United States District Court,
S.D. California.

CIMCORE CORPORATION, a California corporation, Romer, Inc., a California corporation, and Homer Eaton, an individual,
Plaintiffs.
v.
FARO TECHNOLOGIES, INC., a Florida corporation,
Defendant.
Faro Technologies, Inc,
a Florida corporation Counterclaimant.
v.
Cimcore Corporation, a California corporation, Romer, Inc., a California corporation, and Homer Eaton, an individual,
Counterdefendants.

Civ. No. 03CV2355B (WMC)

Nov. 30, 2004.

Brenton R. Babcock, Philip Mark Nelson, Knobbe Martens Olson and Bear, Irvine, CA, for Plaintiffs and Counterdefendants.

Daniel Bruso, Steven M. Coyle, William J. Cass, Cantor Colburn, Bloomfield, Ct, Gerald L. McMahon, Richard A. Clegg, Seltzer Caplan McMahon Vitek, San Diego, CA, for Defendant and Counterclaimant.

CLAIM CONSTRUCTION ORDER FOR UNITED STATES PATENT NUMBER 5,829,148

RUDI M. BREWSTER**, District Judge.**

Pursuant to Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996), on November 23-24, 2004, the Court conducted a Markman hearing in the above-titled patent infringement action regarding construction of the disputed claim terms for U.S. Patent Number 5,829,148 ("the '148 patent"). Plaintiffs Cimcore Corporation, Romer, Inc., and Homer Eaton (collectively, "Cimcore") were represented by the law firm of Knobbe Martens Olson & Bear, LLP, and Defendant Faro Technologies ("Faro") was represented by the law firm Cantor Colburn LLP.

At the Markman hearing, the Court, with the assistance of the parties, analyzed claim terms in order to prepare jury instructions interpreting the pertinent claims at issue in the '148 patent. Additionally, the Court and the parties prepared a "case glossary" for terms found in the claims and the specification for the '148 patent considered to be technical in nature which a jury of laypersons might not understand clearly without specific definition.

After careful consideration of the parties' arguments and the applicable statutes and case law, the Court **HEREBY CONSTRUES** the claims in dispute in the '148 patent and **ISSUES** the relevant jury instructions as written in Exhibit A, attached hereto. Further, the Court **HEREBY DEFINES** all pertinent technical terms as written in Exhibit B, attached hereto.

IT IS SO ORDERED.

EXHIBIT A

UNITED STATES PATENT NUMBER 5.829,148-CLAIM CHART

VERBATIM CLAIM LANGUAGE	***COURT'S CLAIM CONSTRUCTION***
Claim 1	
An articulated spatial coordinate measuring arm which comprises:	An articulated spatial coordinate measuring arm [*an arm with a plurality of rigid transfer members connected end-to-end by a series of joint assemblies terminating in a probe used for measuring three-dimensional objects*] which comprises [*must include but not limited to*]:
a supporting base;	a supporting base [*a component on which the spatial coordinate measuring machine ("CMM") arm rests*];
a proximal transfer member having a proximal end and a distal end;	aproximal [*closest to the supporting base*] transfer member [*a portion of the articulated arm which carries electrical signals from one of its ends to the other*] having a proximal end [*nearest to the base*] and a distal end [*furthest from the base*];
an intermediate transfer member having a proximal end and distal end;	an intermediate transfer member [*another portion of the articulated arm in between the transfer member closest to the base and a transfer member furthest from the base*] having a proximal end and distal end;
a distal transfer member having a proximal end and a distal end;	a distal transfer member [*another portion of the articulated arm furthest from the base*] having a proximal end and a distal end;
a probe having a proximal end and a distal end	a probe [*a component at the distal end of the articulated arm that facilitates spatial measurement by interfacing with the object to be measured*] having a proximal end and a distal end
a first joint assembly swivelingly connecting said proximal end or said proximal member to said base;	a first joint assembly [*a component that contains at least one joint, and which connects an end of a transfer member to an end of another transfer member, or to an end of the probe, or to the base*] swivelingly connecting [*joining or uniting components, which may be accomplished by an intervening component that may share one or more parts with either or both of the components it connects, so as to permit one component to rotate about a longitudinal axis of the other component*] said proximal end of said proximal member to said base;
a second joint assembly swivelingly and hingedly connecting the distal end of said proximal member to the proximal end of said intermediate member;	a second joint assembly swivelingly and hingedly connecting [*joining or uniting components, which may be accomplished by an intervening component that may share one or more parts with either or both of the components it connects, so as to permit one component to rotate about an axis transverse to a longitudinal axis of the other component*] the distal end of said proximal member to the proximal end of said intermediate member;
a third joint assembly	a third joint assembly swivelingly and hingedly connecting the distal end of

