**IN THE UNITED STATES DISTRICT COURT**
**FOR THE EASTERN DISTRICT OF TEXAS**
**TYLER DIVISION**

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| **MASS ENGINEERED DESIGN, INC.** | § | |
| | § | **CIVIL ACTION NO. 6:14CV411** |
| | § | **LEAD CASE** |
| **vs.** | § | CONSOLIDATED WITH 6:14CV414 |
| | § | |
| | § | |
| **SPACECO BUSINESS SOLUTIONS, INC., *et al.*** | § | |
| | § | |
| | § | |

## MEMORANDUM OPINION AND ORDER

Plaintiff Mass Engineered Design, Inc. ("Mass") alleges infringement of U.S. Patent Nos. RE36,978 (the " '978 patent"), 8,102,331 (the " '331 patent"), and 8,462,103 (the " '103 patent") by Defendants SpaceCo Business Solutions, Inc. ("SpaceCo") and Planar Systems, Inc. ("Planar"). The Court consolidated the above-styled case with Civil Action No. 6:14-cv-414 for pretrial issues only, with the exception of venue. This Memorandum Opinion construes the disputed claim terms in the '978 patent, the '331 patent and the '103 patent.

## BACKGROUND

The patents in suit involve support systems for electronic displays. The patents share a common inventor, Jerry Moscovitch. Plaintiff alleges that SpaceCo infringes the '978 patent and the '103 patent. Plaintiff alleges that Planar infringes the '978 patent and the '331 patent.

The '978 patent was previously subject to claim construction in two different cases—*Mass Engineered Design, Inc., et al. v. Ergotron, Inc., et al.*, Civil Action No. 2:06-cv-272 (E.D.Tex. Mar. 13, 2008) (referred to as "*Ergotron*") and *Humanscale Corp. v. Mass Engineered Design, et. al.*, Civil Action No. 1:13-cv-535 (E.D.VA. Jan. 10, 2014). SpaceCo filed a petition

to institute an *inter partes* review of claims 16–37 of the '978 Patent. The Patent Trial and Appeal Board denied the petition on May 14, 2015.

**APPLICABLE LAW**

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent's intrinsic evidence to define the patented invention's scope. *Id.* at 1313–1314; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Other claims, asserted and un-asserted, can provide additional instruction because "terms are normally used consistently throughout the patent." *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), aff'd, 517 U.S. 370, 116 S.Ct. 1384, 134 Led.2d 577 (1996)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to

the meaning of a disputed term.'" *Id.* (quoting *Vitronics Corp.v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex. Inc. v.Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning that it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. For example, "[a] claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct." *Globetrotter Software, Inc. v. Elam Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *see also Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent."). The well-

established doctrine of prosecution disclaimer, "preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). The prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002); *see also Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 994 (Fed. Cir. 2003) ("The disclaimer . . . must be effected with 'reasonable clarity and deliberateness.'") (citations omitted)). "Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover." *Spectrum Int'l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). "As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution." *Omega Eng'g, Inc.*, 334 F.3d at 1324.

Although, "less significant than the intrinsic record in determining the legally operative meaning of claim language," the Court may rely on extrinsic evidence to "shed useful light on the relevant art." *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful." *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

In this case, Defendants contend that several claim limitations must be construed as "means-plus-functions" limitations. "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure . . . in support thereof, and such claim shall be construed to cover the corresponding structure . . . described in the specification and equivalents thereof." 35 U.S.C. § 112(f).[1] When a claim uses the term "means" to describe a limitation, a rebuttable presumption inheres that the inventor used the term to invoke § 112(f). *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (en banc); *Biomedino, LLC v. Waters Technologies Corp*., 490 F.3d 946, 950 (Fed. Cir. 2007). "This presumption can be rebutted when the claim, in addition to the functional language, recites structure sufficient to perform the claimed function in its entirety." *Biomedino*, 490 F.3d at 950 (citing *Altiris, Inc. v. Symantec Corp*., 318 F.3d 1363, 1375 (Fed. Cir. 2003)). By contrast, when a claim term does not use "means," the term is presumptively not subject to § 112(f). *Williamson*, 792 F.3d at 1348–49 (holding that a presumption exists if the word "means" is not used but overturning the prior standard that the presumption is "strong"); *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002); *MIT v. Abacus Software*, 462 F.3d 1344, 1353 (Fed. Cir. 2006). "The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Williamson*, 792 F.3d at 1349. Thus, "[w]hen a claim term lacks the word 'means,' the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.' " *Id*. (citing *Watts v. XL Sys., Inc*., 232 F.3d 877, 880 (Fed. Cir. 2000). "Generic terms such as 'mechansim,' 'element,' 'device' and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a

[1] Formerly 35 U.S.C. § 112 ¶ 6.

manner that is tantamount to using the word 'means' because they 'typically do not connote sufficiently definite structure' and therefore may invoke § 112, para. 6." *Id*. at 1350 (citing *Mass. Inst. of Tech. & Elecs. for Imaging, Inc. v. Abacus Software*, 462 F.3d 1344, 1354 (Fed. Cir. 2006)).

