

## Wearable Electronics

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in cooperation with



**Fraunhofer** Institut  
Zuverlässigkeit und  
Mikrointegration



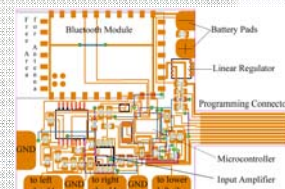
ECG-Shirt

### ECG-Shirt

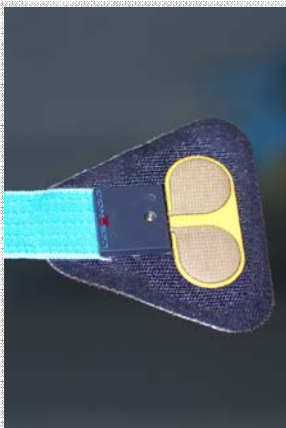
To monitor long term heart activities. Embroidered electrodes and embroidered connections.



Installed ECG-Module



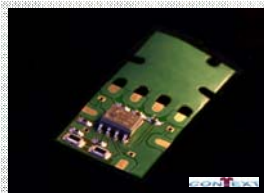
Schematic of the ECG-Module



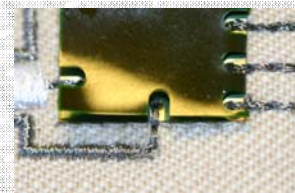
Molded EMG-Sensor Housing

### EMG-Sensor

Textile integrated capacitive sensor to contactlessly measure muscle activities in an unobtrusive way.



Integrated Circuit



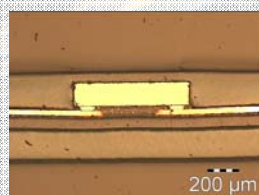
Embroidered Contacts



Textile RFID tag with woven antenna

### Textile Integrated RFID

RFID tags with a woven antenna and a special polyurethane encapsulated coupling module



Encapsulated RFID chip



TextraLog RFID tag in a jacket