

# 加速度センサの応用分野

## The application of Accelerometers

私たちの周囲にあるさまざまな振動。

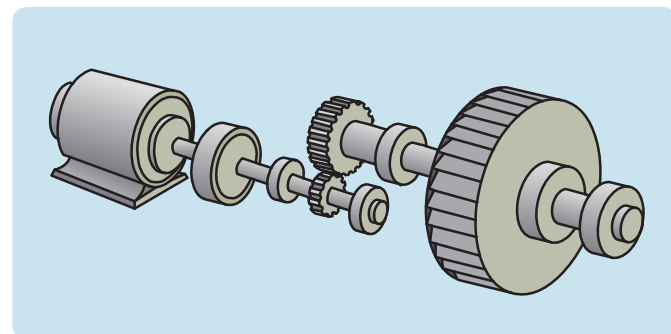
自動車や電車のような乗り物をはじめ、パソコンやオーディオ機器などの電気製品やそこに使われる電子部品、産業機器、各種プラント、地盤と建築物、果ては私たち人間自身の動きまで。加速度センサの用途はあらゆる分野に広がっています。

There are all kinds of vibrations in the world around us, and there are so many fields in which accelerometers are being used: vehicles such as cars and trains, electrical products like PCs, audio equipment (and the electronic components within them), manufacturing machinery, factories, the ground and buildings, even in our own bodies!

### ●各種プラントの異常振動監視・設備診断

Monitoring of abnormal vibrations in factories, machine diagnosis

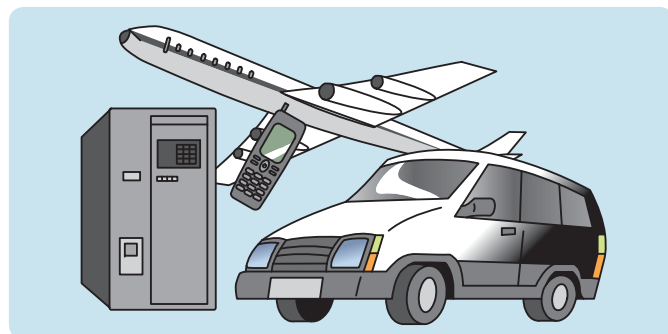
鉄鋼、製紙、石油化学、発電所、セメント工場などの回転機械の振動監視とベアリングの劣化診断  
The monitoring of the vibration of rotating machinery in steel works, paper mills, petrochemical plants, power stations, cement plants, etc. and the diagnosis of bearing degradation



### ●製品の振動特性研究と信頼性試験および出荷検査

Research into the vibration characteristics of manufactured products, reliability testing, and pre-shipment inspections

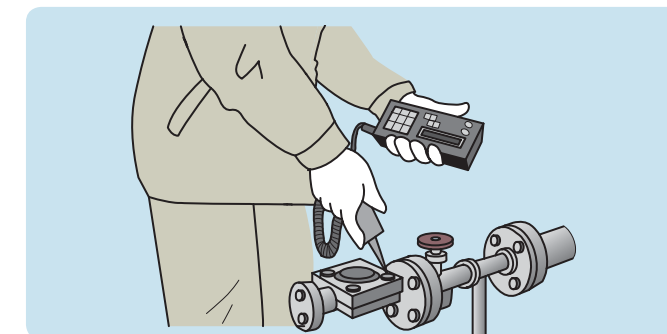
自動車、航空機、船舶、ロケット、衛星からモータ、HDD、ファン、AV機器、携帯電話まで  
From cars, aircraft, ships, rockets and satellites, to motors, HDDs, fans, AV equipment and mobile telephones



### ●配管やトラップのリーク検出

Leak detection of pipe and trap

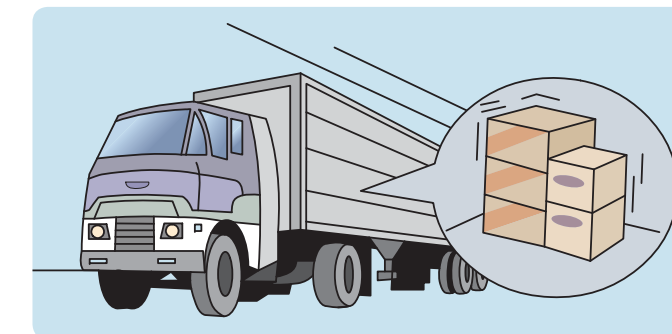
プラントの保全、省エネ対策  
Factory maintenance, measures to reduce energy consumption



### ●製品輸送時の振動・衝撃計測

Measurement of vibration and shocks during product transportation

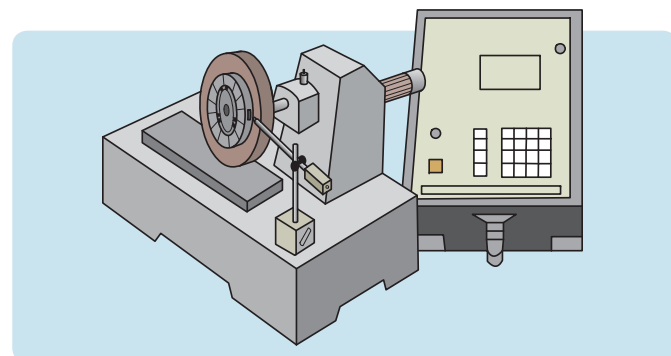
輸送環境の調査、包装資材の合理化  
Investigating transportation conditions, rationalization of packaging



