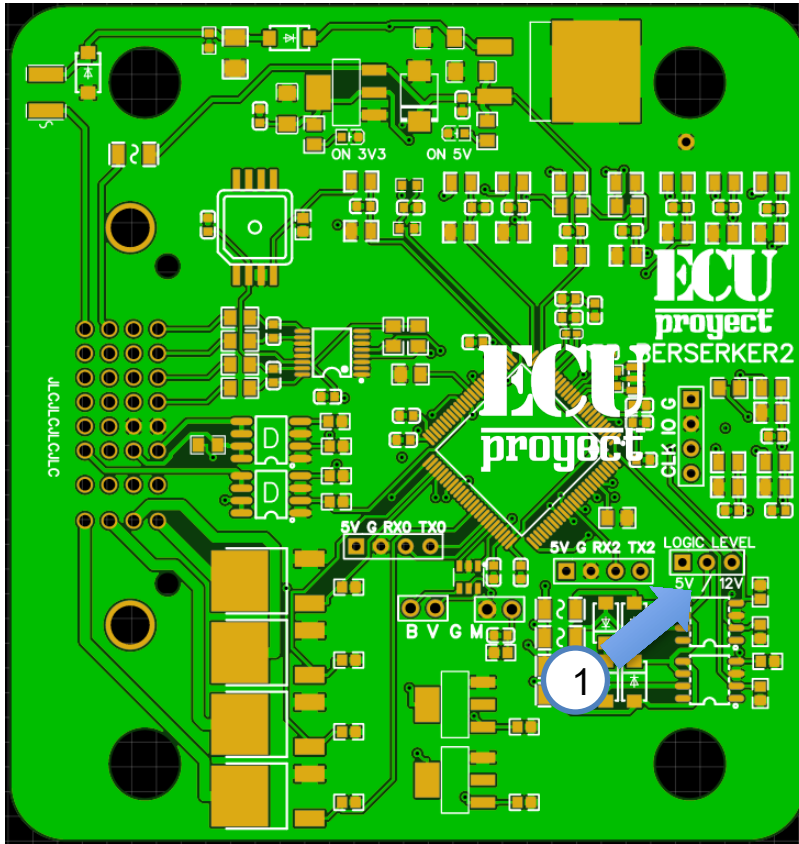


BERSERKER QUICK GUIDE

Use Board Layout: 16CH



Jumpers (selectors)

1.- Selector to choose ignition outputs at 5V or 12V

The ECU comes in VR mode, to connect a hall sensor you just have to place a Pullup resistor!

12V.- power supply for ECU (normally to switch)
GND.- ground, the ground is common for sensors, and other devices
5V.- 5V output for sensors (TPS, MAP)
INJ1, INJ2, INJ3, INJ4.- Injection banks 1,2,3 and 4
IGN1, ING2, IGN3, IGN4.- Ignition banks 1,2,3 and 4
FLX.- input for Flex Fuel sensor (ethanol content)
IAT.- air intake temperature sensor
CLT.- coolant temperature sensor
TPS.- throttle body position sensor
LNCH.- input to activate launch control (IT IS ACTIVATED WITH GND OF THE SAME ECU)
O2.- input for oxygen sensor (wideband with controller or narrowband straight)
VSS.- configurable digital input (nitro, speed, etc)
BRO.- input for Barometric sensor (MAP of 1 bar)
VR1+.- crankshaft sensor input or CKP type OPTICAL or HALL (add pullup) also configurable as positive pulse VR
VR2+.- OPTICAL or HALL type tree or CAM sensor input also configurable as positive pulse VR
VR1-.- is only used in case of configuring crankshaft sensor as VR type, this is the negative complementary pulse input
VR2-.- it is only used in case of configuring tree sensor as VR type, this is the negative complementary pulse input
FAN 1,2.- outlets for radiator fan (use with relay)
FP.- output for fuel pump (use with relay)
TACH.- tachometer output
BST.- outlet for Boost Control valve
VVT.- output for variable shaft
FUEL.- for logging of pressure sensor
OIL.- for logging of pressure sensor

