CONTROL SYSTEM

SOFTWARE

PRODUCT DEVELOPMENT

- Customized solutions
- Over 40 engineers for electronics, computer science, construction & physics
- Short development times
- Complete with qualification
- Very fast series availability



CONTROL UNITS (ECU)

- Proven & qualified reference designs
- Expandable with interfaces
- Smallest sensors up to modular PLC
- Conformity EN50155 / EN45545 / EN50128 / EN50657
- Life Cycle Management



APPLICATION DEVELOPMENT

- Customized solutions
- Development according to EN50128 / EN50657
- Modularization, parameterization
- C / C++ / C# / IEC61131 / ...



CONSTRUCTION KIT

- ARM processors from various manufacturers
- UART, SPI, I2C, CAN, Ethernet
- Digital I/O (24VDC..230VAC)
- Analog I/O (0-10V/4-20mA)
- GPIO's (3.3V)
- Motor H-Bridges (up to 1kW)
- Potential-free contacts (relays)



PROTOCOL CONVERTER

- Connection of your system to the **TCMS**
- Interaction-free connection of networks
- Hardening of cyber security
- TRDP, CANopen, UDP, ...



TOOLS & DRIVERS

- Implementation RTOS, Linux, SPS and much more
- Integration of protocol stacks TRDP / IPTCom / CANopen
- Master or Slave / DALI and much more
- Protocol Simulators / Testoppose



m-u-t PLATFORMS

- Proven & qualified reference designs
- Expandable with interfaces
- Smallest sensors up to modular PLC
- Conformity EN50155 / EN45545 / EN50128 / EN50657
- Life Cycle Management



HMI / IoT / SENSORS

- Sensors for proximity, distance measurement, gesture recognition, determination of concentration and much more.
- Integration of operating and display elements
- Independent cloud - solutions for vour Products (IoT)



m-u-t SANDBOX

- Proven modules & tools
- Abstracted interface (API) for a quick start
- Web server template
- EN50128 / EN50657 compliant



Do you have any questions or would you like advice? You are welcome to arrange an appointment.

22880 Wedel - Germany info@mut-group.com

m-u-t GmbH Am Marienhof 2 +49 (0)4103 9308-0

Industrial Sensing www.mut-group.com