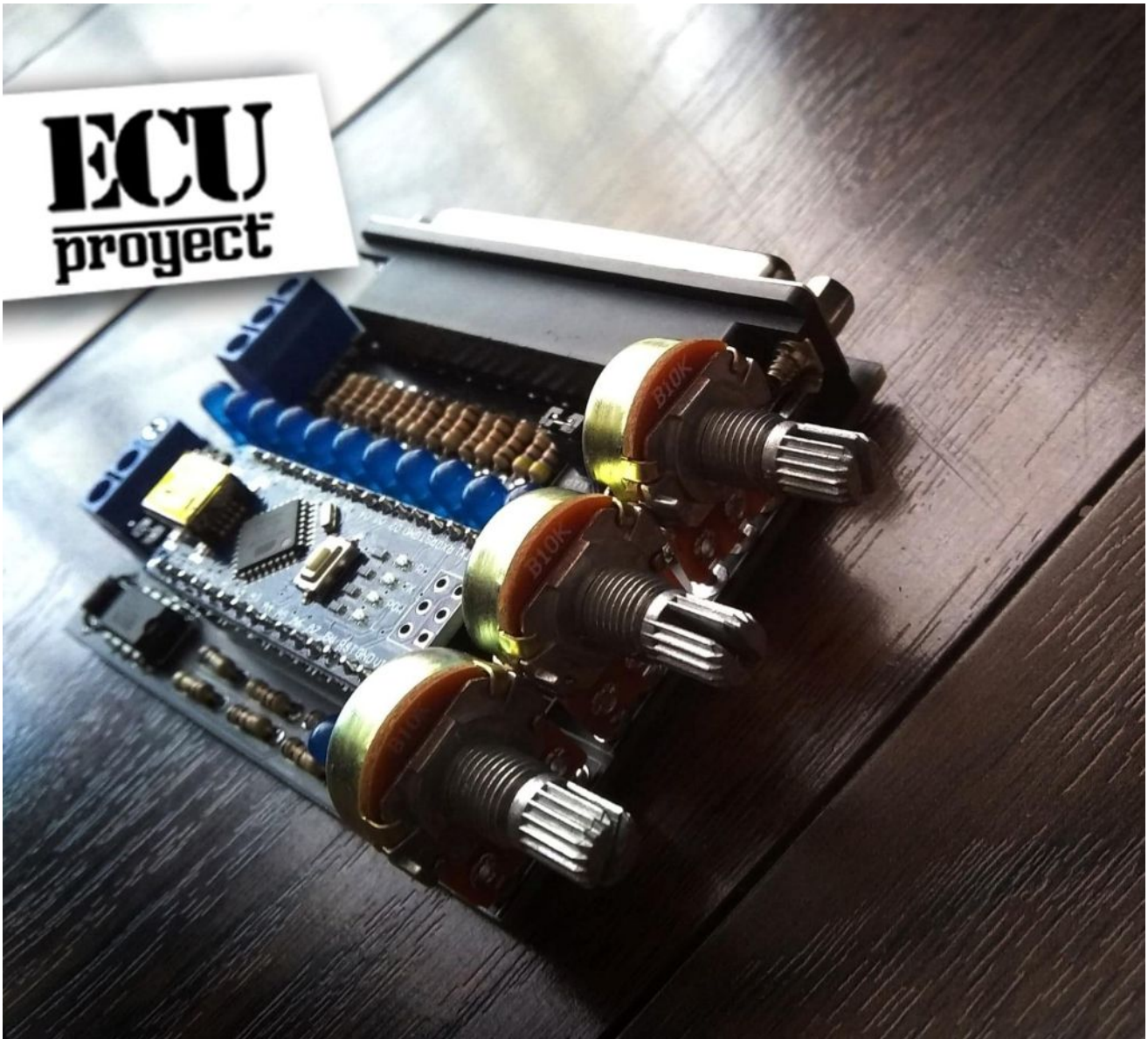


Engine simulator For/ProyectECU



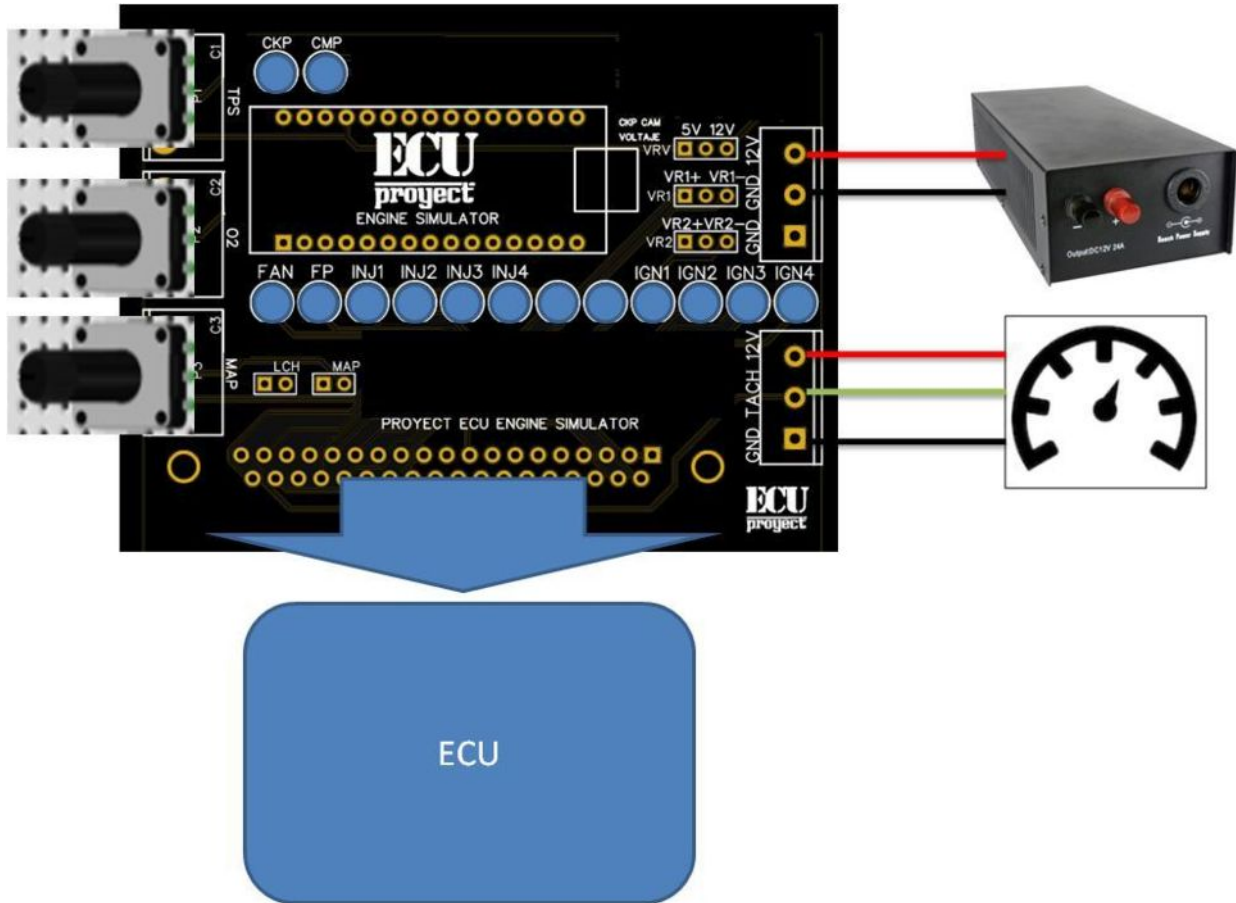
The engine simulator is a device that connects directly to an ecu and provides signals to simulate that it is connected to an engine, and with this perform the necessary tests.

Electrical connections:

- GND.- goes to the ground of the battery or power supply.
- 12V.- goes to 12V positive terminal.
- TACH.- This provides direct tachometer signal from the ecu, extra 12V and GND outputs are provided for the tachometer for convenience.

ProjectECU engine simulator

Cable connections:



What the LED lights mean

- CKP.- shows the pulsations of the crankshaft signal.
- CMP.- shows the pulses of the tree signal.
- FAN.- Indicates if the fan output is on/off.
- FP.- Indicates if the fuel pump output is on/off.
- INJ1.- Indicates if the Injection Bank1 output is on/off.
- INJ2.- Indicates if the Injection Bank2 output is on/off.
- INJ3.- Indicates if the Bank of Injection3 output is on/off.
- INJ4.- Indicates if the Bank of Injection4 output is on/off.
- IGN1.- Indicates if the Ignition Bank1 output is on/off.
- IGN2.- Indicates if the Ignition2 Bank output is on/off.
- IGN3.- Indicates if the Ignition Bank3 output is on/off.
- IGN4.- Indicates if the Ignition4 Bank output is on/off.

What are the Jumpers/Selectors for?

The jumpers are moved or removed to select certain functions that are listed below:

VRV.- Used to select the voltage of the CKP and CAM signal, you can choose 12v or 5v.

VR1.- It is used to select in which cable the CKP signal will arrive, you can choose cable + or cable -.