Once the court has concluded that the claim limitation is a means-plus-function limitation, the first step in construing a means-plus-function limitation is to identify the recited function. *See Micro Chem., Inc. v. Great Plains Chem. Co*., 194 F.3d 1250, 1258 (Fed. Cir. 1999). The second step in the analysis is to identify in the specification the structure corresponding to the recited function. *Id*. The "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed. Cir. 2003), citing *B. Braun v. Abbott Labs*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). The patentee must clearly link or associate structure with the claimed function as part of the quid pro quo for allowing the patentee to express the claim in terms of function pursuant to § 112(f). *Id*. at 1211; *see also Budde v. Harley-Davidson, Inc*., 250 F.3d 1369, 1377 (Fed. Cir. 2001). The "price that must be paid" for use of means-plus-function claim language is the limitation of the claim to the means specified in the written description and equivalents thereof. *See O.I. Corp. v. Tekmar Co*., 115 F.3d 1576, 1583 (Fed. Cir. 1997). "If the specification does not contain an adequate disclosure of the structure that corresponds to the claimed function, the patentee will have 'failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112,' which renders the claim invalid for indefiniteness." *Blackboard, Inc. v. Desire2Learn, Inc*., 574 F.3d 1371, 1382 (Fed. Cir. 2009), quoting *In re Donaldson Co*., 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en

banc). It is important to determine whether one of skill in the art would understand the specification itself to disclose the structure, not simply whether that person would be capable of implementing the structure. See *Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1382 (Fed. Cir. 1999); *Biomedino*, 490 F.3d at 953. Fundamentally, it is improper to look to the knowledge of one skilled in the art separate and apart from the disclosure of the patent. *See Medical Instrumentation*, 344 F.3d at 1211–12. "[A] challenge to a claim containing a means-plus-function limitation as lacking structural support requires a finding, by clear and convincing evidence, that the specification lacks disclosure of structure sufficient to be understood by one skilled in the art as being adequate to perform the recited function." *Budde*, 250 F.3d at 1376–77.

## DISCUSSION

### I. Agreed Terms

The parties have agreed to the construction of four terms. The first two terms are in the '331 patent and are not asserted against SpaceCo. The agreed construction of the last two terms is consistent with the Court's prior construction in *Ergotron*. The parties agree to the construction of the following terms:

| Term | Asserted Claim(s) | Agreed Construction |
|---|---|---|
| "plane asymmetry" | '331 patent, claim 11 | plane of symmetry |
| "oldie arm" | '331 patent, claim 5 | of the arm |

| | | |
|---|---|---|
| mounting means for mounting the displays to the arm assembly | '978 patent, claims 16, 18 | Construed under 35 U.S.C. § 112(6)<br><br>Function: mounting the displays to the arm assembly<br><br>Structure: Same as means for adjusting, i.e., ball 56, shaft 58, socket 60, hole 72, tabs 80, 82, rear of the display 16, plus equivalents (Figures 8 and 9)<br>OR<br>ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, screws 188, plug 194, socket 198 (or 202 or 204), bolt 200, rear of the display 152, plus equivalents (Figure 20). |
| support means for supporting the arm assembly from the base member | '978 patent, claim 16 | Construed under 35 U.S.C. § 112(6)<br><br>Function: supporting the arm assembly from the base member<br><br>Structure: upright 20, circular recess 34 in upright 20, washer 36, and bolt 38, plus equivalents (Figure 7)<br>OR<br>upright 158, socket 206 in upright 158, plug 208, and bolt 210, plus equivalents (Figure 19) |

## II. Disputed Terms

### a. "arm"/"arm assembly"/"support arm" ('978 patent, claims 16–18, 20–23, 25–28, 31–33, 35–38; '103 patent, claim 3; '331 patent, claims 1, 5–6, 8–12, 14–18)

| Term | Plaintiffs' Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| arm/arm assembly/support arm | a structure having one or more constituent parts connected to and projecting from the support means ('978 patent) or column ('331 or '103 patents) | '978 patent:<br>a structure having one or more constituent parts connected to and projecting from the support means<br><br>'103 patent:<br>a structure having one or more constituent parts connected to and projecting from the column |

In the briefing, the parties approach the construction of "arm," "arm assembly" and "support arm" together. With regard to the '978 patent and the '103 patent, the parties are in agreement as to the terminology applicable to "arm" and "arm assembly," but disagree as to how it should be presented to the jury. Defendants argue that the constructions should be presented separately for each patent. Plaintiff asserts that the construction for each patent should be combined, with reference to the applicable patent for "support means" or "column." In the Joint Final Claim Chart, Defendants refers to "support means" for the '103 patent, but they refer to "column" in their brief. The reference to "support means" in the chart appears to be in error because that term does not appear in the '103 patent and Defendants properly reference "column" in the briefing.