### ●アンバランス振動測定

Measurement of unbalanced vibration

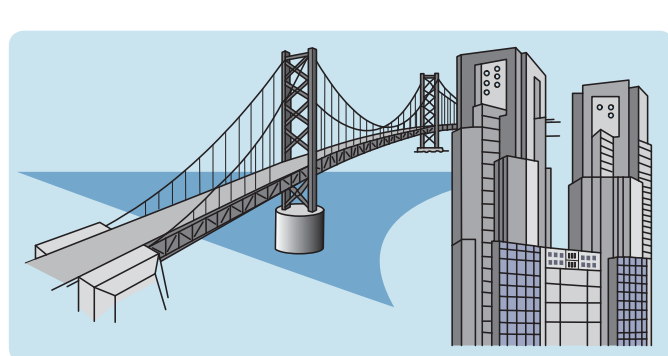
旋盤、研削盤、シリコンウエハ洗浄機のバランス修正  
Adjustment of the balance of lathes, grinders, silicon wafer cleaners



### ●大型構造物の耐震性研究

Studies of the earthquake resistance of large structures

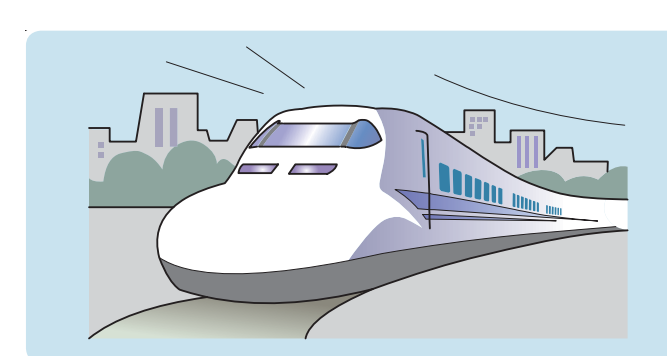
ビル、ダム、橋梁、鉄塔  
Buildings, dams, bridge girders, steel towers



### ●車輻の乗り心地研究

Studies of the ride quality of vehicles

鉄道、自動車、航空機、農機、建機  
Trains, cars, aircraft, farm machinery, construction machinery



### ●スポーツ用品の開発

Development of sporting equipment

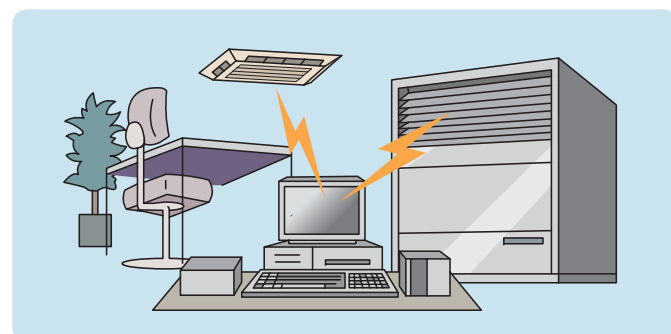
スキー板、ラケット、ヘルメットの振動モード解析  
Vibration mode analysis of skis, racquets, helmets



### ●空調機の運転状態監視

Monitoring of the operation of air conditioners

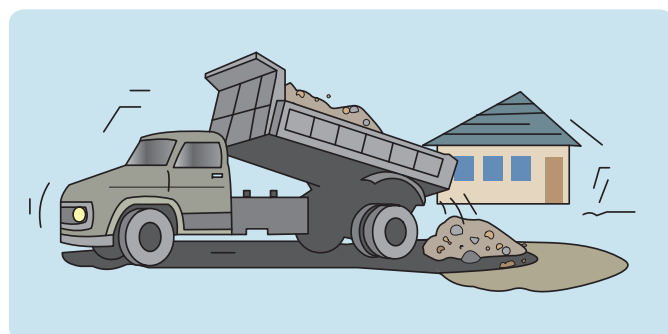
クリーンルーム、インテリジェントビル  
Clean rooms, intelligent buildings



### ●振動公害の調査

Surveys of vibration pollution

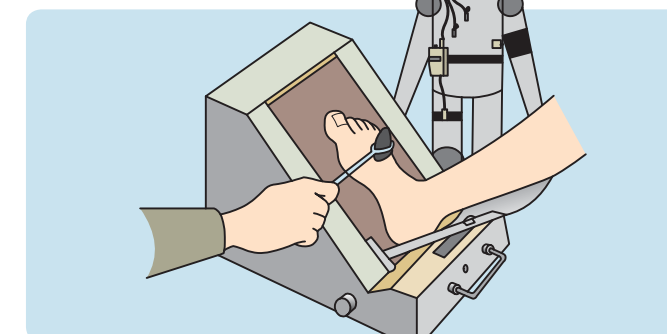
建設現場、道路交通、工場、地盤  
Construction sites, road traffic, factories, the ground



### ●医療分野

Medical fields

骨粗鬆症の診断、人体の動作モニター  
Diagnosis of osteoporosis, monitoring body motion



### ●聴音器としての利用

Use in listening devices

水道の漏水音検知、災害時の人命救助  
Detection for leaks in water mains, rescues in civil disasters

