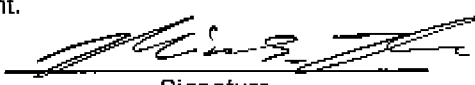


Docket No. 34077/US/2

FORM PTO 1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94)	RECORDATION COVER SHEET PATENTS ONLY	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.		
1. Name(s) of conveying party(ies): Matthew P. Dugas Theodore A. Schwartz Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies) Name: <u>Advanced Research Corporation</u> Internal Address: _____ Street Address: <u>4459 White Bear Parkway</u> City: <u>White Bear</u> State: <u>Minnesota</u> ZIP: <u>55110</u> Country: <u>USA</u> Additional name(s) & address(es) attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____ Execution Date: <u>April 27, 2005</u>		
4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: _____		
A. Patent Application No.(s) <u>11/060,627</u>	B. Patent No.(s) _____	
Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>Min (Amy) S. Xu</u> Internal Address: <u>Customer Number 25763</u> <u>Dorsey & Whitney LLP</u> <u>Intellectual Property Department</u> Street Address: <u>Suite 1500, 50 South Sixth Street</u> City: <u>Minneapolis</u> State: <u>MN</u> ZIP: <u>55402-1498</u>	6. Total Number of applications and patents involved: 7. Total fee (37 CFR 3.41) . . . x \$40. <u>\$40.00</u> <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account 8. Deposit Account number: <u>04-1420</u> (Attach duplicate copy of this page if paying by deposit account)	
DO NOT USE THIS SPACE		
9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original document. <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> <u>Min (Amy) S. Xu</u> Name of Person Signing Reg. No. 39,536 </div> <div style="text-align: center;">  Signature </div> <div style="text-align: center;"> <u>5-16-2005</u> Date </div> </div>		
Total number of pages including cover sheet, attachments, and document: _____		
Mail documents to be recorded with required cover sheet information to: <div style="display: flex; justify-content: space-between;"> <div> Mail Stop Assignment Recordation Services Director of the US Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 </div> <div style="text-align: right;"> FACSIMILE NO.: 703.306.5995 </div> </div>		

CH \$40.00 041420 11060627

ASSIGNMENT [Entity]	Attorney Docket No.: 34077/US/2	Page 1 of 2
	First Named Inventor: Matthew P. Dugas	
	Title: STEPPED TIME BASED SERVO PATTERN AND HEAD	

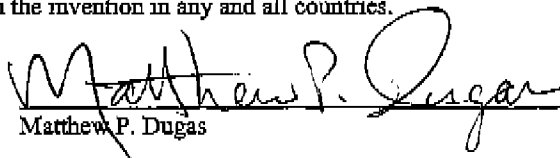
WHEREAS, I, Matthew P. Dugas, a resident of St. Paul, Minnesota 55108, and I, Theodore A. Schwarz, a resident of Woodbury, Minnesota 55125, have invented certain new and useful improvements as described in an application entitled **STEPPED TIME BASED SERVO PATTERN AND HEAD** for Letters Patent of the United States, the application being identified by the Attorney Docket Number set forth above and/or being identified in the United States Patent and Trademark Office by Application No. 11/060.627 filed February 17, 2005; and

WHEREAS, Advanced Research Corporation, a corporation organized and existing under the laws of the State of Minnesota, and having offices at 4459 White Bear Parkway, White Bear, MN 55110 ("Assignee"), is desirous of acquiring the entire right, title and interest in and to the invention, the application, and any and all Letters Patent or similar legal protection, foreign or domestic, to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I transfer to Assignee, its successors and assigns, my entire right, title, and interest in and to the invention, the above-identified patent application, corresponding domestic applications (including divisionals, continuations, and continuations-in-part), corresponding foreign applications, all Letters Patent or similar legal protection issuing thereon, and all rights and benefits under any applicable treaty or convention; and I authorize the Commissioner of Patents and Trademarks of the United States or foreign equivalent thereof to issue the Letters Patent or similar legal protection to the Assignee.

I authorize the Assignee, its successors and assigns, to insert this instrument the filing date and application number of the application when ascertained. I authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries.

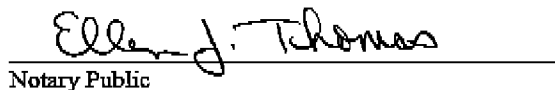
I represent to the Assignee, its successors and assigns, that I have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I, my executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries.


Matthew P. Dugas

CERTIFICATE OF ACKNOWLEDGMENT

STATE OF Minnesota)
) SS.
COUNTY OF Ramsey)

Subscribed and sworn to before me, a Notary Public, this 27th day of April, 2005.


Notary Public



ASSIGNMENT [Entity]	Attorney Docket No.: 34077/US/2	Page 2 of 2
	First Named Inventor: Matthew P. Dugas	
	Title: STEPPED TIME BASED SERVO PATTERN AND HEAD	

Theodore A. Schwarz
Theodore A. Schwarz

CERTIFICATE OF ACKNOWLEDGMENT

STATE OF Minnesota)
COUNTY OF Ramsey) SS.

Subscribed and sworn to before me, a Notary Public, this 27th day of April, 2005.

Ellen J. Thomas
Notary Public

(SEAL)