As to the '331 patent, Plaintiff proposes that the term should be construed the same as the '103 patent. Defendants do not refer to the '331 patent in the briefing on these terms and they do not include a separate construction in the Joint Final Claim Chart. Independent claim 1 of the '331 patent describes "arm" as "a single piece support arm," which provides the antecedent basis to use "support arm" elsewhere in that claim and in the dependent claims. At the hearing, Defendants focused their argument on the construction of "single piece support arm." The Court

addresses the construction of a "single piece support arm that extends on either side of the support column" below in paragraph "i."

The Court construes "arm," "arm assembly," and "support arm" to mean "a structure having one or more constituent parts connected to and projecting from the support means ('978 patent) or column ('103 patent) or support column ('331 patent claims 9–12 and 14).

**b. "an arm assembly having an arm that extends from the column" ('103 patent, claims 1, 3 and 4)**

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| an arm assembly having an arm that extends from the column | See above re arm assembly. Otherwise, plain meaning and needs no construction. | an arm assembly that has an arm that is capable of increasing or expanding in length when projecting from the column |

**c. "arm assembly is extendable from a retracted configuration to an extended configuration" ('103 patent, claim 1)**

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| arm assembly is extendable from a retracted configuration to an extended configuration | See above re arm assembly. Otherwise, plain meaning and needs no construction. | capable of telescoping outwardly from a surrounding channel |

The parties addressed the second and third terms together at the hearing. Infringement of the '103 patent is only asserted against SpaceCo. Plaintiff argues that "extends" does not require the arm to be extendable with the capability of increasing or expanding, as asserted by SpaceCo. Plaintiff asserts that SpaceCo's construction improperly imports a telescoping function from a single embodiment. Plaintiff points to multiple places in the specification where the term

"extends" or "extending" is used for structures that are not capable of increasing or expanding in length. *See* '103 patent Col.3:39–41 (Fig. 20 showing a display mounted on an arm "extending" from the computer); '103 patent Col. 9:39–41 (neck 36 "extends" from junction block 38); '103 patent Col. 18:54–57 (rollers 904 "extend" beyond the outer upper surface of 902a of the neck); '103 patent Col. 18:59–61 (center support member 910 is formed of a tubular construction and includes a projecting lip portion 912a extending from a lower wall 912); and '103 patent Col. 19:10–11 (neck portion 924 having a pair of longitudinally "extending" channels 926).

SpaceCo stated at the hearing that the proposed construction referenced in the briefing and the Joint Claim Construction Chart stating, "an arm assembly that has an arm that is capable of increasing or expanding in length when projecting from the column" is an error. The correct proposed construction is "capable of telescoping outwarding from a surrounding channel," just as it is proposed with the third term. SpaceCo argues that the patentee also includes language in the specification equating "extended" with "telescoped." *See* '103 patent Col. 14:38–42 (referring to Figs. 45–47, "the lower support arm 186 comprises a tubular construction and the upper support arm 188 comprises a neck portion 194 which enables the upper support arm 188 to be extended (i.e., telescoped) relative to the lower support arm 186."). SpaceCo asserts that the use of "i.e." is definitional such that the patentee defined the term "extended" in the specification to mean "telescoped." In addition, SpaceCo argues that the applicant showed an intent to limit the claims to a single embodiment by stating in a May 15, 2009 Response to Office Action that "[s]upport for these amendments can be found in Figures 44–49 and the portion of the specification describing these figures."[2]

Patentees show "intent to deviate from the ordinary and accustomed meaning of a claim term by redefining the term or by characterizing the invention in the intrinsic scope." *Teleflex*,

[2] The May 15, 2009 Response to Office Action can be found in Plaintiff's Amended Reply Brief, ECF 85-3, Exhibit 13.

