. 1002, ¶170.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses wherein the emitting at least one of red light and near infrared light from at least the portion of the first plurality of lights and at least the portion of the second plurality of lights is accomplished using a control panel coupled to the first housing of the first light therapy device. Ex. 1002, ¶171.

Claim 2 is rendered obvious by *Dijkstra* alone or in combination with a POSITA's knowledge. Ex. 1002, ¶172.

D. Dependent Claim 3

Dijkstra discloses the limitation of claim 3: pressing a first input button on the control panel of the first light therapy device, wherein the emitting occurs in response to the pressing. Ex. 1002, ¶173-180.

The '719 patent describes that “a first control panel 100 a located on the first housing 14a and communicatively coupled to the first communication module 24a. The first control panel 100a may allow a user to control a treatment time and cause at least a portion of the first plurality of lights 16a to either emit or not emit red light or near infrared light,” Ex. 1001, 8:30-34, “the control panel 100 having a plurality of input buttons 110, a time button 112, a play/pause button 114, a mode button 116, and a pair of indication lights 120.” Ex. 1001, 8:42-47. The '719 patent teaches that the control features of the light therapy device may be actuated by “pressing” the button. Ex. 1001, 8:49-56; Ex. 1002, ¶176.

Dijkstra teaches that user activates the first and second light therapy devices by turning ON the power button. Ex. 1004, [0096]. “[A] user switches on the light therapy device 200 by using a power button (not shown) mounted on an outer surface of the light therapy device 200 and puts at least one portion of the user body in front of the camera unit 120.” Ex. 1004 [72]. After activation of the power button, the light devices synchronize, scan and identify treatment areas and “project light on their respective treatment portions.” Ex. 1004, [0096]. “A user

can choose individual configuration and use with all available power, wavelengths frequencies and functions.” Ex. 1004, [0119]; Ex. 1002, ¶177.

A POSITA would understand that touching the touchscreen would amount to pressing one finger to the touchscreen to activate the light therapy system. Moreover, it would have amounted to an obvious choice in engineering design to those of ordinary skill in the art before the invention to have configured *Dijkstra* to be controlled by a touchscreen panel rather than a conventional analog button panel. Ex. 1002, ¶178.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses pressing a first input button on the control panel of the first light therapy device, wherein the emitting occurs in response to the pressing. Ex. 1002, ¶179.

Claim 3 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge. Ex. 1002, ¶180.

E. Dependent Claim 9

Dijkstra discloses the limitation of claim 9: pausing the emitting in response to pressing a first input button on the control panel of the first light therapy device. Ex. 1002, ¶¶181-187.

The ’719 patent describes that “a first control panel 100a located on the first housing 14a and communicatively coupled to the first communication module 24a. The first control panel 100a may allow a user to control a treatment time and cause

at least a portion of the first plurality of lights 16a to either emit or not emit red light or near infrared light,” Ex. 1001, 8:30-34, “the control panel 100 having a plurality of input buttons 110, a time button 112, a play/pause button 114, a mode button 116, and a pair of indication lights 120.” Ex. 1001, 8:42-47. The ’719 patent teaches that the control features of the light therapy device may be actuated by “pressing” the button. Ex. 1001, 8:49-56; Ex. 1002, ¶183 .

While *Dijkstra* does not explicitly disclose pausing the emission of light by pressing a control button, *Dijkstra* describes the display unit 160 is a touchscreen display mounted on the outer surface of the light therapy device acting as an input unit.” Ex. 1004, [0090]. This touchscreen control panel allows “the user can determine the type of treatment required for a particular body condition and can also determine the time and intensity required for the treatment.” Ex. 1004, [0090]. *Dijkstra* teaches that user activates the first and second light therapy devices by turning ON the power button. Ex. 1004, [0096]. The touchscreen display acts as an input unit and a POSITA would understand from *Dijkstra* that the touchscreen control panel could be used to pause or turn off the emission of light after treatment. Ex. 1004, [0090]. A POSITA would also understand that touching the touchscreen would amount to pressing one finger to the touchscreen to pause the emission of the light therapy system. A person of ordinary skill in the art would understand that one of the highly desirable features of touchscreen displays is that

they can be configured to allow simple actions such as turning a function (or device) on or off by the simple action of a user pressing an indicated area of the touchscreen display via the operating software of the touchscreen display. Ex. 1002 ¶¶184-185.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses pausing the emitting in response to pressing a first input button on the control panel of the first light therapy device. Ex. 1002, ¶186.

Claim 9 is rendered obvious by *Dijkstra* alone or in combination with a POSITA's knowledge. Ex. 1002, ¶187.

F. Dependent Claim 10

Dijkstra discloses the limitations of claim 10: selecting the lead mode via a first switch coupled to the first light therapy device, wherein the first light therapy device is placed in the lead mode via the first switch; and selecting the follow mode via a second switch coupled to the second light therapy device, wherein the second light therapy device is placed in the follow mode via the second switch. Ex. 1002, ¶¶188-196.

The parties have agreed that switch should be construed as an “interactive interface.” Moreover, the Patent Owner has asserted that “[Petitioner’s] Manuals, promotional videos and social media posts instruct users to configure and use the therapy systems using 2 LED panels and configure them in a lead or follow mode

via a respective switch on each LED panel.” Ex. 1014 at 51. The Patent Owner contends that “[t]he switch is either software or mechanical or the Mode control on the LED panel.” Ex. 1014 at 51; Ex. 1002, ¶190.

Dijkstra specifically discloses a touchscreen control panel used to provide input to a controlling unit that can control the synchronization and configuration of master/slave operation. In particular, *Dijkstra* discloses that “the master light therapy device has a controlling unit” that instructs all other slave light therapy devices “per the master light therapy device input” via a wired or wireless connection” with the slave light therapy devices. Ex. 1004 [0099]. *Dijkstra* teaches that the user places the first light therapy device in a lead mode and the second light therapy device(s) in follow mode. “To use this, the user activates the master light therapy device and the master light therapy device establishes a wired or wireless connection with other slave light therapy devices.” Ex. 1004, [0099]. The user can activate the light device by using a touchscreen or remote device to turn on the light therapy system and “establish a connection through wired or wireless means with each other in order to work in synchronization.” Ex. 1004 [0096]. *Dijkstra* then describes how the synchronization of the light therapy devices can be achieved using a master/slave model where “one light therapy device acts as a master light therapy device and the rest of the light therapy devices acts as a slave to the master light therapy device.” Ex. 1004 [0099]. *Dijkstra* states

that "in some systems, a master is elected from a group of eligible devices, with the other devices acting in the role of slaves;" those having ordinary skill in the art before the invention would have understood this to mean that there is a switch to enable the preferred mode. Ex. 1004 [1010]. Because "the first and second light devices are identical to each other," all the light devices have a switch which allows the user to select lead/follow operation. Ex. 1004 [0096, 0099]; Ex. 1002, ¶191.

