

Make All Materials Smart

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# Make all materials smart!



#### Make all materials smart!



#### Any object becomes an enhanced Touch device :

Nanomade brings Touch experiences to another level (wood, metal, complex shapes, gloves compatibility, adaptative UI ...)

New Touch interactions, new designs, new features are unleashed with a level of performance that can hardly be done by existing competitors.



#### Any object becomes a Sensing device:

Nanomade enables deformation detection enabling physiological parameters monitoring, object presence detection, structure deformation...



#### Make all materials smart!

The most sensitive Force Sensing technology of the market with Capacitive sensing included

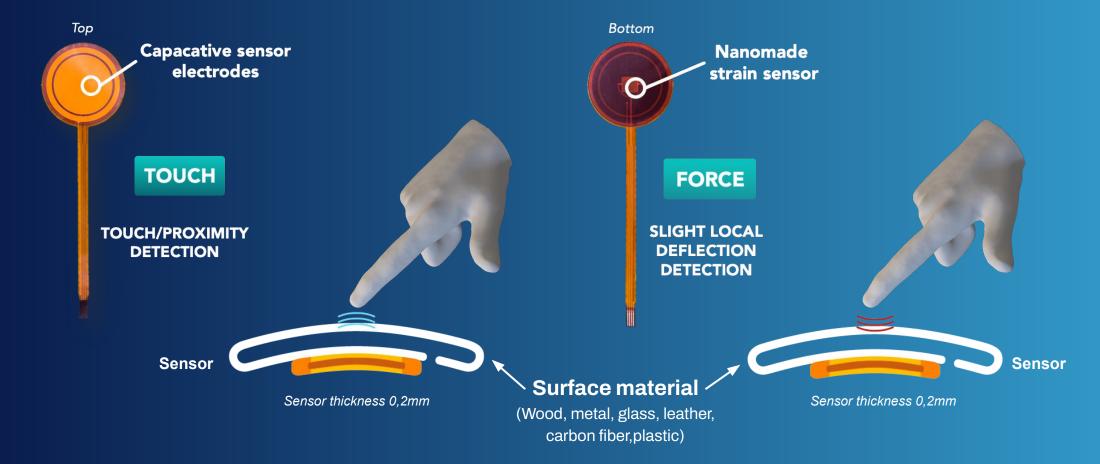








#### Nanomade Dual Sensor







#### Nanomade Sensor









# Customised sensor : Windows lifter (Automobile industry)











# Mature technology ready for industrialisation (TRL7)

#### Mechanical ageing



<3% : average resistance change after 10 millions cycles

#### Thermal Shock and storage



<8% : average resistance change after 20 thermal shocks (-40° to +85°)

 ${<}\,5\%$  : Resistance change for 20 days of storage

at +85°C & 85% Relative Humidity



## Nanomade technology explained







### Differentiation

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#### What sets us apart...



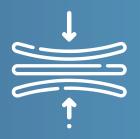
Flexible

Bendable (10M), great for 3D shape



Thin & Transparent

Thickness : 0,2 mm Transmittance : 93% Haze : 1



Force & Capacitive

F or C, on demand and through temperature cycles



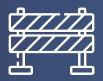
Sensitive

x60 compared to strain gauge

Can measure heart beats from a Touch!



#### What sets us apart...



#### Technological Barrier

- The secret ink formula is extremely difficult to reproduce
- Nanomade patents are strong and protect the sensor design
- Signal processing software & Pulse machine learning is difficult to reproduce and tune



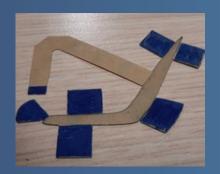
#### Light Manufacturing

- Designed to use very common and classic elements (Polyimide, ...)
- Ink cost is extremely low
- Printers are not expensive, high volume could be reached without heavy investments

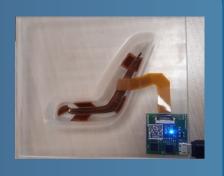
#### A typical NRE project



Client sends a 3D model



Nanomade design the sensor



Nanomade integrate the sensor



Nanomade demonstrate function



Sensor industrialization

Incl. Cost reduction



### Thank you!

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