299 F.3d at 1327. Regardless of whether there is one instance in the specification where the term "extended" indicates a telescoping function, the multiple references to "extends" with no telescoping function or movement shows that the patentee did not consistently or clearly use the term "extend" in a manner that is more or less expansive than the term's ordinary meaning. Similarly, the specification and patent history do not show that the patentee defined the term to require telescoping. Directly following the language quoted by SpaceCo in the May 15, 2009 Response to Office Action, the applicant states, "[s]upport for these amendments can also be found in other parts of the application."[3] This language does not show an intent to limit the claim to the aspect shown in Figures 44–49. SpaceCo's reference to one embodiment in the specification is not sufficient to redefine the term. *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Here, there is no lexicography or disavowal of the term's ordinary meaning. Having rejected SpaceCo's telescoping limitation and construing "arm assembly" above, the disputed terms need no further construction.

**d. "means for adjusting the angular orientation of each of the displays relative to the arm assembly to thereby permit said displays to be angled toward each other to a desired degree" ('978 patent, claims 16–18, 25, 27–28, 35, and 37–38)**

[3] Plaintiff's Amended Reply Brief, ECF 85-3, Exhibit 13.

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| "means for adjusting the angular orientation of each of the displays relative to the arm assembly to thereby permit said displays to be angled toward each other to a desired degree" | Construed under 35 U.S.C. § 112(f)<br><br>Function: adjusting the angular orientation of each of the displays relative to the arm assembly to thereby permit said displays to be angled toward each other to a desired degree<br><br>Structure:<br>ball 56, shaft 58, socket 60, hole 72, tabs 80, 82, rear of the display 16, plus equivalents (Figures 8 and 9) OR<br><br>ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, screws 188, plus 194, socket 198 (or 202 or 204), bolt 200, rear of the display 152, plus equivalents (Figure 20) | Governed by 35 U.S.C. §112(6)<br><br>Function: adjusting the angular orientation of each of the displays relative to the arm assembly<br><br>Structure: the structure corresponding to the mounting means to which slots 62 and 64 (Figs 8 and 9) or 178 (Fig 20) and projections 66 and 68 (Figs 8 and 9) or 180 (Fig 20) have been added |

The parties agree that the term is a means-plus-function limitation governed by 35 U.S.C. § 112(f). They also agree that the claimed function includes "adjusting angular orientation of each of the displays relative to the arm assembly," but Plaintiff proposes that the function also includes "to thereby permit said displays to be angled toward each other to a desired degree." Clauses using "whereby" or "thereby" after the "means for" clause do not add to the substance of the claim and are not part of the function if it "merely states the result of the limitations in the claim." *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d 1308, 1319 (Fed. Cir. 2003) (citing *Tex. Instruments, Inc. v. United States Int'l Trade Comm'n*, 988 F.2d 1165, 1172 (Fed. Cir. 1993)). Here, the phrase "to thereby permit said displays to be angled toward each

other to a desire degree" states the intended result of the limitations in the claim. The function is the language after the "means for" clause and before the "thereby" clause—"adjusting the angular orientation of each of the displays relative to the arm assembly."

Having identified the function, the Court turns to the structure corresponding to the function. *Micro Chemical, Inc. v. Great Plains Chemical Co., Inc.*, 194 F.3d at 1258. Structural features must actually perform the recited function to constitute corresponding structure and serve as a claim limitation. *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370 (Fed. Cir. 2001) (citing *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, 145 F.3d 1303, 1308–09 (Fed. Cir. 1998)).

Plaintiff asserts that "means for adjusting" is related to "mounting means," for which the parties agreed to the following structure:

> ball 56, shaft 58, socket 60, hole 72, tabs 80, 82, rear of the display 16, plus equivalents (Figures 8 and 9) OR
>
> ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, screws 188, plug 194, socket 198 (or 202 or 204), bolt 200, rear of the display 152, plus equivalents (Figure 20).

Defendants, however, seek to add slots and projections to the structure so that the structure is: the structure corresponding to the mounting means which slots 62 and 64 (Figs 8 and 9) or 178 (Fig 20) and projections 66 and 68 (Figs 8 and 9) or 180 (Fig 20) have been added. Defendants argue that projections and slots are used to limit the tilting of the display about two mutually perpendicular axes.

