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[54] MICROPROCESSOR MOTOR CONTROLLER HAVING DISCRETE PROCESSING CYCLES

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[56]

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[57] ABSTRACT

The motor controller system controls the respective motors of a plurality of cooperative apparatus associated with an article processing system, the article processing system for performing a plurality of functions upon an article traversing the article processing system and comprises a motor driver board having a plurality of input channels and a plurality of respective output channels. The motors are in line communication with a respective one of the output channels of the motor driver board. A programmable microprocessor is in bus communication with the driver board's input channels. A plurality of sensors are respectively mounted to each of the apparatus and in bus communication with the programmable microprocessor, the sensors being strategically located on the apparatus to provide such information to the microprocessor as article size, position and velocity information and to provide apparatus operation information. The microprocessor is programmed such that a cycle is preformed at a desired frequency, each control cycle being divided into discrete time intervals during which respective time interval the microprocessor transmits motor control command information to the driver board for respective motors and during other of the time intervals the microprocessor reads information from the sensors. The microprocessor is further programmed to perform additional processing during at least one of said time intervals.

20 Claims, 5 Drawing Sheets