Dijkstra describes controlling unit 130 as "having a processor in order to control the lighting unit 110." Ex. 1004, [0062]. A POSITA would understand that the controlling unit would receive input signals from the touchscreen control panel 160. "The controlling unit 130 allows the light projection unit 110 to project a light on the at least one external body condition and/or the at least one internal body condition according to the treatment profile." Ex. 1004, [0077] *Dijkstra* describes how the treatment profile can be accomplished via a "master/slave model." Ex. 1004, [0099, 0101]; Ex. 1002, ¶192.

In order to configure "the master light therapy device" which controls "all other slave light therapy devices" as taught by *Dijkstra*, a POSITA would understand that one would need to designate and select a master device and designate and select the slave device and that this is accomplished via the touchscreen control panel located on each light therapy device. Ex. 1002, ¶193.

During the '635 patent reexamination, Examiner found that *Dijkstra* teaches that the first light therapy device and the second light therapy device are each configured to operate in one of a lead mode and a follow mode (master and slave at [0099]), wherein when the first light therapy device operates in the lead mode and the second light therapy device operates in the follow mode the second light therapy device performs operations as instructed by the first light therapy device.” Ex. 1008 at 106; Ex. 1002, ¶194.

Claim 10 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge. Ex. 1002, ¶¶195-196.

G. Dependent Claim 11

Dijkstra discloses the limitation of claim 11: indicating, via a first pair of indication lights on the first light therapy device, whether at least one of red light and near infrared light is being emitted from at least the portion of the first plurality of lights. Ex. 1002, ¶¶197-203.

The '719 patent teaches that “[t]o make it easier to determine which lights are active, some embodiments feature a pair of indication lights 120 located on the control panel 100. One light of the pair of indication lights 120 may be labeled red and the other may be labeled near infrared or simply infrared. The pair of indication lights 120 may indicate to a user the typed of light that will be emitted when the treatment starts or continues by illuminating one or both indication lights

120.” Ex. 1001, 9:59-66; Ex. 1002, ¶200.

Dijkstra describes a touchscreen display for selecting type of treatment, time and intensity. On of ordinary skill in the art would understand that that such a display would indicate the types of light used in the treatment. Indeed, indicator lights would have been well known and understood by a person of ordinary skill in the art to be desirable features. They would be especially desirable for devices that emit near infrared light which is not within the visible spectrum. Without at least an indication light to notify a user that a device was emitted near infrared light, a user would have no indication of whether or not a device was emitting near infrared light. Even without the special considerations involving near infrared light, a person of ordinary skill in the art would understand that therapy systems provide medical treatment and that use of indicator lights would help to ensure operators that the proper therapy is being delivered. For this reason alone, a POSITA would be highly motivated to incorporate indication lights in any therapy device that designed to emit red and/or near infrared light. Ex. 1004 at [0090], Ex. 1002, ¶¶199, 201.

The Examiner in the reexaminations of the '495 and '635 patents concluded that Dijkstra taught a pair of indication lights indicating whether a red light and near infrared light is being emitted. Ex. 1002, ¶202.

Claim 11 is rendered obvious by *Dijkstra* alone or in combination with a

POSITA's knowledge. Ex. 1002, ¶203.

H. Dependent Claim 16

Dijkstra discloses the limitation of claim 11: communicatively coupling the first light therapy device directly to the second light therapy device comprises coupling the first light therapy device and the second light therapy device via a wired connection. The '719 patent describes that the “the light therapy devices 12 may be communicatively coupled in any combination of series and parallel wired connections.” Ex. 1001, 7:48-50; Ex. 1002, ¶204-208.

Dijkstra teaches that the first light therapy device and the second light therapy device are configured to communicate directly via a wired connection. Ex. 1004, [0096]. “The first and second device establish a connection through wired or wireless means with each other in order to work in synchronization.” Ex. 1004, [0096]. *Dijkstra* explicitly discloses that the first light device is communicatively coupled directly to the second light therapy device via a wired connection. Ex. 1002, ¶206.

In all three related patent prosecutions, the Examiners found that *Dijkstra* discloses communicatively coupling the first light therapy device directly to the second light therapy device comprises coupling the first light therapy device and the second light therapy device via a wired connection. Ex. 1002, ¶207.

Claim 16 is rendered obvious by *Dijkstra* alone or in combination with a

POSITA's knowledge. Ex. 1002, ¶208.

I. Dependent Claim 17

Dijkstra discloses the limitations of claim 17: coupling the first light therapy device and the second light therapy device via the wired connection comprises: inserting a first end of a communication cable into a first communication port on the first light therapy device; and inserting a second end of the communication cable into a second communication port on the second light therapy device. Ex. 1002, ¶¶209-220.

The '719 patent describes that the “the light therapy devices 12 may be communicatively coupled in any combination of series and parallel wired connections.” Ex. 1001, 7:48-50. It teaches that “the first communication cable 28 a may be inserted into the first plurality of communication ports 26a and the second plurality of communications ports 26b,” Ex. 1001, 7:48-50, and that “a communication cable 28 may be inserted into the pluralities of communication ports 26 to communicatively couple the light therapy devices 12.” Ex. 1001, 6:57-60; Ex. 1002, ¶212.

Dijkstra teaches that the first light therapy device and the second light therapy device are configured to communicate directly via a wired connection and that the master-slave relationship with the slave devices having a communication module to communicate with the master, where the wired communication would

include the recited communication cable. Ex. 1004, [0096. 0099]. Those having ordinary skill in the art before the invention would have understood that the wired connection embodiment inherently includes such a cable and ports on each device. Ex. 1002, ¶213.