swivelingly and hingedly connecting the distal end of said intermediate member to the proximal end of said distal member; and	said intermediate member to the proximal end of said distal member; and
a fourth joint assembly hingedly connecting the proximal end of said probe to the distal end of said distal member;	a fourth joint assembly hingedly connecting the proximal end of said probe to the distal end of said distal member;
wherein at least one of said first, second and third joint assemblies has at least one degree of freedom capable of sweeping through an unlimited arc;	wherein at least one of said first, second and third joint assemblies has at least one degree of freedom [*rotation about an axis*] capable of sweeping through an unlimited arc [*able to rotate infinitely along a circular curved path*];
wherein said at least one of said first, second and third joint assemblies comprises at least one multi-contact slip-ring sub-assembly for transmitting electrical signals there through; and	wherein said at least one of said first, second and third joint assemblies comprises at least one multi-contact slip-ring sub assembly [*an electrically conductive part (or series of parts) having multiple points of physical contact (direct or through an intermediary conductive material) with a corresponding conductive part (or series of parts) to provide continuous electrical connection and/or signal transference, even when the parts rotate with respect to each other*] for transmitting electrical signals therethrough; and
wherein each of said first, second and third joint assemblies has an unlimited range of swiveling motion.	wherein each of said first, second and third joint assemblies has an unlimited range of swiveling motion [*capable of infinite rotation about a longitudinal axis of a component*].

Claim 2	
The arm of claim 1, wherein said electrical signals comprise data reflecting the orientation statuses of joint assemblies more distally located from the base than said at least one of said assemblies.	The arm of claim 1, wherein said electrical signals comprise data reflecting the orientation statuses of joint assemblies [*degree of angular rotation of the joint or joints contained in the joint assembly*] more distally located from the base than said at least one of said assemblies.

Claim 3	
An articulated spatial coordinate measuring arm which comprises:	An articulated spatial coordinate measuring arm [*an arm with a plurality of rigid transfer members connected end-to-end by a series of joint assemblies terminating in a probe used for measuring three-dimensional objects*] which comprises [*must include but not limited to*]:
a supporting base;	a supporting base [*a component on which the spatial coordinate measuring machine ("CMM") arm rests*];
a proximal transfer member having a proximal end and a distal end;	a proximal [*closest to the supporting base*] transfer member [*a portion of the articulated arm which carries electrical signals from one of its ends to the other*] having a proximal end [*nearest to the base*] and a distal end [*furthest from the base*];
an intermediate transfer	an intermediate transfer member [*another portion of the articulated arm in*

member having a proximal end and distal end;	*between the transfer member closest to the base and a transfer member furthest from the base*] having a proximal end and distal end;
a distal transfer member having a proximal end and a distal end;	a distal transfer member [*another portion of the articulated arm furthest from the base*] having a proximal end and a distal end;
a probe having a proximal end and a distal end	a probe [*a component at the distal end of the articulated arm that facilitates spatial measurement by interfacing with the object to be measured*] having a proximal end and a distal end
a first joint assembly swivelingly connecting said proximal end of said proximal member to said base;	a first joint assembly [*a component that contains at least one joint, and which connects an end of a transfer member to an end of another transfer member, or to an end of the probe, or to the base*] swivelingly connecting [*joining or uniting components, which may be accomplished by an intervening component that may share one or more parts with either or both of the components it connects, so as to permit one component to rotate about a longitudinal axis of the other component*] said proximal end of said proximal member to said base;
a second joint assembly swivelingly and hingedly connecting the distal end of said proximal member to the proximal end of said intermediate member;	a second joint assembly swivelingly and hingedly connecting connecting [*joining or uniting components, which may be accomplished by an intervening component that may share one or more parts with either or both of the components it connects, so as to permit one component to rotate about an axis transverse to a longitudinal axis of the other component*] the distal end of said proximal member to the proximal end of said intermediate member;
a third joint assembly swivelingly and hingedly connecting the distal end of said intermediate member to the proximal end of said distal member; and	a third joint assembly swivelingly and hingedly connecting the distal end of said intermediate member to the proximal end of said distal member; and
a fourth joint assembly hingedly connecting the proximal end of said probe to the distal end of said distal member;	a fourth joint assembly hingedly connecting the proximal end of said probe to the distal end of said distal member;
wherein at least one of said first, second and third joint assemblies has a least one degree of freedom capable of sweeping through an unlimited arc; and	wherein at least one of said first, second and third joint assemblies has at least one degree of freedom [*rotation about an axis*] capable of sweeping through an unlimited arc [*able to rotate infinitely along a circular curved path*];
wherein each of said members comprises: an inner tubular shaft having a first end and an opposite second end;	wherein each of said members comprises: an inner tubular shaft [*a rotating cylindrical part enclosed within an outer tubular sheath*] having a first end and an opposite second end;

