



DMS (Driver Monitoring System)

 SUMITOMO RIKO

Outline



- By the detection results from our sensor, it can estimate an occupant's condition (**fatigue, drowsiness, sudden illness etc...**). Then you can **connect to an advanced services** such as alerting a driver, actuating an driver-assistance systems and calling in the outside.
- **SR(Smart Rubber)Sensor** can be built into a seat. It is made of **the special elastic material** which is **soft and conductive**.
- It can detect **heartbeat, breathing and body motion** which are from the pressure changes sensed by SR sensor.

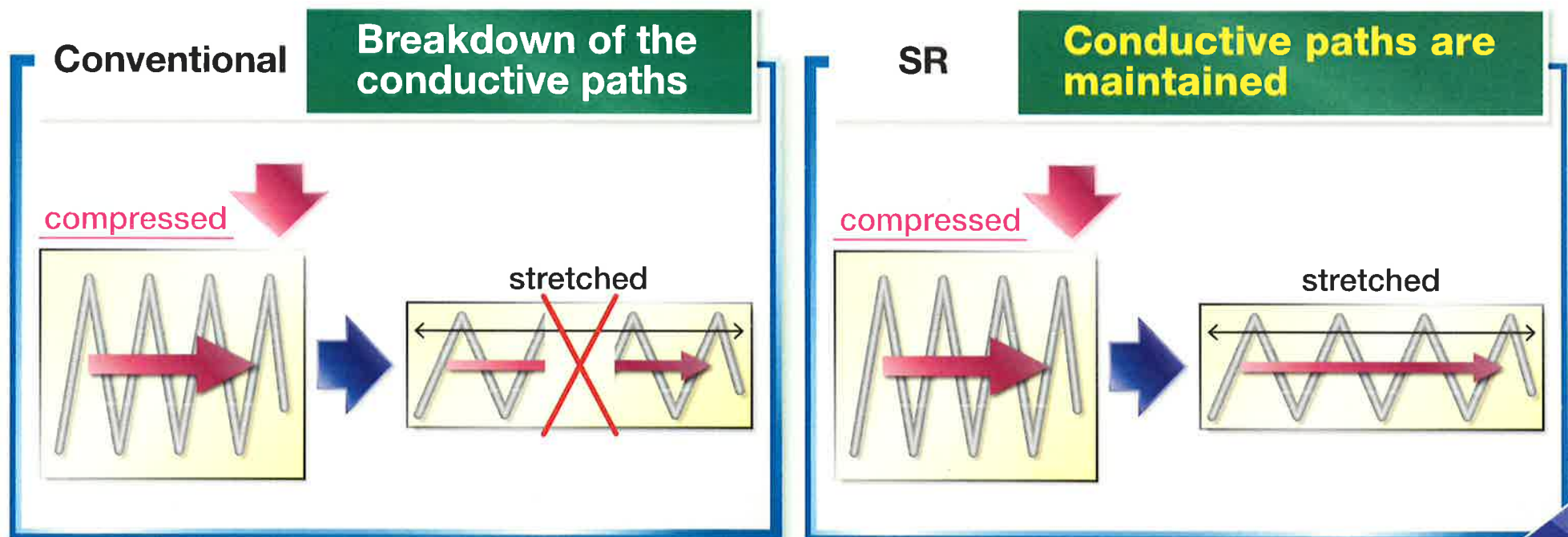
SUMITOMO
ELECTRIC
GROUP



What's SR(Smart Rubber) ?

 SUMITOMO RIKO

SR(Smart Rubber) is our new developed **elastomer** which is **soft and conductive**. It maintains the electrical conductivity even if it is stretched.



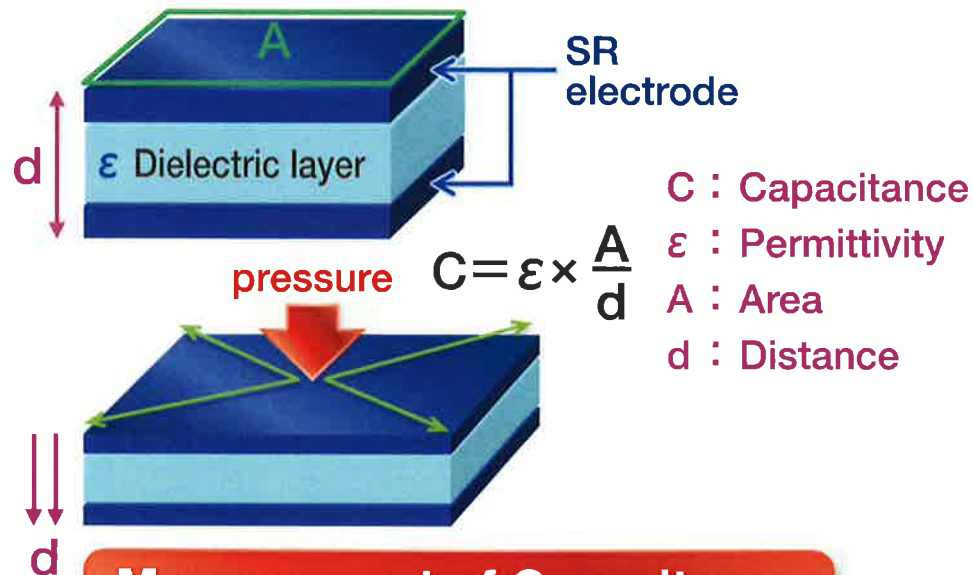
SUMITOMO
ELECTRIC
GROUP



Principle of Sensing

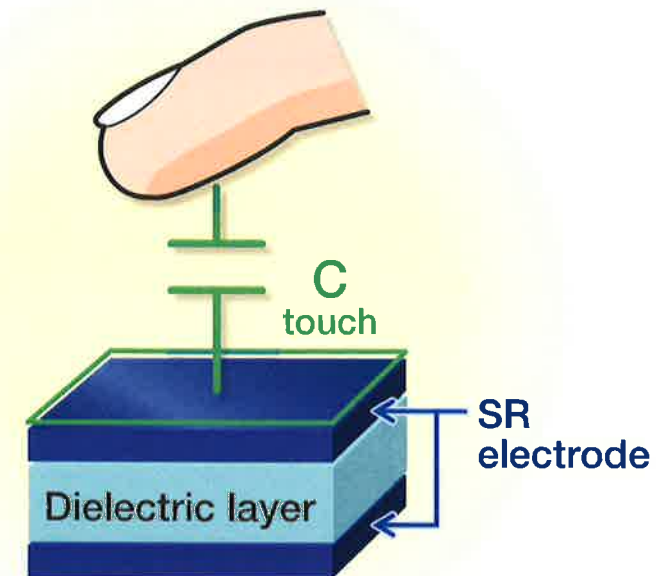
Electrostatic capacitor all made of elastomer

◎ Principle of Pressure sensing [applied to this built-in sensor]



Measurement of Capacitance between the electrodes

◎ Principle of Touch sensing



Measurement of Capacitance between a finger and the upper electrode



Vehicle application