The Court addressed and rejected the inclusion of the very same slots and projections structures in *Ergotron* when construing "mounting means for mounting the displays to the arm assembly." The Court concluded that, "while the preferred embodiments include the projections and slots, the claim language and specification make clear that the projections and slots are

preferred structure and not necessary." *Mass Engineered Design, Inc., et al. v. Ergotron, Inc., et al.*, Civil Action No. 2:06-cv-272, slip op. at *11 (E.D.Tex. Mar. 13, 2008). The Court further explained:

> For one embodiment, the specification states "the ball joint 126 is preferably configured with pins and slots like the ball joint described above [Figures 8 and 9} to provide limiting tilting of the display 106, but such configuration has not been illustrated in FIG. 13." '978 patent, Col. 5:57–60. The specification makes clear that the projections and slots are preferable, which denotes they are not required. '978 patent, Col. 5:57–58. The specification also teaches that these components are used to limit tilting of the display but makes no reference to them being used to mount the displays. *Id*. at Col. 5:58–60. Importing "structural limitations from the written description that are unnecessary to perform the claimed function" is improper. *Wenger*, 239 F.3d at 1233. The specification does not associate the projections and slots with performing the mounting means function. Accordingly, the projections and slots are not necessary structure.

*Id*. at *11–12.

The reasoning in *Ergotron* is equally applicable here. The plain reading of the function does not require the limit on the range of motion that is asserted by Defendants. Defendants are seeking to add structure to accomplish a different function—a "limit" function. The slots and projections can be removed and the ball joints still perform the function of adjusting the angular orientation. The projections and slots are not necessary structure.[4]

The Court construes the function as "adjusting the angular orientation of each of the displays relative to the arm assembly." The necessary structure is either "ball 56, shaft 58, socket 60, hole 72, tabs 80, 82, rear of the display 16, plus equivalents (Figures 8 and 9) OR ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, screws 188, plug 194, socket 198 (or 202 or 204), bolt 200, rear of the display 152, plus equivalents (Figure 20)."

**e. "the mounting means permits the one display to assume a first angular position and a second angular position" ('978 patent, claims 18 and 27)**

[4] This conclusion would be reached under either of the proposed functions.

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| "the mounting means permits the one display to assume a first angular position and a second angular position" | See above re mounting means. Otherwise, plain meaning and needs no construction. | Governed by 35 U.S.C. § 112(6)<br><br>Function: permit one display to assume a first angular position and a second angular position<br><br>Structure: A shaft 58, socket 76, two stops 84 and 90, tabs 80 and 82 (the tabs and stops limiting the rotation to 90 degrees) |

As set out above, the parties agreed to the construction of "mounting means for mounting the displays to the arm assembly" as used in claims 16 and 18. Defendant argues that this additional language in dependent claims 18 and 27—"permits the one display to assume a first angular position and a second angular position"—is an additional means plus function term with "stops" included in the structure.

The term is not an additional means plus function limitation. The additional language is not directed to the recited function of the mounting means. Even if the Court determined that there is an additional means plus function limitation, applying the same analysis above regarding slots and projections, the tabs and stops are not necessary structure. Defendants are attempting to add a limiting function into the claim to limit the positions to particular predefined angles. Notably, the claim language states that the mounting means "permits" the first and second angular positions. It does not denote that the non-claimed limiting function of the tabs and stops is required.

Defendants also argue that during reexamination the patentee stated that the first angular orientation corresponds to the displays being oriented horizontally and the second angular orientation corresponds to rotating the displays 90 degrees so they are oriented vertically. The

reference relied upon by Defendants is found in a section of the October 29, 2010 Response to Office Action.[5] Immediately preceding the language relied upon by Defendants, however, the document states "[e]xamples of specific portions of the patent providing support for the new claims follow."[6] In this context, the statements by the patentee were merely to provide examples for new claims and were not an attempt to distinguish prior art or to limit the claims to those embodiments.

**f. "[the mounting means comprises] connector means for connecting one of the displays to the arm at positions spaced along the arm, whereby the spacing between the displays can be adjusted" ('978 patent, claims 25 and 35)**

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| "[the mounting means comprises] connector means for connecting one of the displays to the arm at positions spaced along the arm, whereby the spacing between the displays can be adjusted" | Construed under 35 U.S.C. § 112(6)<br><br>Function: connecting one of the displays to the arm at positions spaced along the arm, whereby the spacing between the displays can be adjusted<br><br>Structure: Same as for mounting means, but not including socket 198, and further including both sockets 202 and 204 (versus mounting means having either socket 202 or 204) plus equivalents (Figure 20) | Governed by 35 U.S.C. § 112(6)<br><br>Function: connecting one of the displays to the arm at predetermined, fixed positions spaced along the arm<br><br>Structure: Socket 202, socket 204, connector 166, bolt 200, plus equivalents |

The parties agree that the term should be construed pursuant to 35 U.S.C. § 112(f). At the hearing, Defendants agreed to Plaintiff's proposed function, with the exception of the language "whereby the spacing between the displays can be adjusted." As set out above, clauses

[5] *See* Defendants' Amended Responsive Claim Construction Brief, ECF 81, Exhibit 1, p. 23.
[6] *Id*.

using "whereby" or "thereby" after the "means for" clause do not add to the substance of the claim and are not part of the function if it "merely states the result of the limitations in the claim." *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F.3d at 131. Here, the phrase "whereby the spacing between the displays can be adjusted" states the intended result of the limitations in the claim. The function is the language after the "means for" clause and before the "whereby" clause—"connecting one of the displays to the arm at positions spaced along the arm."