VR2.- It is used to select in which cable the CAM signal will arrive, you can choose cable + or cable -.

LCH.- Used to activate or deactivate the LAUNCH signal from the ecu. Remove jumper is to disable signal, put jumper is to enable signal.

MAP.- Used to activate the simulated MAP by potentiometer or to use internal MAP. CAUTION!! If the ecu has internal MAP, the potentiometer mode should not be activated.

What are the Jumpers/Selectors

The potentiometers are used to simulate input sensors, these are listed below:

TPS.- Moving the potentiometer is used to simulate a TPS sensor (accelerator).

O2.- Moving the potentiometer is used to simulate a WIDEBAND sensor.

MAP.- Moving the potentiometer is used to simulate a MAP sensor (DO NOT USE THIS MODE IF THE ECU HAS INTEGRATED MAP).

What is the mini USB connection for?

The module has a mini USB connector that is used to connect and change the CKP/CAM pattern to use. For reference the program for PC is called Druid4Arduino.

Initial start-up:

Plug the ECU into the DB37, power the simulator with 12v and gnd.

The ECU will turn on and several operation leds will turn on to indicate that we have signals from Injectors, ignition, etc.

At this moment we can connect the ECU to Tunerstudio, and observe the signals supplied by the simulator.

BY DEFAULT THE SIMULATOR SEND CKP 60-2 AND CAM 1 PULSE.

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Any of these acts will not give rise to the obligation to accept returns of (except those returns specifically stipulated in this document) or to update the design of any of these products.