Motion Control for Medical Equipment Design

An article written by PMD Founder Chuck Lewin and published by Today's Medical Developments focuses on highly reliable and serviceable motion control solutions for medical devices. Chuck Lewin explains the thought process for choosing the right motion card solution and lists the three main areas of focus for OEMs.

Lincoln, MA (PRWEB) October 2, 2009 -- Today's Medical Developments publishes PMD article on new highly reliable and serviceable motion control solutions for medical devices.

The article, published in the August 2009 issue of TMD, focuses on the increased use of multi-axis motion control cards in medical applications. According to Chuck Lewin, PMD's Founder and VP of Engineering, "The multi-axis motion card approach has a number of advantages, primarily flexibility. Since the interface format to the amplifier is standardized, motors and amplifiers can easily be changed as the application evolves. Another important advantage is that synchronization among axes is relatively easy. Control is usually all under one DSP or microprocessor 'roof,' so axes servo at the same frequency, and profile changes can be synched to a single event."

The article goes on to explain the thought process for choosing the right motion card solution. Below are the three main areas of focus:

Motion Design Approaches
1. Interconnected - Advantages - easy hand wiring and signal access
2. Integrated motion card - Advantages - per unit cost, servicing simplicity, and reliability
3. Stand-alone (Networked or Intelligent Drives) - Advantages - simplified wiring and proximity to the motor or actuator

Lewin concludes, "Choosing the right approach to designing a medical or laboratory machine controller hinges on your goals for reliability, upfront engineering effort, per unit cost, and ease of serviceability. Other factors that will impact the final decision include whether the axes are tightly synchronized, the total number of axes in the application, the size of the machine, and whether more than one motor type will be used."

For more on this article and for other articles by Chuck Lewin, please visit http://www.pmdcorp.com/news/articles.cfm.

For a free whitepaper on Motion Control Components and System Architecture visit http://www.pmdcorp.com/whitepapers/.

To see how PMD motion control chips, cards or drives can improve your next application, contact us at +1-781-674-9860 for a free analysis. For more information, visit http://www.pmdcorp.com.

About PMD:

Performance Motion Devices, Inc (PMD) provides OEMs worldwide with innovative, high performance chip, card, and drive-based motion control solutions. With over 2.5 million installed axes, PMD has the motion control expertise to simplify customer's designs and lower overall costs. PMD products are used to control
brush, brushless and stepping motors in the medical, commercial and industrial markets. For more information, visit http://www.pmdcorp.com.

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