

# Integrating absolute encoders simplifies machine design

**With the ongoing trend of integrating more devices into single units, the addition of absolute encoders can eliminate sensors and reduce machine startup time, increasing efficiency while lowering costs.**

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Lexium MDrive motor products come with integrated multi-turn encoders for rotary and linear motion (Photo: Schneider Electric)

In the “Integrating absolute encoders simplifies machine design” article, the benefits of motion control devices with embedded absolute encoders are discussed. One of the advantages is that homing executions could be avoided. “Without the need to perform a homing routine on startup, closed-loop systems with absolute encoders can save significant time. Faster machine startups can increase system productivity. As an example, hours of production time can be gained by operating a bottle capping machine as a closed-loop system that does not require homing routines at startup. If the slowest axis of an open-loop bottle-capping machine takes 45 seconds to home at startup each weekday, lost productivity per machine adds up to almost 4 hour/year.”

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