A POSITA would also have understood that it was commonplace to design a cable port interface where the respective ends of the communication cable are inserted in the respective ports of the communication modules of each light therapy device. A POSITA would understand that use of cables and ports for wired connections would be the most practical and feasible means of creating such a system as the alternative would complicate manufacture and installation. Further, devices with permanent wired communication cables would need to include a sufficient length of wire for the largest designed separation. However, since most installations would not require the maximum length of communication wire, the surplus wire would add to the production or manufacturing cost and the personnel installing units would need to coil and secure the surplus length of wire. This would increase the time and effort for installation, further increasing costs. A POSITA would also be well aware of and motivated to use standard communication cables such as USB, CAT5, or other industry standard cables which would be readily available at low cost in various lengths. Such wires would already have standardized connectors which means that a POSITA would merely

have to select a standard connection or communication port during the design phase. These reasons by themselves provide sufficient motivation for a POSITA to use standard communication cables and ports. Further, a POSITA would understand that the term “hard-wired” to mean communication over physical wires with standardized plug connectors and ports on devices rather than permanently connected wires. This understanding of a POSITA is reinforced by the fact that the other means of sending signals from a master to a slave unit (*i.e.*, infrared signals, radio signals) do not require wires or cables for transmission. Ex. 1002, ¶¶214-218.

The Examiner in the reexamination of the '495 patent concluded that *Dijkstra* taught “that the first light therapy device comprises a first plurality of communication ports and the second light therapy device comprises a second plurality of communication ports, the light therapy system further comprising a communication cable having a first end coupled to a first port of the first plurality of communication ports, and a second end coupled to a second port of the second plurality of communication ports. In my opinion, a communication cable having a first end coupled to a first port corresponds to “inserting a first end of a communication cable into a first communication port” which is taught in *Dijkstra*. Ex. 1002, ¶219.

Claim 17 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge. Ex. 1002, ¶220.

J. Dependent Claim 19

Dijkstra discloses the limitations of claim 17: providing a third light therapy device comprising a third housing and a third plurality of lights configured to emit at least one of red light and near infrared light; providing a fourth light therapy device comprising a fourth housing and a fourth plurality of lights configured to emit at least one of red light and near infrared light; communicatively coupling each of the third light therapy device and the fourth light therapy device directly to at least one of the first light therapy device and the second light therapy device; and emitting at least one of red light and near infrared light from at least a portion of the third plurality of lights and at least a portion of the fourth plurality of lights. Ex. 1002, ¶¶221-229.

The '719 patent describes that “a light therapy system 10 b may comprise two or more light therapy devices communicatively coupled together” and describes how multiple light devices can be interconnected using communication modules via wired or wireless connection. Ex. 1001, 5:55-56; 6:3-34; 7:48-50. *Dijkstra* discloses Fig. 9 shows four communicatively coupled therapy devices. Ex. 1004, Fig. 9; Ex. 1002, ¶223.

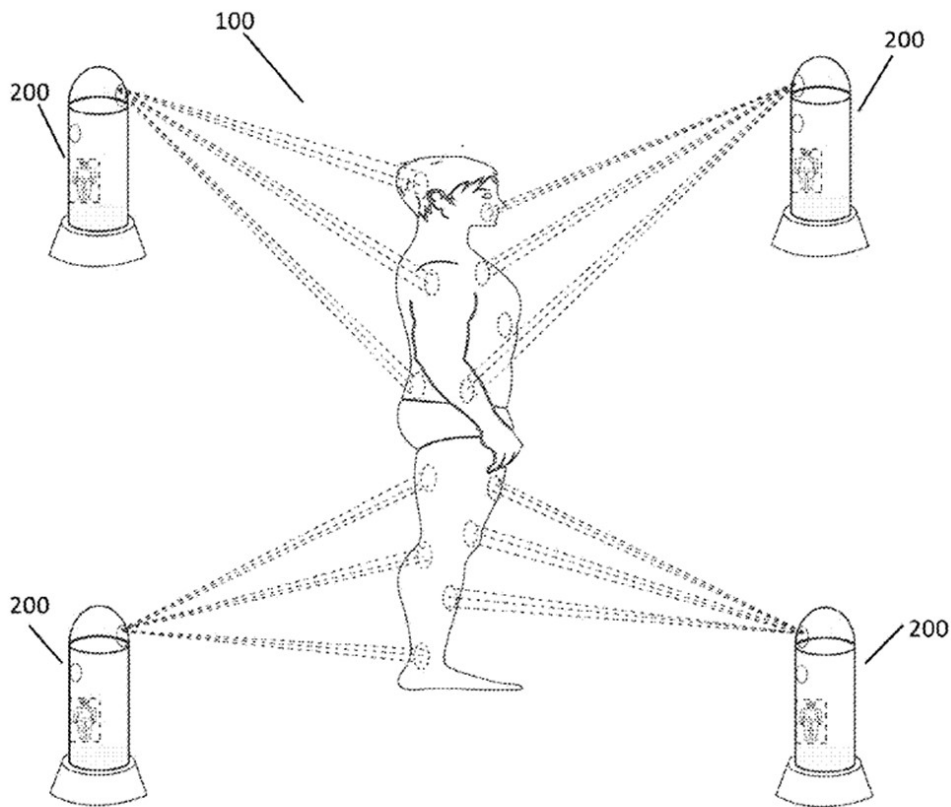


FIG. 9

Dijkstra teaches a third light therapy device (200) comprising a third housing (210), a third plurality of lights. Ex. 1004, [0019, 0129, 0133]. The third device is arranged and configured to emit red light or near-infrared light. Ex. 1004, [0063, 0067]. Because *Dijkstra* teaches that each light device is identical, *Dijkstra* discloses a fourth light therapy device similarly configured. Ex. 1004, [0096]. The third and fourth light therapy device are configured to communicatively couple to the first and second light therapy device using a wired or wireless communication. Ex. 1004, [0021, 0099, 0101]; Ex. 1002, ¶¶224, 227.

A POSITA would understand that the design of a phototherapy device would

depend on the target area for the therapy. In a system designed to treat the entire body, a rectangular shape with a high aspect (length to width) ratio would be desirable. For such a system, it would be highly desirable to design the system using multiple panels, more specifically in some cases this would mean the use of four panels. Ex. 1002, ¶¶225-226.

The Examiner in the prosecution of the '172 patent concluded that *Dijkstra* taught a third and fourth light therapy devices communicative coupled to the first and second light therapy devices. Ex. 1002, ¶228.

Claim 19 is rendered obvious by *Dijkstra* alone or in combination with a POSITA's knowledge. Ex. 1002, ¶229.