INTEGRATED VR card

4 bar internal map

Programmable via Bluetooth

BERSERKER QUICK GUIDE

Berserker

A	B	C	D	E	F	G	H	
1VR2+	VR2-	VR1-	VR1+	GND	X	IGN1	INJ1	1
2O2	TPS	OIL	LAUNCH	GND	TACH	IGN2	INJ2	2
35V	CLT	BARO	FLX	VVT	FP	IGN3	INJ3	3
412V	IAT	FUEL	VSS	BST	FAN	IGN4	INJ4	4



Big Pins

colors may vary

ECU project

www.facebook.com/ProjectECU/

CAVEAT

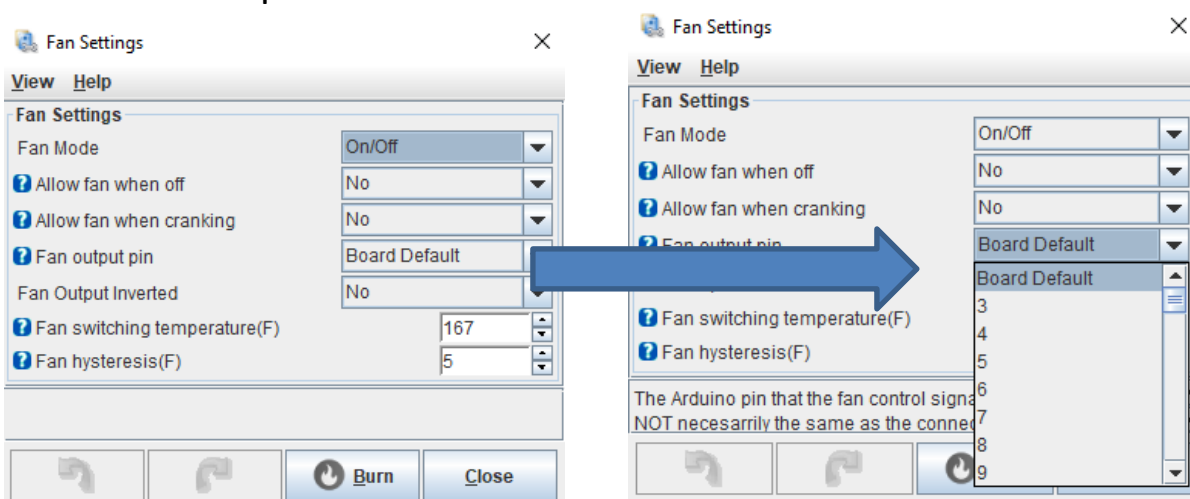
Do not record tunes or megasquirt files in this ECU, this ecu IS NOT MEGASQUIRT, it is not clone of megasquirt either. Therefore, recording an incompatible tune will cause the ecu not to synchronize time and failures will occur.

RECOMMENDATION:

Follow the Tutorial1 and the virtual drive files to connect to the ECU and do the Hardware test!
Do this before you install the ECU!

How to assign extra inputs or outputs?

Some menus have something called “pin”, this is used to assign this function to another available output.

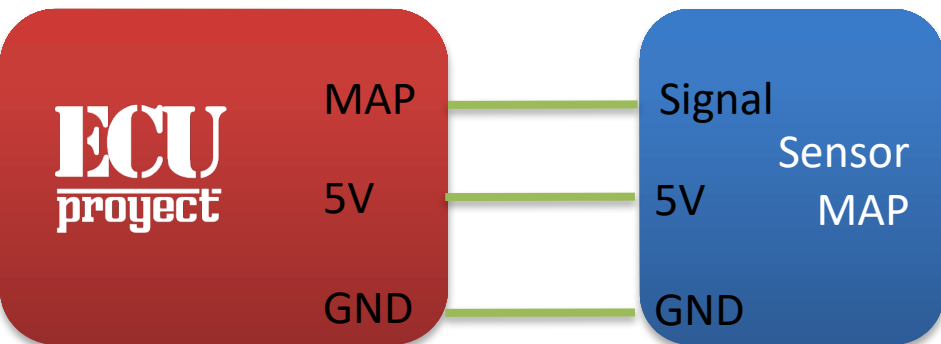


Use this table to find out which pin each reassignable output has.

