

Enhanced force measurement

The Problem

In general, objects are curved, or deform when forces are applied to them, as in the case in for example a footfall, and thus there are non-normal components of force. Conventional force plates only measure the normal force.

The Solution

This technology is a system and method of simultaneously measuring the magnitude and direction of three components of force.

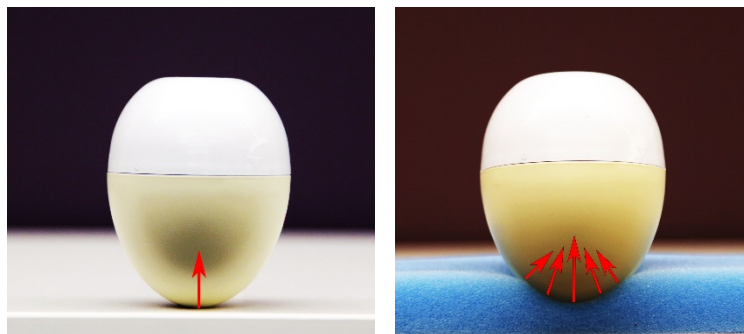


Figure showing direction and magnitude of contact pressure between a rigid material (left) and an elastically deformed material (right).

Applications

- Foot force analysis
- Tire contact analysis

Benefits

- Full vectorial force measurement
- Shear measurement
- Dynamic measurement

Keywords

tactile sensor, photoelasticity, contact pressure distribution, shear-stress, stress analysis

Opportunity

- Licensing
- Collaborative research

Patent protection

This technology is protected by an International Patent Application: PCT/JP2015/002802.

For more information

Technology Licensing Section at bdtl@oist.jp or +81-(0)98-966-8937