IX. GROUND 2: CLAIMS 1, 2, 3, 9, 10, 11, 16, 17, 19 ARE OBVIOUS IN VIEW OF *DIJKSTRA*, POSITA'S KNOWLEDGE AND *NORWOOD*

A. Overview of *Norwood*

Norwood discloses in an analogous art of lighting a plurality of illuminated diffusers and addressed the “problem is that conventional diffusers typically do not have suitable controllability for varying the emission of light and/or fragrance. Ex. 1005, [0013]. *Norwood* teaches that the diffusers can include “a light array 542 including a plurality of different color LEDs. In particular, light array 542 includes a plurality of red LEDs 540 a, blue LEDs 540 b, and green LEDs 540 c. The plurality of LEDs can be individually activated and controlled to adjust their

respective colors and intensities.” Ex. 1005, [0110]. *Norwood* further describes that individual diffusers can be used together and communicatively coupled together. Ex. 1005, [0136]. *Norwood* teaches that the connected diffusers are controlled using control logic that “may first be controlled via a master/slave switch 642. When switch 642 is set in the slave position, control logic 640 is provided with external signals for setting operation of the diffusers 600. For instance, if a plurality of individual diffusers 600 are being used together, one can be designated a master, and the rest slaves.” Ex. 1005, [0135]. In this operational scheme, “the slave devices receive signals from the master dictating the operation of each slave. The signals may be provided from the master to the slaves through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals.” Ex. 1005, [0136]; Ex. 1002, ¶230.

In the reproduction of FIG. 17 of *Norwood* below, RF transceiver is highlighted in orange. Ex. 1002, ¶231.

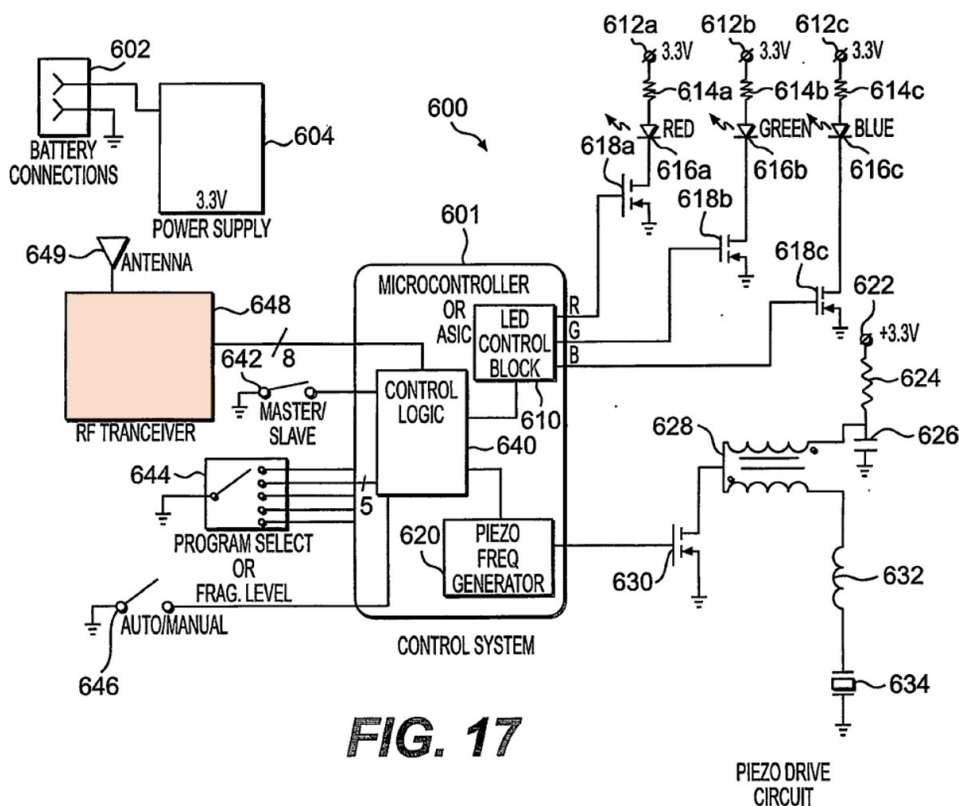


FIG. 17

B. Independent Claim 1

1. [1Preamble]

Dijkstra discloses elements [1Preamble] as noted in Ground 1. Ex-1002 ¶¶ 138-141.

2. Limitation [1a]

Dijkstra discloses this limitation [1a] as noted in Ground 1. Ex. 1002, ¶234.

Norwood teaches that the diffusers can include “a light array 542 including a plurality of different color LEDs. In particular, light array 542 includes a plurality of red LEDs 540 a, blue LEDs 540 b, and green LEDs 540 c. The plurality of LEDs can be individually activated and controlled to adjust their respective colors

and intensities.” Ex. 1005, [0110]; Ex. 1002, ¶235.

A person of ordinary skill in the art would be aware that LEDs capable of emitting different wavelengths were readily available. Indeed, a POSITA would know that the first LEDs were developed in the early 1960s emitted infrared light and that shortly thereafter, LEDs that emitted red light had been developed. It is well within the capabilities of a POSITA to modify a given LED device to use LEDs that emit light at a different range of wavelengths. Further, a POSITA would be well aware of the use of both red light and near infrared light for phototherapy and would be motivated to design LED therapy systems that emitted red light, near infrared light, or both red and near infrared light. Ex. 1002, ¶¶236-237.

Limitation [1a] is met by the disclosure of *Dijkstra* in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶238.

3. Limitation 1[b]

Dijkstra discloses this limitation [1b] as noted in Ground 1. Ex. 1002, ¶239. *Norwood* teaches that the diffusers can include “a light array 542 including a plurality of different color LEDs. In particular, light array 542 includes a plurality of red LEDs 540 a, blue LEDs 540 b, and green LEDs 540 c. The plurality of LEDs can be individually activated and controlled to adjust their respective colors and intensities.” Ex. 1005, [0110]; Ex. 1002, ¶240. Further, as discussed above, a POSITA would understand the determining the suitable number of panels would be

a matter of simple and well known manufacturing considerations along with the desired target for phototherapy. Ex. 1002, ¶241.

Limitation [1b] is met by the disclosure of *Dijkstra* in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶242.

4. Limitation 1[c]

Dijkstra discloses this limitation [1c] as noted in Ground 1. Ex. 1002, ¶243.

Norwood further describes that individual diffusers can be used together and communicatively coupled together. Ex. 1005, [0136]. “The signals may be provided from the master to the slaves through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals.” Ex. 1005, [0136]; Ex. 1002, ¶244.

Limitation [1c] is met by the disclosure of *Dijkstra* in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶245.

5. Limitation 1[d]

Dijkstra discloses this element as noted in Ground 1. Ex. 1002, ¶246.

Limitation [1d] is met by the disclosure of *Dijkstra* in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶247.

6. Limitation 1[e]

Dijkstra discloses this limitation [1e] as noted in Ground 1. Ex. 1002, ¶248.