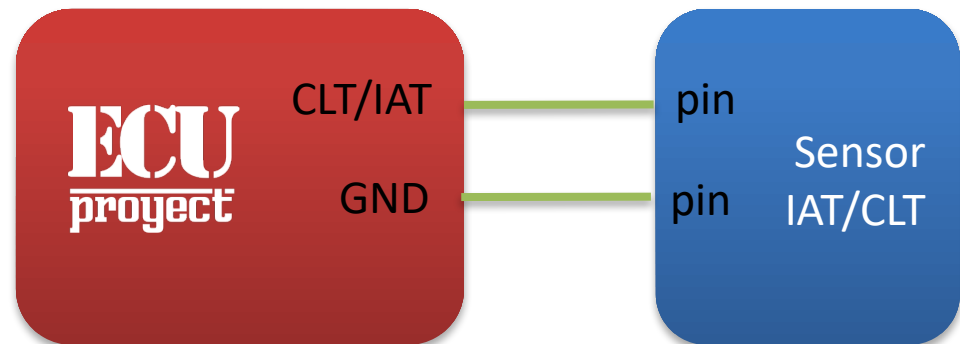
Berserker 2.0:

Inputs	O2.- A12 (Analog)		
	Baro.- A9 (Analog)		
	Oil press.- A13 (Analog)		
	Fuel press.- A0 (Analog)		
	Launch.- 3 (Digital)		
	Flex.- 8 (Digital HS)		
	VSS.- 5 (Digital HS)		
Outputs	BST.- 36 (6amp)		
	VVT.- 33 (6amp)		

