



Automatic Driving System



TAZIO - Hardware

GEAR MANIPULATOR

The gear manipulator is developed using an anthropomorphic robot equipped with gear shift grip tool. The robot is insertable on an adjustable support in x, y, z axes, integrated with the seat through knob latches and having the following characteristics:

- 3+2 axes (3 of the arm + 2 of wrist)
- Max range of action 410 mm
- Max speed 2.1 m/s
- Positioning repeatability 0.02 mm
- Max charge on wrist 2.16 Nm

CONTROL BOX

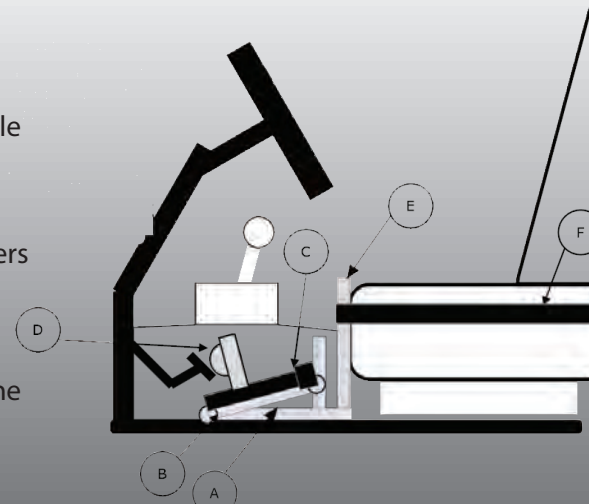
La Control Box is able to:

- Communicate via CAM with NCM control units, NBC, NFL, MTA, DCTM
- Load and run a complete simulation of road mission
- Pilot the manipulator robot manual or selespeed and brake / clutch / throttle actuators
- Manage the electronic throttle
- Directly control the torque / revolutions setpoint on the actuation of drive rollers
- Perform automatic refueling
- Start the engine synchronization with the aid driver
- Manage the internal alarms of water temperature, oil pressure .. faults engine control unit and external alarms.

PEDAL ACTUATORS

The pedal actuator is composed of an articulated pusher driven electrically and by a centering clamp of pedal gripping. Every single actuator has the following characteristics:

- Max stroke 200 mm
- Risolution 0.05 mm
- Max speed 400 mm/s
- Max pushing force 450 N
- Max clamp opening 65 mm



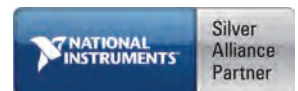
TAZIO - Software

TAZIO Supervisor : For fixed installations, is provided a supervision software, installed on a PC, for the test management from the testing room (tracking of states and alarms, logging measurements, suspension test, return parameters.)

TAZIO Profile Editor : This editor allows advanced user to define a spreadsheet of test cycles and sub-cycles, warmup, recovery gear for endurance and emissions testing.

TAZIO Regulator Editor : This editor allows the expert user to fill out a specific parameter file of the vehicle model. The control parameters are the PID coefficients of the speed and timing regulator and adjustment of braking and declutching.

TAZIO



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