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Please record the attached original documents or copy thereof.

- (1) **Conveying Party(ies):** David E. Howard, Dean C. Alhorn and Dennis A. Smith
- (2) **Receiving Party(ies):** National Aeronautics and Space Administration
Washington, D.C. 20546
- (3) **Nature of Conveyance:** Assignment
Execution Date: May 20, 2004
- (4) **Application Number:** NASA Case No.: MFS-31529-1
Application Title: Motor Controller System for Large Dynamic Range of Motor Operation

This document is being filed together with a new patent application for letters patent. The execution date of the application is: May 20, 2004

- (5) **Name and address of party to whom correspondence concerning document should be mailed:**

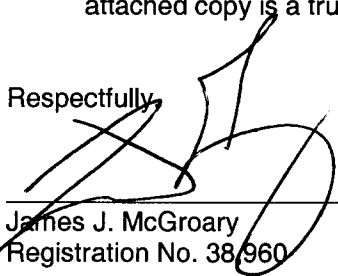
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NASA/Marshall Space Flight Center
LS01/Office of Chief Counsel
MSFC, AL 35812

- (6) **Total number of applications involved:** 1(One)
- (7) **Total fee (37 CFR 3.41):** \$40.00. Authorized to be charged to deposit account.
- (8) **Deposit account number:** 14-0116

- (9) 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. This cover sheet consists of one page.

Respectfully,


James J. McGroary
Registration No. 38,960

May 20, 2004

(Date)

Enclosure(s): NASA FORM 430
ADDITIONAL COPY OF THIS FORM

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner of Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the date of signature below.

Date 5-21-04 Signature Lisa R. Hughes

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PATENT
REEL: 015405 FRAME: 0165



Assignment to the Government (by Government Employee)

Title of Invention: Motor Controller System for Large Dynamic Range of Motor Operation

Inventor(s): David E. Howard, Dean C. Alhorn, Dennis A. Smith

NASA Case No.: MFS-31529-1 Application No.*: _____ Filing Date*: _____

WHEREAS, the parties to this Assignment and Agreement are the undersigned inventor(s) and the United States Government (hereafter Government), as represented by the Administrator of the National Aeronautics and Space Administration;

WHEREAS, the making of this Assignment and Agreement is in accordance with 37 CFR Part 501; and

WHEREAS, the undersigned inventor(s) has (have) executed, on the date(s) indicated below, an application for United States Patent on the above-entitled invention.

NOW THEREFORE, in consideration of employment by the Government, the undersigned hereby:

1. Assign to the Government my (our) full and exclusive right in and to said invention within the United States of America, its territories and possessions, and my (our) entire right, title and interest in and to said application, and any corresponding continuation or divisional application(s) and any patent(s) that may issue therefrom.

2. Agree to grant to the Government my (our) full and exclusive foreign rights in and to said invention, in accordance with 37 CFR 501.9(d), including rights of priority under the International Convention of Paris (1883), as amended. If the Government chooses not to file an application in any foreign country, I (we) may request rights in that country, in accordance with 37 CFR 501.9(d), and such rights will be subject to the reservation to the Government of a nonexclusive, irrevocable, royalty-free license in the invention with power to grant licenses for all governmental purposes. The terms of such reservation will appear, where practicable, in any foreign patent which may issue on such invention.

3. Agree, at the expense of the Government, (a) to execute any document for, (b) to deliver any requested information to, and (c) to cooperate in any manner with the Government in order to allow the Government to protect any interest transferred by this Assignment and Agreement.

*4. Authorize and request the attorneys of record in the application to insert the application number and filing date above when required.

David E. Howard
(Signature of Inventor)

5-20-04
(Date Assignment Executed)

5-20-04
(Date Application Executed)

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D. A. Smith
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(Date Assignment Executed)

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(Date Application Executed)

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Date 5-20-04 Signature Lisa R Hughes

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