



LUND UNIVERSITY

Automatic Control LTH

Review of prototype for control education

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Review of rotational process by "Computational robotics"

The standard ball-and-beam process is a classical control process which has a wide-spread use in basic control education and laboratories all over the world. The process is successfully used both in undergraduate courses illustrating feedback control based on simplified dynamic models as well as in education at more advanced levels suitable for classes in modeling, system identification and control design.

The rotational process by the start-up company "Computational robotics" is an elegant development of the ball-and-beam concept which in its simplicity offers several extensions and quite challenging aspects of design and analysis regarding underactuated systems, trajectory generation, and constrained motions.

The newly proposed lab-process would allow for a modular setup and in addition to benefits of the standard process also offer new possibilities for experimental evaluation of the latest research in virtual holonomic constraints and periodic motion generation. This would be very suitable and relevant for both the ongoing robotics research and our graduate education in dynamics and control at the Department of Automatic Control, Lund University.

A handwritten signature in blue ink that reads "Anders Robertsson".

Anders Robertsson, Professor
Department of Automatic Control, LTH
Lund University, Sweden