Norwood describes placing the first light therapy device in a lead mode; and placing the second light therapy device in a follow mode whereby the second light therapy device performs operations as instructed by the first light therapy device.

Norwood discloses in an analogous art of lighting a plurality of illuminated diffusers (600) in which each diffuser includes a switch (642) and circuitry that allows each diffuser (600) to operate in either a lead/master mode or a follow/slave mode. Ex. 1005, [0135]. *Norwood* teaches that the connected diffusers are controlled using control logic that “may first be controlled via a master/slave switch 642. When switch 642 is set in the slave position, control logic 640 is provided with external signals for setting operation of the diffusers 600. For instance, if a plurality of individual diffusers 600 are being used together, one can be designated a master, and the rest slaves.” Ex. 1005, [0135]. In this operational scheme, “the slave devices receive signals from the master dictating the operation of each slave. The signals may be provided from the master to the slaves through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals.” Ex. 1005, [0136]. “When switch 642 is in the slave position, the RF transceiver 648 receives an external signal, through an antenna 649, from a remote control, a master-designated diffuser 600, or the like. That signal is transmitted from the RF

transceiver 648 to control logic 640 to set the presentation of light and sound through the LED control block 610 and the piezo frequency generator 620. When switch 642 is in the master position, the operation of the control logic is set by an internal program at this diffuser 600, such that microcontroller 601 acts as the master. In this case, the operational program from control logic 640 is sent to the RF transceiver 648 and broadcast to slave devices via the antenna 649.” Ex. 1005, [0137]; Ex. 1002, ¶249.

Figure 17 discloses master/slave switch 642. In the reproduction of FIG. 17 of Norwood below, the master/slave switch is highlighted in green. Ex. 1002, ¶250.

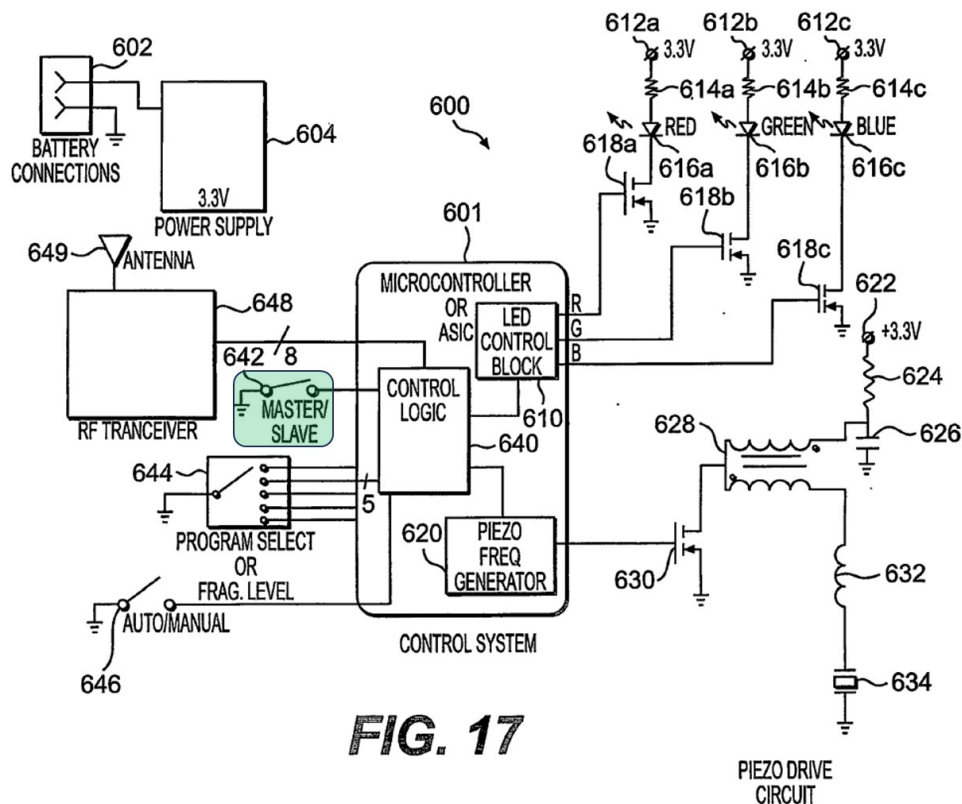


Figure 18 describes how the master/slave switch 642 controls the operation

of the individual diffusers based on one's designation as either a master or a slave.

“If it is set as a master, the program proceeds to step S7 to enable the RF transceiver to transmit the program to slave devices. In step S8, a program selection is checked from among five different programs to be selected.” Ex. 1005, [0141]. “In step S9, the set program is transmitted to RF transceiver 648 to be sent to the slave devices, and LED control block 610 and piezo frequency generator 620, to set the presentation. In step S10, the piezo duty cycle is set in piezo frequency generator 620. In step S11, the LED duty cycles are set in LED control block 610, based on the set presentation.” Ex. 1005, [0143]. “If the slave setting is set at step S6, the program proceeds to step S13, in which RF transceiver 648 is enabled to receive a signal from a master device. In step S14, the piezo frequency generator 620 sets a duty cycle in accordance with a signal received from the master device. In step S15, the LED control block 610 sets duty cycles for the LEDs based on the received signal from the master device. In step S16, the piezo frequency generator 620 and LED control block 610 turn off if the RF transceiver 448 times out.” Ex. 1005, [0143]. Ex. 1002, ¶251.

Norwood explicitly discloses “placing the first light therapy device in a lead mode; and placing the second light therapy device in a follow mode whereby the second light therapy device performs operations as instructed by the first light therapy device” utilizing the disclosed switch. Ex. 1002, ¶252.

In view of the teachings of *Norwood* it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify *Dijkstra* et al. by adding a switch (642) and circuitry to each of the light therapy devices (200) since this would allow each of the light therapy devices (200) to act as either the lead or the follower which makes the system of light therapy devices more flexible, in that any of the devices can be a lead or a follower. Moreover, the addition of the switch (642) and circuitry of *Norwood* to each of the light therapy devices of *Dijkstra* would allow for easier and quicker selection of the lead mode and the follow mode of each light therapy device. Given the combined teachings, those having ordinary skill in the art before the invention would have understood how to implement the switching that is inherent in the *Dijkstra* device, by incorporating the master/slave switch of *Norwood* in order to enable the required switching capabilities in *Dijkstra* as a mere substitution of well-established switching arrangements for selection of a master or slave mode. Ex. 1002, ¶253.