Defendants' proposed construction adds connector 166 to the structure. Defendants argue that connector 166 is a necessary part of the overall structure because connector 166 is necessary to connect the display to the arm. *See* '978 patent Col. 6:58–59. Plaintiff asserts that Defendants are again seeking to add in slots and projections. Including connector 166 could be implied to require all sub-components of the connector 166, including the projections 180 and slots 178. As determined above, the projections and slots are not necessary structure. Defendants are attempting to add structure that goes beyond the claimed function.

The Court construes the function as "connecting one of the displays to the arm at positions spaced along the arm." The necessary structure is the same as for mounting means, but not including socket 198 and further including both sockets 202 and 204.

**g. "positioning means for positioning displays, the positioning means comprising" ('978 patent, claims 16–18, 24, 26–28, 34 and 36–38)**

| Term | Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|---|
| "positioning means for positioning displays, the positioning means comprising" | apparatus used to position displays | Governed by 35 U.S.C. § 112(6)<br><br>Function: positioning the pair of displays<br><br>Structure: the structure of this element is limited to the specific structures disclosed in the patent for the following sub-elements, some of which are also governed by 112(6) as noted below:<br><br>An arm assembly for supporting the displays<br><br>Support means for supporting the arm assembly (112(6)—see structure identified below)<br><br>Mounting means for mounting the displays to the arm assembly (112(6)—see structure identified below), the mounting means comprising means for adjusting the angular orientation of each of the displays relative to the arm assembly to permit said displays to be angled toward each other to a desired degree (112(6)—see structure identified below) |

In the *Ergotron* case, the Court construed "positioning means for positioning displays" to mean "apparatus used to position the displays." Defendants argue that this is a means plus function term. Defendants assert that during reexamination of the '978 patent after the Court issued the claim construction opinion in *Ergotron*, the applicant argued that "positioning means" in the '978 patent is distinguishable from the Reh prior art reference because the '978 patent

allows monitors to be moved "cooperatively," while Reh allows monitors to be moved "independently and uncooperatively."[7] In addition, Defendants assert that the frequent use of means-plus-function limitations in the patent evidences the patentee's intent to invoke 35 U.S.C. § 112(f).

As set out above, a rebuttable presumption arises that the inventor sought to invoke § 112(f) when a claim uses the term "means" to describe a limitation. *Biomedino, LLC v. Waters Technologies Corp.*, 490 F.3d at 950. The presumption can be rebutted "by the recitation of the structure needed to perform the recited function." *TI Group Auto Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1135 (Fed. Cir. 2004). "[W]here a claim recites function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format." *Sage Prods. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427–28 (Fed. Cir. 1997). The Court's finding in *Ergotron* that there is sufficient structure is equally applicable here:

> The claim language recites sufficient structure. The claims states "positioning means for . . . comprising:" an arm assembly, "support means . . .," "mounting means . . .," and "means for adjusting . . ." '978 patent, Co. 11:10–12:2. Although the recited structure includes means-plus-function limitations, there is sufficient structure in the claim language such that Section 112, ¶ 6 does not apply. *British Tel. PLC v. Prodigy Commc'n Corp.*, 189 F.Supp.2d 101, 110 (S.D. NY 2002); *see also Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1359–60 (Fed. Cir. 2004) ("we have held that it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies the structures by their function"). Here, the structure is identified by both specific components (e.g. arm assembly) and functions (e.g. mounting means for mounting and supporting means for supporting). "The structure of the component parts is present—it is just found in a different part of the patent, in the specification, rather than in the claim language." *British Tel. PLC*, 189 F.Supp.2d at 110. Accordingly, the term is not a means-plus-function limitation.

[7] *See* Defendants' Amended Responsive Claim Construction Brief, ECF 81, p. 19–20.

*Mass Engineered Design, Inc., et al. v. Ergotron, Inc., et al.*, Civil Action No. 2:06-cv-272, slip op. at *6–7 (E.D.Tex. Mar. 13, 2008).[8] The term is not a means-plus-function limitation.

