FLANDERS MAKE

Develop, validate, and demonstrate sensor technologies in realistic conditions

AUTONOMOUS (OFF)ROAD VEHICLES

TECHNICAL SPECIFICATIONS

Electrical vehicle with individual wheel control

Specifications of our Ranger Rover Evoque:

- Fully electric vehicle
- With 4 individual drivetrains and in-house developed battery pack
- Individual wheel drive control: 4 x switched reluctance motor
- Individual wheel friction brake control: Slip Control Boost unit
- Steer-by-Wire
- dSPACE rapid prototyping platform and Nvidia drive PX2 360° sensors for environment perception by:
    - 6 camera's
    - 6 Lidars
    - 6 radars
    - 12 ultrasound sensors
- V2X communication capabilities
- Throttle and brake by wire

For more information, please contact
arjan.voorbij@flandersmake.be

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Hybrid vehicle with in-wheel e-motors

Specifications of our hybrid Ranger Rover Evoque:

- P4 hybrid-through-the-road drivetrain:
  - The front wheels are driven by the original combustion engine and transmission;
  - Each rear wheel is driven by an in-wheel electric motor.
- Each rear wheel is equipped with active suspension;
- dSPACE rapid prototyping platform with possibilities to connect additional sensors.

Equipment for electric & hybrid vehicles

- Vehicle dyno-roll bench (200km/h)
- Automated test bench for electric two-wheelers
- In-wheel-motor test rig – Open Vehicle Platform with connected IoT
- 2 mobile data–acquisition systems for on-road testing of vehicles (CompactRio)
- 200 GPS-based vehicle data-loggers
- Datron speed measurement device
- 4 electric vehicles (2 x Nissan Leaf, KONA and BMW i3-Rex)
- 2 plug-in hybrid electric vehicles (Volvo V60 and Mitsubishi Outlander)
- 4 e-karts
- 1 Formula Race electric car
- 20 public plugs (mode 1, 2 and 3), 2 to 3.6kW AC, 7kW AC and 22kW AC
- 2 indoor charge boxes (mode 3)
- 1 fast charger (mode 4) / 50kW CHAdeMO
- DC CHAdeMO EV connector (up to 500V and 120A)
- DC CCS EV connector (up to 100V and 125A) - EVSE tester

Automated off-highway vehicle test platform

- Agricultural machine with front loader
- Highest level of factory-installed automation
- Openness to interact with existing controller

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