Further, as described above, a person of skill in the art would understand that use of a switch to determine whether a unit operates as a master or slave simplifies both manufacturing and installation while simultaneously reducing time and costs for both. For this reason alone, a POSITA would be motivated to use a switch to determine the master/slave functionality of a unit. Ex. 1002, ¶254.

This exact combination of *Dijkstra* and *Norwood* was applied to the very similar claim in during the prosecution of the related '172 patent. Ex. 1013 at [172 prosecution history at 07.05.2002.] In response, the Patent Owner admitted that “Dijkstra and Norwood both disclose a ‘master/slave mode.’” Ex. 1002, ¶¶255-256.

Claim 1 is rendered obvious by *Dijkstra*, a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶257.

C. Claim 2

Independent and underlying claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶258.

Dijkstra discloses Claim 2 as noted in Ground 1. Ex. 1002, ¶259.

Dependent claim 2 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶260.

Claim 2 is rendered obvious by *Dijkstra*, a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶261.

D. Claim 3

Independent claim 1 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶262.

Dependent claim 2 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶263.

Dijkstra discloses Claim 3 as noted in Ground 1. Ex. 1002, ¶264.

Claim 3 is rendered obvious by *Dijkstra*, a POSITA's knowledge and *Norwood*. Ex. 1002, ¶265.

E. Claim 9

Independent claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶266.

Dependent claim 2 is rendered obvious by *Dijkstra* alone or in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶267.

Dijkstra discloses Claim 9 as noted in Ground 1. Ex. 1002, ¶268.

Claim 9 is rendered obvious by *Dijkstra*, a POSITA's knowledge and *Norwood*. Ex. 1002, ¶269.

F. Claim 10

Independent claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶270.

Dijkstra discloses Claim 2 as noted in Ground 1. Ex. 1002, ¶271.

Dijkstra in combination with *Norwood* disclose selecting the lead mode via a first switch coupled to the first light therapy device, wherein the first light therapy device is placed in the lead mode via the first switch; and selecting the follow mode via a second switch coupled to the second light therapy device, wherein the second light therapy device is placed in the follow mode via the second switch.

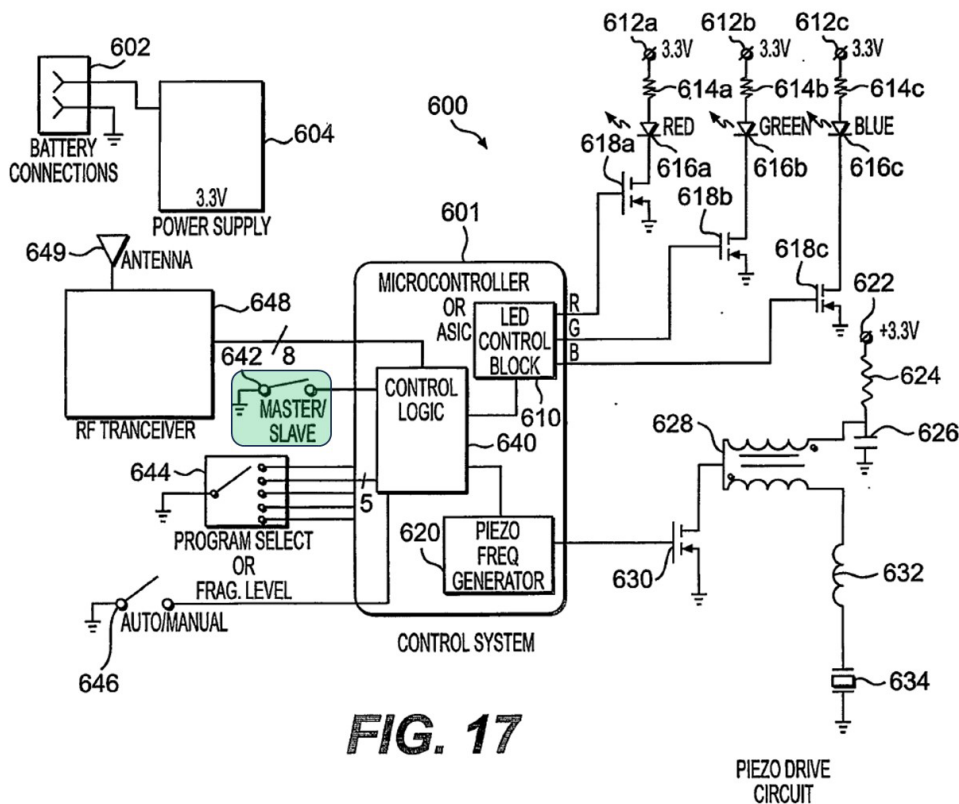
Ex. 1002, ¶272.

Norwood teaches that the connected diffusers are controlled using control logic that “may first be controlled via a master/slave switch 642. When switch 642 is set in the slave position, control logic 640 is provided with external signals for setting operation of the diffusers 600. For instance, if a plurality of individual diffusers 600 are being used together, one can be designated a master, and the rest slaves.” Ex. 1005, [0135]. In this operational scheme, “the slave devices receive signals from the master dictating the operation of each slave. The signals may be provided from the master to the slaves through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals.” Ex. 1005, [0136]. “When switch 642 is in the slave position, the RF transceiver 648 receives an external signal, through an antenna 649, from a remote control, a master-designated diffuser 600, or the like. That signal is transmitted from the RF transceiver 648 to control logic 640 to set the presentation of light and sound through the LED control block 610 and the piezo frequency generator 620. When switch 642 is in the master position, the operation of the control logic is set by an internal program at this diffuser 600, such that microcontroller 601 acts as the master. In this case, the operational program from control logic 640 is sent to the RF transceiver 648 and broadcast to

slave devices via the antenna 649.” Ex. 1005, [0137]. *See* Ex. 1002, ¶273.

(discussion re Ground 2, limitation [1e].)

Figure 17 discloses master/slave switch 642. Ex. 1002, ¶274.



The parties have agreed that switch should be construed as an interactive interface. *Norwood's* disclosure of master/slave switch 624 meets this construction. The control logic coupled with the master/slave switch 624 is an interactive interface within the meaning of the '719 patent. For all reasons discussed above with respect to Ground 2, claim limitation [1e], it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify *Dijkstra et al.* by adding a switch (642) and

circuitry as taught by *Norwood* to each of the light therapy devices (200). Ex. 1002, ¶275.

This exact combination of *Dijkstra* and *Norwood* was applied to the very similar claim in during the prosecution of the related '172 patent. Ex. 1013 at [172 prosecution history at 07.05.2002.] In response, the Patent Owner admitted that “Dijkstra and Norwood both disclose a ‘master/slave mode.’” Ex. 1002, ¶276.