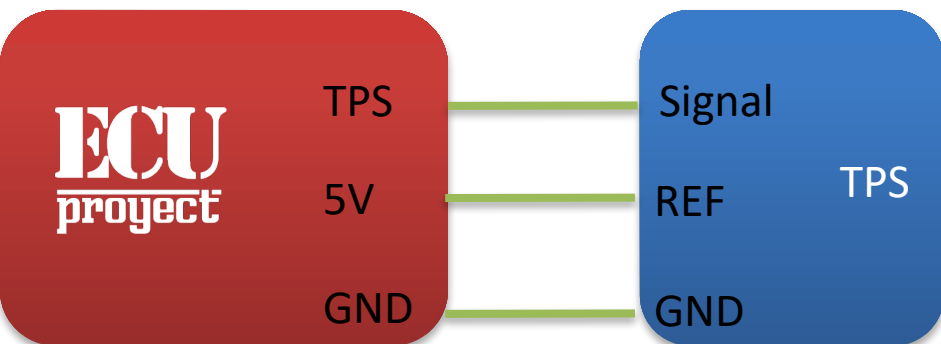
MAPconnection



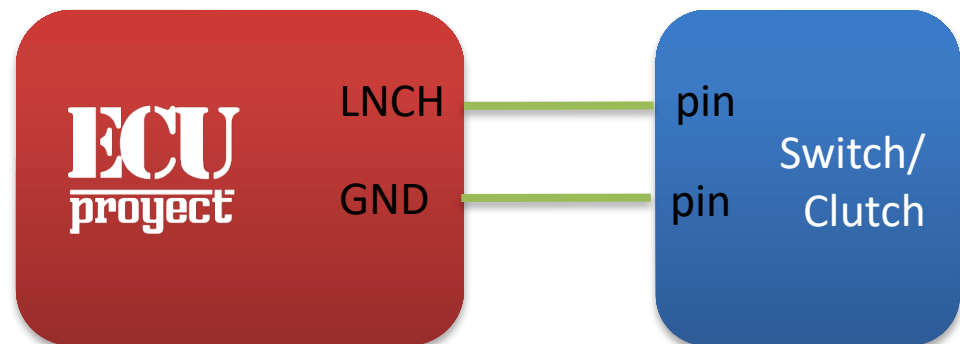
IAT or CLT connection



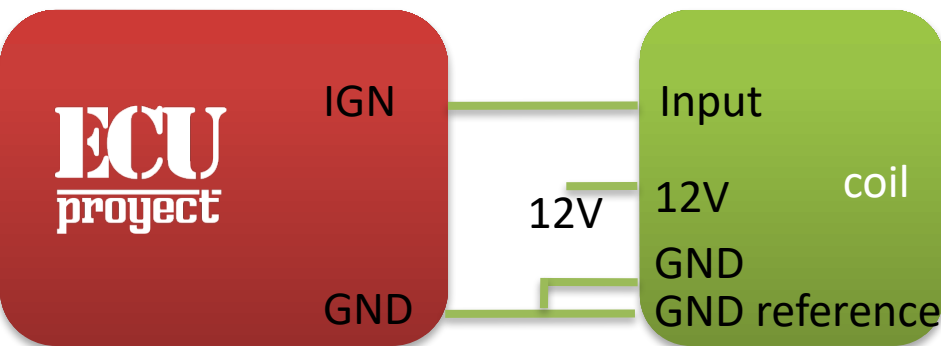
TPS connection



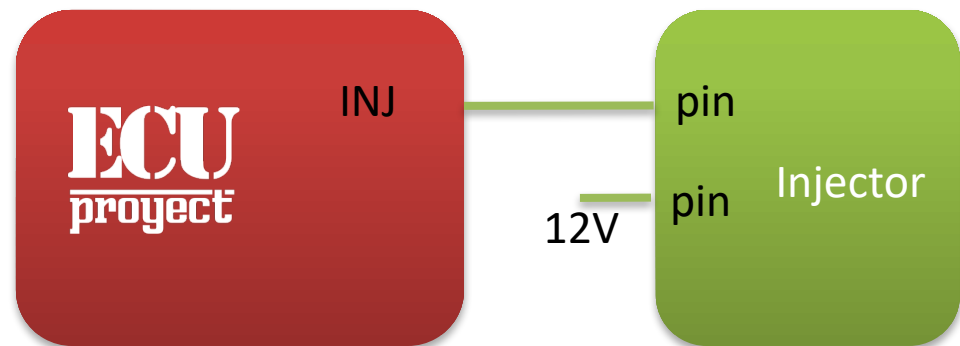
Launch Control Connection



Ignition Connection (Coil)



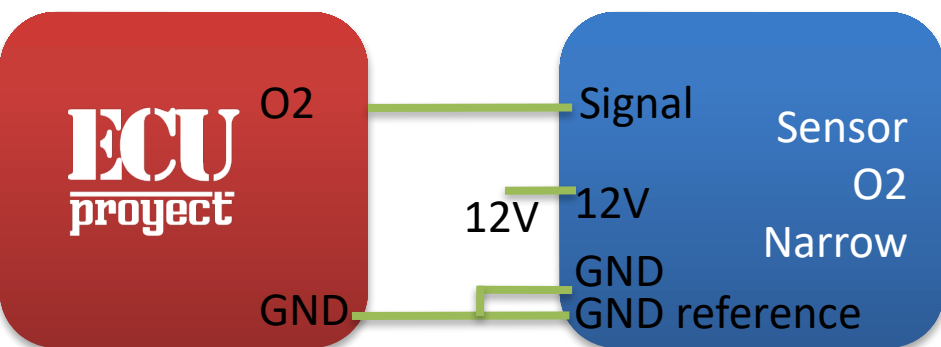
Injector connection



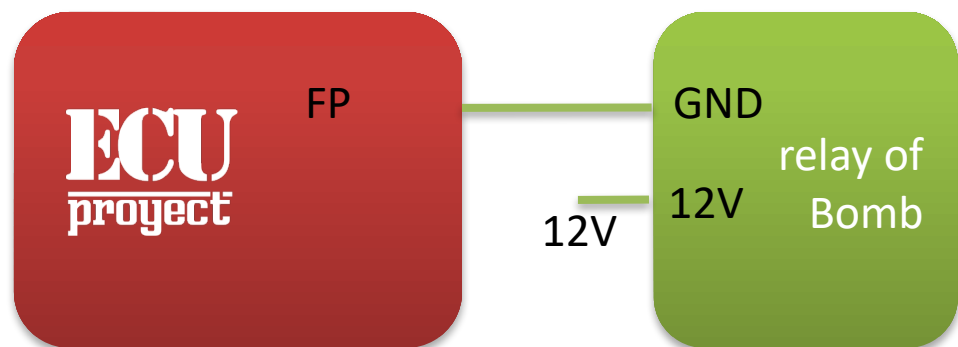
WIDEBAND connection (with gauge)



