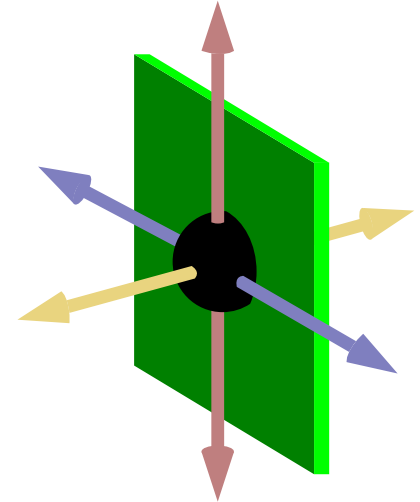


Inertial Measurement Test Bench (Bac.)

Integrated Inertial Measurement Units (IMUs) are used to measure the forces on and the angular rates of an object. Angular rate measurements at the axis of an internal combustion engine can be used to estimate the engine speed. Because of constructive constraints in certain engine applications (small, handheld), it is not possible to mount a sensor directly at the axis of rotation. The goal of this bachelor thesis is the design of a test bench to research the influences of non-ideal sensor placement.



Topics

- Comparison of existing evaluation boards for IMUs
- Programming of a software interface for data acquisition
- Design of a small-scale demonstration test bench
- Evaluation of the test bench with a series of measurements

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