Claim 10 is rendered obvious by *Dijkstra*, a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶277.

G. Claim 11

Independent claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶278.

Dijkstra discloses Claim 11 as noted in Ground 1. Ex. 1002, ¶279.

Claim 11 is rendered obvious by *Dijkstra*, a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶280.

H. Claim 16

Independent claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶281.

Dijkstra discloses Claim 16 as noted in Ground 1. Ex. 1002, ¶282.

Norwood teaches that the individual diffusions may be communicatively coupled “through any one of a number of systems, including infrared signals,

hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals.” Ex. 1005, [0136]. A POSITA would understand that a hard-wired connection is necessarily a wired connection. Ex. 1002, ¶283.

Claim 16 is rendered obvious by *Dijkstra*, a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶284.

I. Claim 17

Independent claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶285.

Dependent and underlying claim 16 is rendered obvious by *Dijkstra* alone or in combination with a POSITA’s knowledge and *Norwood*. Ex. 1002, ¶286.

Dijkstra discloses Claim 17 as noted in Ground 1. Ex. 1002, ¶287.

Norwood teaches that the individual diffusions may be communicatively coupled “through any one of a number of systems, including infrared signals, hard-wired connections, radio signals, and the like. In the control embodiment shown in FIG. 17, an RF transceiver 648 is provided to send and to receive radio signals.” Ex. 1005, [0136]. Ex. 1002, ¶288.

In my opinion, a POSITA would have understood that the “hard-wired” connection embodiment described in *Norwood* inherently includes a cable and ports on each device. A POSITA would also have understood that it was

commonplace to design a cable port interface where the respective ends of the communication cable are inserted in the respective ports of the communication modules of each light therapy device. Ex. 1002, ¶289.

Claim 17 is rendered obvious by *Dijkstra*, a POSITA's knowledge and *Norwood*. Ex. 1002, ¶290.

J. Claim 19

Independent claim 1 is rendered obvious by *Dijkstra* in combination with a POSITA's knowledge and *Norwood*. Ex. 1002, ¶291.

Dijkstra discloses Claim 19 as noted in Ground 1. Ex. 1002, ¶292.

Norwood teaches that “a plurality of individual diffusers 600 are being used together.” Ex. 1005, [0135]. Ex. 1002, ¶293.

Claim 19 is rendered obvious by *Dijkstra*, a POSITA's knowledge and *Norwood*. Ex. 1002, ¶294.

X. DISCRETIONARY DENIAL IS UNWARRANTED

The Board should not exercise its discretion to deny institution. The *Apple v. Fintiv* (IPR2020-00019) factors weigh against discretionary denial:

Factor 1: Petitioner does not intend to seek a stay as the litigation involves 6 patents.

Factor 2: As of filing this Petition, the parallel district court case is in its claim construction phase. The court has set a *Markman* hearing for March 26,

2024. *Joovv, Inc. v Mito Red Light, Inc.*, Civil Action No. Case 2:23-cv-01084-MTL (D. Ariz.) (ECF# 059). The Court has indicated to the parties that it will not issue its claim construction ruling until a date after the hearing. An expected trial date will not occur until after the statutory deadline for a written decision on the merits of the Petition. *Id.*

Factor 3: As of the time of this Petition, the parties and the court have made some progress in the parallel district court proceedings. Petitioner has answered the complaint and the court conducted an Initial Pretrial Scheduling Conference. Plaintiff/Patent Owner served Preliminary Infringement Contentions and the Petitioner has served Preliminary Invalidity contentions. Plaintiff/Patent Owner has served its Opening Claim Construction Brief and Petitioner has served its Responsive Claim Construction Brief. No fact discovery has been conducted and the fact discover period will not commence until after the court has issued its claim construction ruling.

Factor 4: There is overlap with respect to the asserted prior art and several of the patents at issue. There are seven patents asserted in the District Court case and the prior art bears on four of the asserted patents.

Factor 5: The parties are the same in the parallel proceeding.

Factor 6: To the extent the Board finds that Factors 1-5 weigh in favor of a denial, the unpatentability grounds presented here are strong and compelling. The

Dijkstra and *Norwood* references that are the basis for unpatentability in this Petition were never raised during the prosecution of the '719 patent. In particular, *Dijkstra* is a very strong invalidity reference. *Dijkstra* reads directly on the challenged '719 patent with primarily explicit disclosure as detailed in this Petition and the combination with *Norwood* renders explicit the master/slave switch inherent in *Dijkstra*.

Importantly, *Dijkstra* and *Norwood* were raised in the *ex parte* reexaminations of the '635 and '495 patents and during the prosecution of the '172 patent against claims strikingly similar to the challenged claims here based on the identical specification. The arguments raised in those examinations by the Office are the same the arguments made in this Petition. In all three instances, the Patent Owner made numerous admissions about the disclosures in *Dijkstra* and *Norwood* that are highly relevant and supportive to the arguments made in this Petition as well as substantive amendments to those claims to overcome *Dijkstra* and *Norwood* rejections. Those amendments are *not* present in the challenged claims and *Dijkstra* and *Norwood* are fatal. Importantly, with respect to the key limitations of lead/follow, the Patent Owner admitted that *Dijkstra* and *Norwood* disclosed master/slave operation and was forced to amend the claims to include a "neutral mode" not present in the challenged claims. In sum, the merits of the Petition are exceedingly strong and have been successfully applied in the *ex parte*

reexaminations of the '635 and '495 patents and during the prosecution of the '172 patent to the claims like those challenged here.

Based on the admissions made by Patent Owner and findings of the Examiners regarding the disclosures in *Dijkstra* and *Norwood* in the *ex parte* reexaminations of the '635 and '495 patents and during the prosecution of the '172 patent against claims strikingly similar to the challenged claims, the challenged claims would not have been allowed absent significant amendments similar to those made in the other proceedings. That the Patent Owner never faced these references in the prosecution of the '719 patent was simply fortuitous (for the Patent Owner); the Notice of Allowance for the '719 patent issued on October 15, 2021, which was only one week after the Patent Office issued its orders granting the '635 patent and '495 patent *ex parte* reexamination requests (October 7, 2021) and approximately three weeks before the Examiner issued the first Office Actions in those proceedings rejecting the claims based on *Dijkstra* and *Norwood* (October 10, 2021 and October 3, 2021, respectively). Granting the Petition will serve to strengthen the patent system by allowing the review of patents challenged with a sufficiently strong initial merits showing of unpatentability.

