

# Design & Development of Flexible switches for commercial vehicles

## The Client & Industry

The client is a leading German Tier 1 Company.

## The Product

1. Flexible switches is a system of push and rocker switches including a four-slot module where the switches can be placed in any configuration, 4 rocker switches or 8 push switches. The range of different switches. Only one module shall be developed
2. The module shall be symmetrical to fit both LHD/RHD vehicles and mounting locations in dashboard / front shelf / bunk

## Tools & Technologies

- Geny
- CANoe
- Isystem-ic5000
- Eclips



## Project Highlights

- Generated the LIN stack from Geny tool with given IdF files
- Switches–Push button and Rocker switch
- Illumination–Functional and Backlight LEDs
- PWM–Functional and Backlight Illumination
- ADC–Battery Monitoring, Short circuit protection
- Interrupts–GPIO Interrupts
- SPI–Configuration of SBC IC
- SBC–modes
- Power modes–Sleep mode, Wakeup mode
- Flash bootloader–Modification in existing Bootloader
- I2C–Read switch id stored in External EEPROM of switch
- GPIO–for detection of Switches, LED- ON/OFF