



# 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.

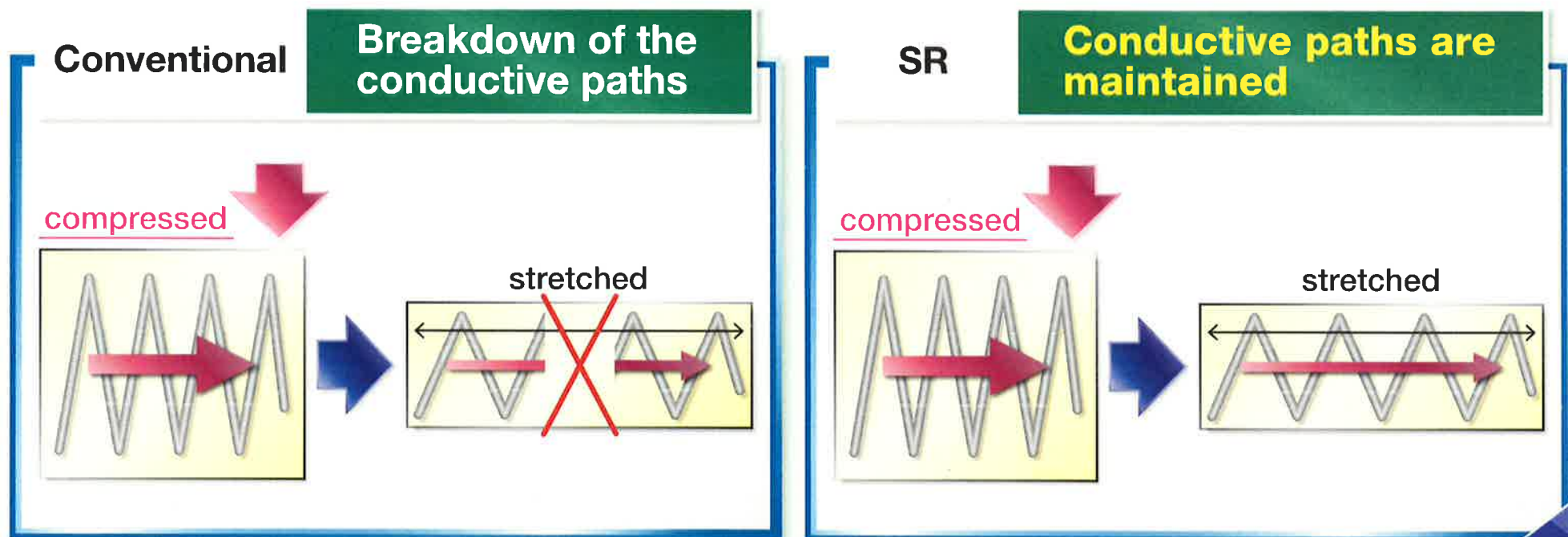
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# What's SR(Smart Rubber) ?

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



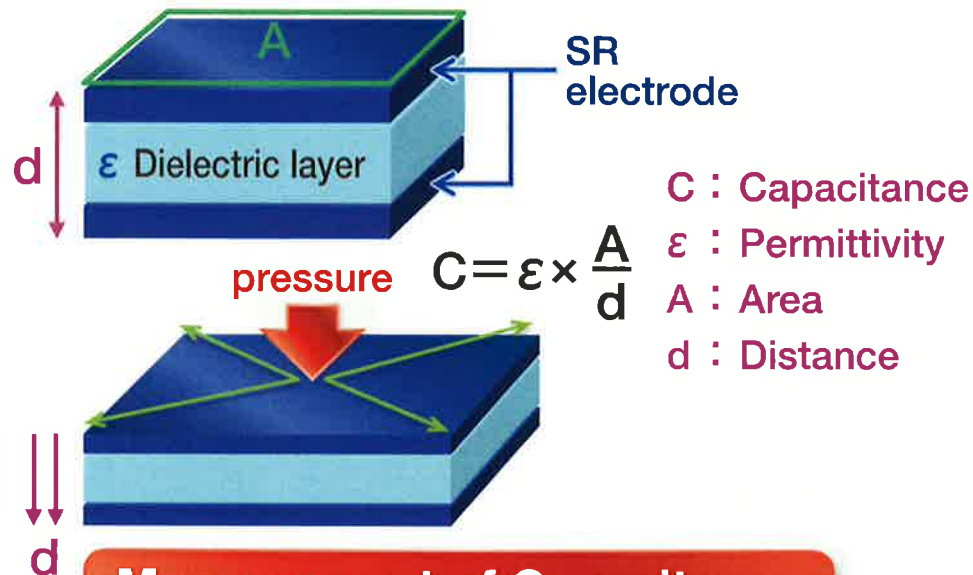
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# Principle of Sensing

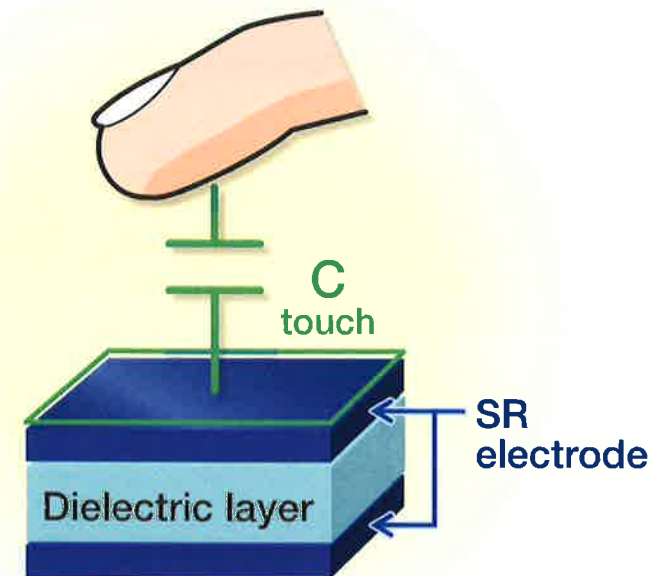
Electrostatic capacitor all made of elastomer

## ◎ 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