The prosecution history does not support Defendants' argument that Plaintiff cannot argue here that "positioning means" has the same definite physical structure as in the Reh prior art after arguing that they are different in reexamination. The portion of the Amendment/Remarks After Non-Final Office Action Submitted in Ex Parte Reexamination cited by Defendants refers only to the "support means" sub-element.[9] A prosecution disclaimer may apply where the applicant describes features of the prior art and distinguishes the claimed invention based on those features. *Eolas Techs., Inc. v. Microsoft Corp*., 399 F.3d 1325, 1337 (Fed. Cir. 2005). Here, however, the applicant did not direct his distinction with the prior art towards "positioning means."

The Court construes "positioning means for positioning displays, the positioning means comprising" to mean "apparatus used to position displays."

**h. "the positioning means allows positioning of the rear portion at a plurality of distances from the support means to minimize a spacing" ('978 patent, claims 18 and 27)**

[8] Defendants argued at the oral hearing that the Court's finding in *Ergotron* did not consider *Trimed v. Stryker Corp*., 514 F.3d 1256, 1260 (Fed. Cir. 2008) (noting that the presumption may be overcome if the claim provides the necessary structure without resort to the specification). Here, the surrounding claim language provides the necessary structure. The surrounding claim language at issue is different from that of *Trimed*. Here, the surrounding claim language includes other means plus function elements. That the other claim sub-elements require a means plus function analysis was not the focus of *Trimed* with regard to the reference to resorting to the specification.

[9] *See* Defendants' Amended Responsive Claim Construction Brief, ECF 81, Exhibit 1, p. 11–12.

| Term | Plaintiff's Proposed Construction | Defendant's Proposed Construction |
|---|---|---|
| "the positioning means allows positioning of the rear portion at a plurality of distances from the support means to minimize a spacing" | See above re positioning means and support means. Otherwise, plain meaning and needs no construction. | Governed by 35 U.S.C. § 112(6)<br><br>Function: positioning of the rear portion at a plurality of distances from the support means to minimize a spacing<br><br>Structure: Telescopic arm<br><br>or<br><br>socket 198 in arm 162, pair of sockets 202 and 204 axially spaced along arm 162 at an opposite end of the arm 162 from socket 198, plug 194 receivable by socket 198, and plug 166 receivable by socket 202 or 204 |

As with the prior term, Defendants argue that this is a means plus function term. The Court already determined that "positioning means" as used in the independent claim is not a means plus function limitation. For the same reasons, this term is not a means plus function limitation.

**i. "[support arm structure having] a single piece support arm that extends on either side of the support column" ('331 patent, claims 1 and 14); "[support arm structure having] a support arm that extends on either side of the support column" ('331 patent, claims 9 and 10)**

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| "[support arm structure having] a single piece arm that extends on either side of the support column;" "[support arm structure having] a support arm that extends on either side of the support column" | See above re arm. Otherwise, plain meaning and needs no construction. | one support arm, formed as a single piece, that extends on either side of the support column<br><br>alternatively,<br><br>an integral arm extending on both sides of the support column |

Defendants' proposed construction requires a support arm, "formed as a single piece." At the hearing, the parties agreed to Defendants' alternative construction—"an integral arm extending on both sides of the support column"— as to claim 1. As to claim 9, Plaintiff disputes whether it requires a single piece.

Defendants argue that the applicant disclaimed multiple piece support arms or multiple single piece support arms in the prosecution history. Specifically, the patentee sought to distinguish Leveridge which taught a system with two cantilevered arms.[10] The patentee additionally argued for the patentability of claim 1 (formerly claim 62) over Leveridge by stating that the claim "recites a support arm being formed as a single piece component."[11] Notably, this portion of the prosecution history relates to claim 1 and not claim 9. In addition, the "formed" limitation was removed from the claim before the patent issued. The prosecution history does not support limiting a "single piece support arm" to one that is "formed" as a single piece.

The claim recites "a support arm that extends on either side of the column." '331 patent Col. 5:28–29. The plain meaning of the claim is that the arm extends on both sides. It is

[10] *See* Defendants' Amended Responsive Claim Construction Brief, ECF 81, Exhibit 3, p. 10.
[11] *Id*. at Exhibit 4, p. 4.

construed to mean one arm extending on both sides; as opposed to one arm on one side and a different arm on the other side.

The Court construes the independent claim 1 term as "an integral arm extending on both sides of the support column." As to the independent claim 9 term, having construed "arm" above, the plain and ordinary meaning of the rest of the term applies.