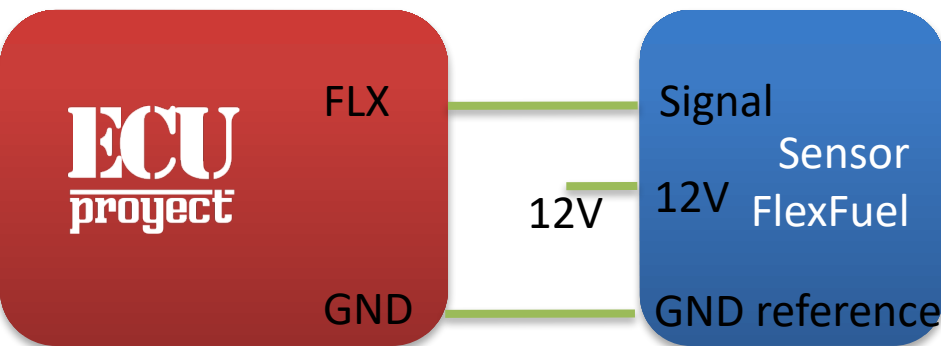
Narrowband O2 sensor connection



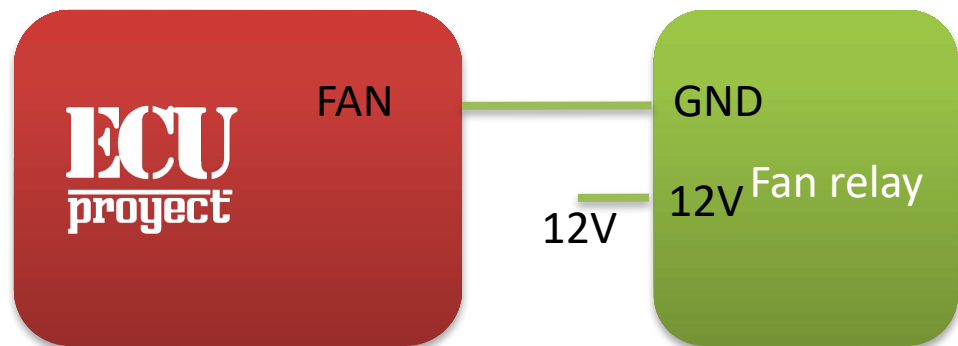
FP connection (with relay)



