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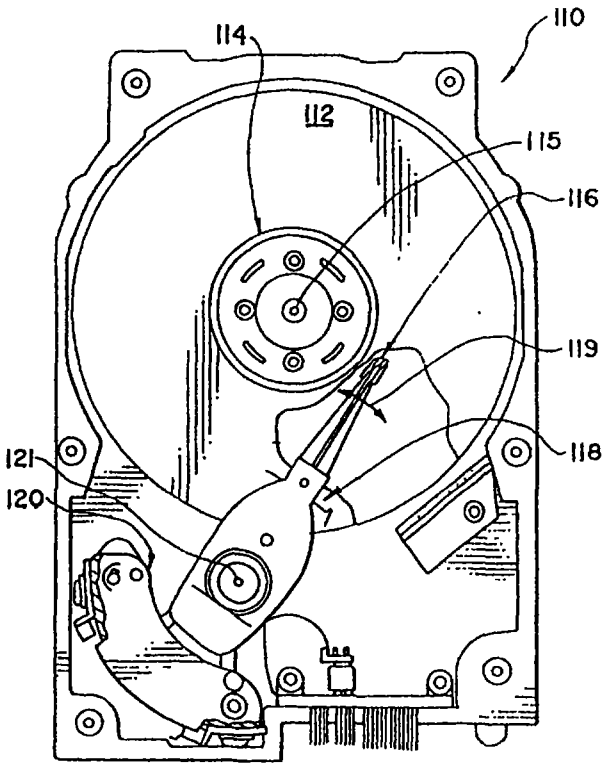


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(54) Title: CLOSED-LOOP SCALING FOR DISCRETE-TIME SERVO CONTROLLER IN A DISC DRIVE

(57) Abstract

A method of configuring a discrete-time servo controller in a fixed-point digital signal processor (DSP) for controlling a servo actuator (206) in a disc drive (110) includes obtaining a stable, closed-loop representation of the servo controller (204) and the servo actuator (206). Bounds on the controller states are derived from the stable closed-loop representation. The controller states are scaled based on the controller state bounds, and the servo controller (204) is configured in the DSP based on the scaled controller states.



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