**j. "base" ('103 patent, claims 1, 5, 11, and 14; '331 patent, claims 1, 3, 9, and 11)/"base member" ('978 patent, claims 1, 16, 17, 19–20, 25, 28–32, and 37–38)**

| Term | Plaintiff's Proposed Construction | Defendants' Proposed Construction |
|---|---|---|
| "base" | the lowermost portion of the system that supports the arm assembly above a work surface | The lowermost portion of the system that supports the arm assembly above a surface |

The parties disagree as to whether the construction includes "work" surface. In *Ergotron*, the Court construed "base member" as the "lowermost portion of the system that supports the arm assembly above a surface." Plaintiff argues here that the construction should be clarified to add "work" surface because that would be consistent with the intrinsic evidence. Specifically, Plaintiff points to a statement by the applicant in the prosecution history for the '978 patent that the "base" is "used to support the arm assembly above a work surface."[12] Defendants respond that Plaintiff tried to insert "work surface" into the claim in *Ergotron*, but the Court decided that the prosecution history did not reference where the base must rest.

The Court's analysis in *Ergotron* focused on whether the base "rests" on a surface, instead of whether the surface is a "work" surface. "Work" surface is not found in the specification for either the '978 patent or the '103 patent. The specification for the '978 patent

[12] *See* Plaintiff's Amended Opening Claim Construction Brief, ECF 74, Exhibit 11, p. 50.

refers to a "horizontal" surface in the Description of Preferred Embodiments, which is broader than a "work" surface. '978 patent, Col. 3:20–26. Similarly, in the '103 patent dependent claim 5 recites, "wherein the base is adapted to rest on a horizontal surface." '103 patent, Col. 26:13–15. The prosecution history statement by the applicant that is referred to by Plaintiff is not directed at distinguishing non-work surfaces and work surfaces. The doctrine of prosecution disclaimer is not applicable "where the alleged disavowal of claim scope is ambiguous." *Omega Engineering, Inc. v. Raytek Corp*., 334 F.3d 1314, 1323 (Fed. Cir. 2003).

The Court adopts Defendants' construction and construes "base" and "base member" as "the lowermost portion of the system that supports the arm assembly above a surface."

**CONCLUSION**

For the foregoing reasons, the Court hereby **ADOPTS** the claim constructions as set forth above. For ease of reference, the Court's claim interpretations are set forth in a table in Appendix A.

So ORDERED and SIGNED this 3rd day of March, 2016.

K. Nicole Mitchell

K. NICOLE MITCHELL
UNITED STATES MAGISTRATE JUDGE

# APPENDIX A

| Terms, Phrases, or Clauses | Court's Construction |
|---|---|
| "arm," "arm assembly," "support arm" | "a structure having one or more constituent parts connected to and projecting from the support means ('978 patent) or column ('103 patent) or support column ('331 patent claims 9–12 and 14)" |
| "an arm assembly having an arm that extends from the column" | See above re arm assembly, otherwise plain and ordinary meaning |
| "arm assembly is extendable from a retracted configuration to an extended configuration" | See above re arm assembly, otherwise plain and ordinary meaning |
| "means for adjusting the angular orientation of each of the displays relative to the arm assembly to thereby permit said displays to be angled toward each other to a desired degree" | Construed under 35 U.S.C. § 112(f)<br><br>Function: adjusting the angular orientation of each of the displays relative to the arm assembly<br><br>Structure:<br>ball 56, shaft 58, socket 60, hole 72, tabs 80, 82, rear of the display 16, plus equivalents (Figures 8 and 9) OR<br><br>ball 172, shaft 174, socket 170 with flat surface 190, shell 184 with flat 192, plate 182, screws 186, screws 188, plus 194, socket 198 (or 202 or 204), bolt 200, rear of the display 152, plus equivalents (Figure 20) |
| "the mounting means permits the one display to assume a first angular position and a second angular position" | See above re mounting means, otherwise plain and ordinary meaning |
| "[the mounting means comprises] connector | Construed under 35 U.S.C. § 112(f) |

| | |
|---|---|
| means for connecting one of the displays to the arm at positions spaced along the arm, whereby the spacing between the displays can be adjusted" | Function: connecting one of the displays to the arm at positions spaced along the arm<br><br>Structure:<br>same as for mounting means, but not including socket 198, and further including both sockets 202 and 204 plus equivalents (Figure 20) |
| "positioning means for positioning displays, the positioning means comprising" | "apparatus used to position displays" |
| "the positioning means allows positioning of the rear portion at a plurality of distances from the support means to minimize a spacing" | See above re positioning means and support means, otherwise plain and ordinary meaning |
| "[support arm structure having] a single piece support arm that extends on either side of the support column;" "[support arm structure having] a support arm that extends on either side of the support column" | As to claim 1: "an integral structure connected to and projecting from the support column in a manner that extends on either side of the support column."<br><br>As to claim 9: See above re arm, otherwise plain and ordinary meaning |
| "base" | "the lowermost portion of the system that supports the arm assembly above a surface" |