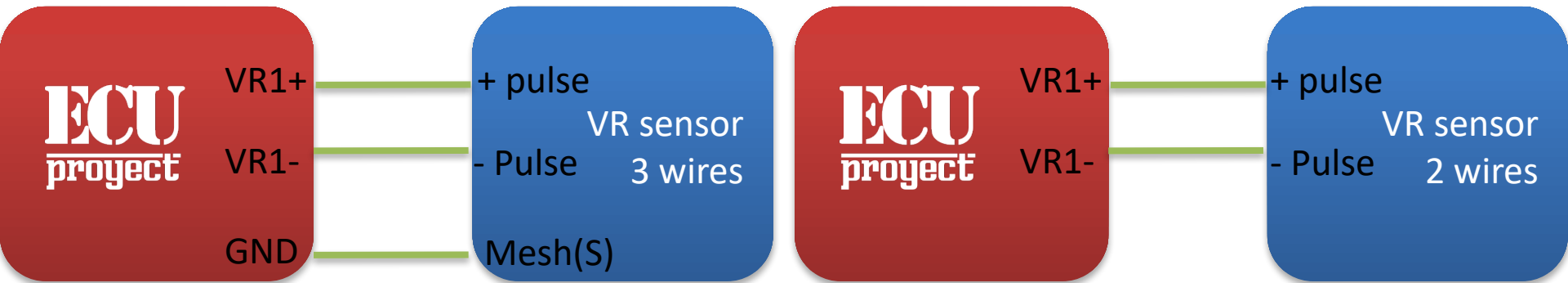
FlexFuel connection



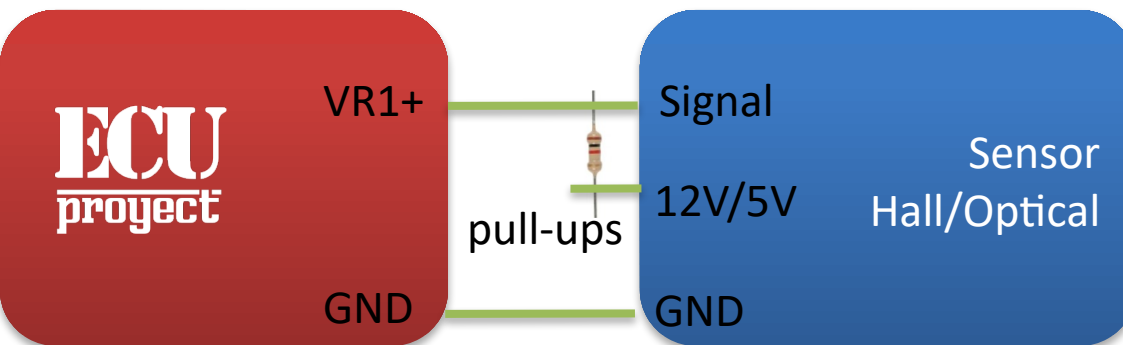
FAN connection (with relay)



VR Type CKP Sensor Connection

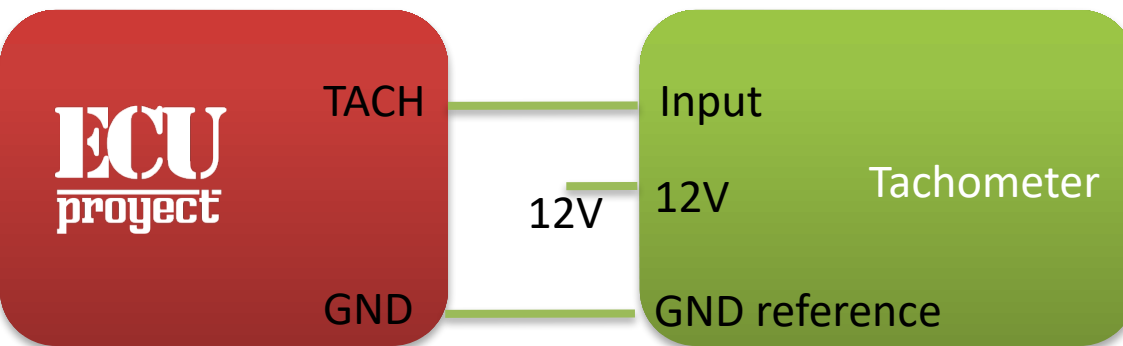


Hall/Optical CKP Sensor Connection



Pullup: Resistance from 1k to 10k. Not all Halls require Pullup (for example those of LS)

Tachometer Connection



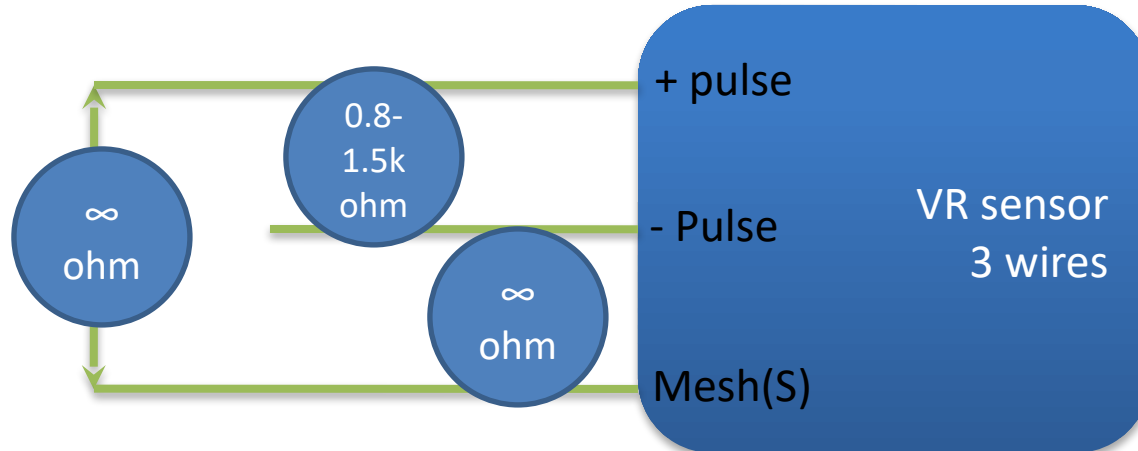
How to find the signals of my VR sensor

There are 2-wire and 3-wire VR sensors, in the case of the 2-wire ones it is easy to connect them, but for the 3-wire one there is confusion because we have a cable that has no signal and can cause failures.