said first end being fixedly attached to a first one of said joint assemblies at a first end of said member;	said first end being fixedly attached to a first one of said joint assemblies at a first end of said member;
an outer tubular sheath co-axially surrounding said inner tubular shaft, and said sheath having a first extremity and an opposite second extremity;	an outer tubular sheath [*a cylindrical part enclosing or covering an inner tubular shaft*] co-axially surrounding said inner tubular shaft, and said sheath having a first extremity [*end*] and an opposite second extremity;
said second extremity being fixedly attached to a second one of said joint assemblies at a second end of said member opposite said first end;	said second extremity being fixedly attached to a second one of said joint assemblies at a second end of said member opposite said first end;
a first bearing rotatively mounting said first end of said shaft proximal to said first extremity of said sheath; and	a first bearing [*a supporting part or collection of parts that facilitates rotation*] rotatively mounting [*mounting the end so that it may rotate*] said first end of said shaft proximal to said first extremity of said sheath; and
a second bearing rotatively mounting said second end of said shaft proximal to said second extremity of said sheath.	a second bearing rotatively mounting said second end of said shaft proximal to said second extremity of said sheath.

EXHIBIT B

GLOSSARY OF TERMS

TERM	***DEFINITION***
Articulated spatial coordinate measuring arm	an arm with a plurality of rigid transfer members connected end-to-end by a series of joint assemblies terminating in a probe used for measuring three-dimensional objects
Bearing	a supporting part or collection of parts that facilitates rotation
Capable of sweeping through an unlimited arc	able to rotate infinitely along a circular curved path

Comprises	must include but not limited to
Degree of freedom	rotation about an axis
Distal	furthest from the base
Distal transfer member	another portion of the articulated arm furthest from the base
Extremity	end
Hingedly connecting	joining or uniting components, which may be accomplished by an intervening component that may share one or more parts with either or both of the components it connects, so as to permit one component to rotate about an axis transverse to a longitudinal axis of the other component
Inner tubular shaft	a rotating cylindrical part enclosed within an outer tubular sheath
Intermediate transfer member	another portion of the articulated arm in between the transfer member closest to the base and a transfer member furthest from the base
Joint assembly	a component that contains at least one joint, and which connects an end of a transfer member to an end of another transfer member, or to an end of the probe, or to the base
Multi-contact slip-ring sub-assembly	an electrically conductive part (or series of parts) having multiple points of physical contact (direct or through an intermediary conductive material) with a corresponding conductive part (or series of parts) to provide continuous electrical connection and/or signal transference, even when the parts rotate with respect to each other
Orientation status of joint assemblies	degree of angular rotation of the joint or joints contained in the joint assembly
Outer tubular sheath	a cylindrical part enclosing or covering an inner tubular shaft
Probe	a component at the distal end of the articulated arm that facilitates spatial measurement by interfacing with the object to be measured
Proximal	closest/nearest to the supporting base
Rotatively mounting	mounting the end so that it may rotate
Supporting base	a component on which the spatial coordinate measuring machine ("CMM") arm rests
Swivelingly connecting	joining or uniting components, which may be accomplished by an intervening component that may share one or more parts with either or both of the components it connects, so as to permit one component to rotate about a longitudinal axis of the other component
Transfer member	a portion of the articulated arm which carries electrical signals from one of its ends to the other
Unlimited range of swiveling	capable of infinite rotation about a longitudinal axis of a component

motion

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