This IPR will resolve issues raised in the district court involving the challenged patent. Petitioner has promptly submitted the IPR petition and circumstances do not represent an undue delay.

XI. CONCLUSION

Petitioner respectfully requests a trial be instituted of claims 1, 2, 3, 9, 10, 11, 16, 17, 19 the '719 patent be cancelled.

XII. FEES

Petitioner has paid the filing fee via their Deposit Account. Please charge any additional fees to Deposit Account No. DA-504598.

XIII. MANDATORY NOTICES UNDER 37 C.F.R. §42.8

A. Real Parties-in-Interest Under 37 C.F.R. §42.8(b)(1)

Petitioner is the real party-in-interest. No other party had access to, control over, or contributed to funding of the preparation or filing of this Petition.

Mito Red Light, Inc. is a corporation organized under the laws of Arizona with its principal place of business at 9319 N 94th Way #400, Scottsdale, AZ 85258.

B. Related Matters Under 37 C.F.R. §42.8(b)(2)

Patent Owner sued Mito Red Light, Inc. for patent infringement. *Joovv, Inc. v Mito Red Light, Inc.*, Civil Action No. Case 2:23-cv-01084-MTL (D. Ariz.). The case is pending before Judge Liburdi. Petitioner is unaware of any other judicial or administrative matter that would affect, or be affected by, a decision in this proceeding.

C. Lead and Back-up Counsel Under 37 C.F.R. §42.8(b)(3)

Vasquez, Benisek & Lindgren LLP provides the following designation of counsel, identified in Patent Owner's Power of Attorney, filed concurrently herewith under 37 C.F.R. §42.10(b).

Lead Counsel	Back-up Counsel
Robert S. McArthur, Esq. Registration No. 45,674 VASQUEZ, BENISEK & LINDGREN LLP 1550 Parkside Drive, Suite 130 Walnut Creek, California 94596 Main Telephone (925) 637-4250 Direct Telephone (415) 699-0630 Main Facsimile (925) 403-0900 mcarthur@vblaw.com	Jeffrey T. Lindgren, Esq. (<i>Pro Hac Vice</i> motion forthcoming) VASQUEZ, BENISEK & LINDGREN LLP 1550 Parkside Drive, Suite 130 Walnut Creek, California 94596 Main Telephone (925) 637-4250 Direct Telephone (925) 297-9261 Main Facsimile (925) 403-0900 jlindgren@vblaw.com

XIV. SERVICE INFORMATION UNDER 37 C.F.R. §42.8(B)(4)

Service information for lead and back-up counsel is Vasquez Benisek and Lindgren, LLP 1550 Parkside Drive, Suite 130, Walnut Creek, CA 94596; Tel. 925-627-4250; Fax 925-403-0900. Petitioner consents to service by electronic mail at mcarthur@vblaw.com, jlindgren@vblaw.com, and poconnor@vblaw.com.

March 5, 2024
Date

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. §42.24(d), the undersigned certifies that the foregoing Petition, exclusive of the exempted portions as provided in 37 C.F.R. §42.24(a), contains 11,067 words and complies with the type-volume limitations of 37 C.F.R. §42.24(a) (fewer than 14,000). The word count was calculated by Microsoft Word.

Statistics:	
Pages	55
Words	11,067
Characters (no spaces)	57,040
Characters (with spaces)	68,074
Paragraphs	225
Lines	987

☒ Include footnotes and endnotes

Close

March 5, 2024

Date

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6(e), the undersigned certifies that the foregoing Petition and Exhibits 1001-1017 have been served simultaneously with filing. Service is via FedEx Priority Overnight, which is at least as fast and reliable as Priority Mail Express.

Pursuant to 37 C.F.R. §42.105, service of the petition and supporting evidence has been made on the patent owner at the correspondence address of record for the '719 patent, which is:

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March 5, 2024
Date

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APPENDIX A

RECITATION OF CHALLENGED CLAIMS

Claim 1
1[pre] A method for providing a light therapy treatment, comprising:
1[a] providing a first light therapy device comprising a first housing and a first plurality of lights configured to emit at least one of red light and near infrared light;
1[b] providing a second light therapy device comprising a second housing and a second plurality of lights configured to emit at least one of red light and near infrared light;
1[c] communicatively coupling the first light therapy device directly to the second light therapy device;
1[d] emitting at least one of red light and near infrared light from at least a portion of the first plurality of lights and at least a portion of the second plurality of lights;
1[e] placing the first light therapy device in a lead mode; and placing the second light therapy device in a follow mode whereby the second light therapy device performs operations as instructed by the first light therapy device.
Claim 2
The method of claim 1, wherein the emitting at least one of red light and near infrared light from at least the portion of the first plurality of lights and at least the portion of the second plurality of lights is accomplished using a control panel coupled to the first housing of the first light therapy device.
Claim 3
The method of claim 2, further comprising pressing a first input button on the control panel of the first light therapy device, wherein the emitting occurs in response to the pressing.
Claim 9
The method of claim 2, further comprising pausing the emitting in response to pressing a first input button on the control panel of the first

light therapy device.
Claim 10
The method of claim 1, further comprising: selecting the lead mode via a first switch coupled to the first light therapy device, wherein the first light therapy device is placed in the lead mode via the first switch; and selecting the follow mode via a second switch coupled to the second light therapy device, wherein the second light therapy device is placed in the follow mode via the second switch.
Claim 11
The method of claim 1, further comprising indicating, via a first pair of indication lights on the first light therapy device, whether at least one of red light and near infrared light is being emitted from at least the portion of the first plurality of lights.
Claim 16
The method of claim 1, wherein communicatively coupling the first light therapy device directly to the second light therapy device comprises coupling the first light therapy device and the second light therapy device via a wired connection.
Claim 17
The method of claim 16, wherein coupling the first light therapy device and the second light therapy device via the wired connection comprises: inserting a first end of a communication cable into a first communication port on the first light therapy device; and inserting a second end of the communication cable into a second communication port on the second light therapy device.
Claim 19
The method of claim 1, further comprising: providing a third light therapy device comprising a third housing and a third plurality of lights configured to emit at least one of red light and near infrared light; providing a fourth light therapy device comprising a fourth housing and a fourth plurality of lights configured to emit at least one of red light and near infrared light; communicatively coupling each of the third light therapy device and the fourth light therapy device directly to at least one of the first light therapy device and the second light therapy device; and

emitting at least one of red light and near infrared light from at least a portion of the third plurality of lights and at least a portion of the fourth plurality of lights.