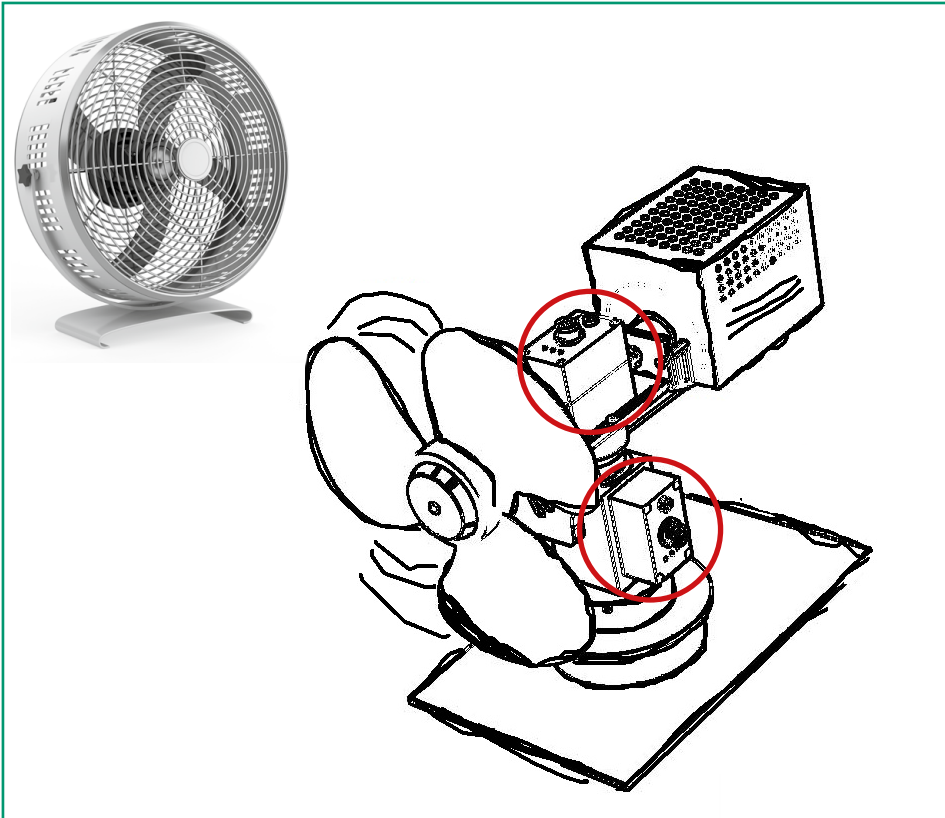


Torque measurements using a dual-range sensor in a test setup

burster



Contact

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Sector

- Test-bench technology

Product name

- Torque sensor

Features

- Extremely fine 0.09° angular resolution
- Axial load
- Bidirectional torque measurement
- Rugged design
- Sampling rate up to 1 kHz

Task

The task is to measure the static and dynamic torques in a test setup for a fan.

An 8661 torque sensor, and specifically the dual-range model, was selected for the task, because not only can it measure the torque of the rotor drive in widely-spaced ranges at two speed levels but it can also provide extremely accurate readings.

Specific Requirement

- Static and dynamic torque measurements
- High angular resolution
- Rugged design using durable and low-friction sensor bearings
- High sampling rate because of the different operating states
- Precise measurement of clockwise and anticlockwise torque

Solution

The 8661 torque sensor measures the rotating and static torque at two positions. A torque/speed/power calculation is performed for the rotating torque. The optional USB interface can be used with the application-oriented DigiVision software for analysing the measurements.

The reactive torque and rotational angle are measured for the static torque. The dual-range model of the 8661 torque sensor is available with a choice of range factors (1:4, 1:5 and 1:10) or a custom factor. Dual-range sensors allow measurements in an additional measurement range which is narrower but has high measurement accuracy.