To find which is the pair of signals, a multimeter is used to measure ohms.

Take a pair of pins and place the multimeter, if the resistance is infinite then we have that we are taking a signal pin and a mesh pin

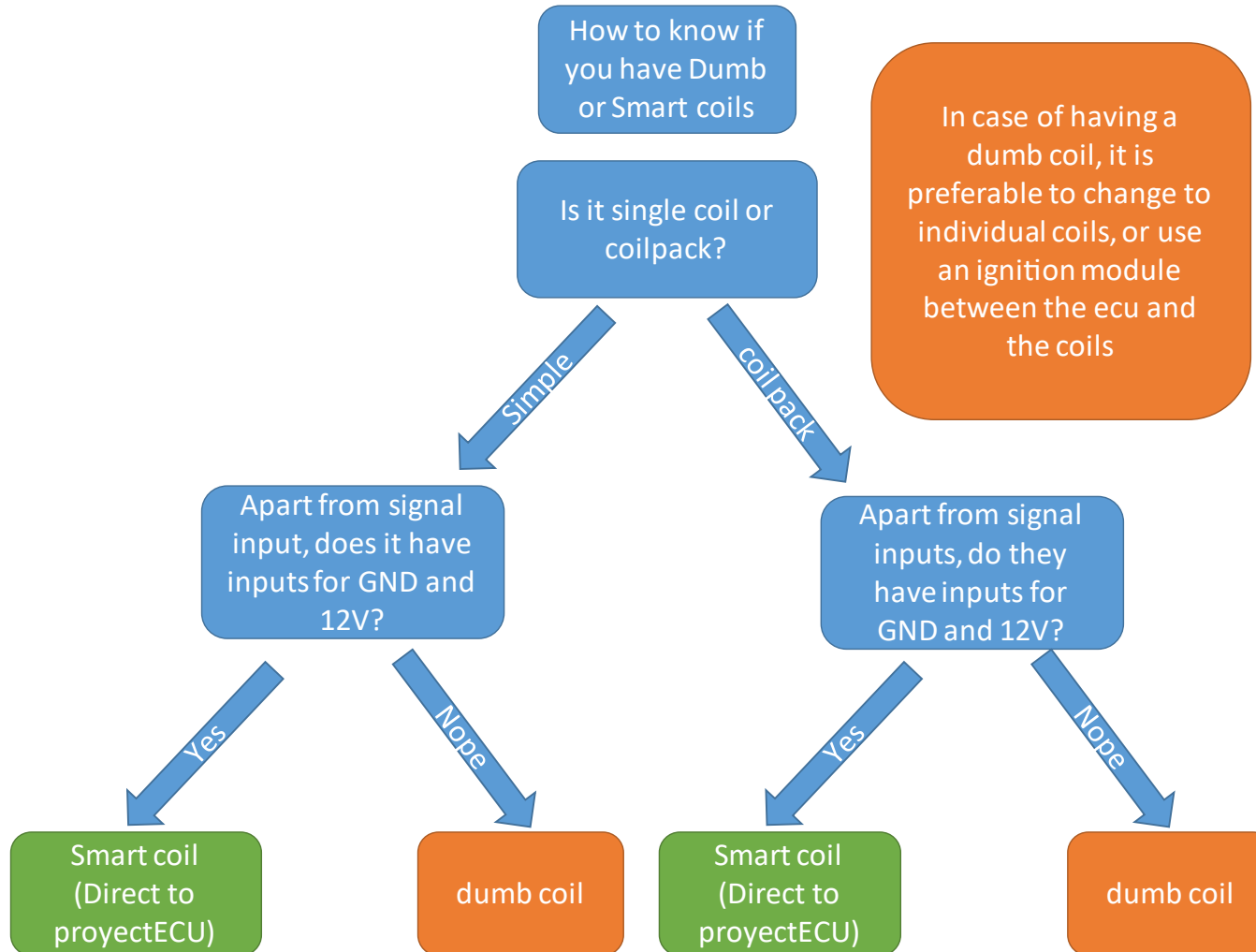
We change pins until it gives us a resistance between 0.8k ohm to 1.5k ohm.



coil types

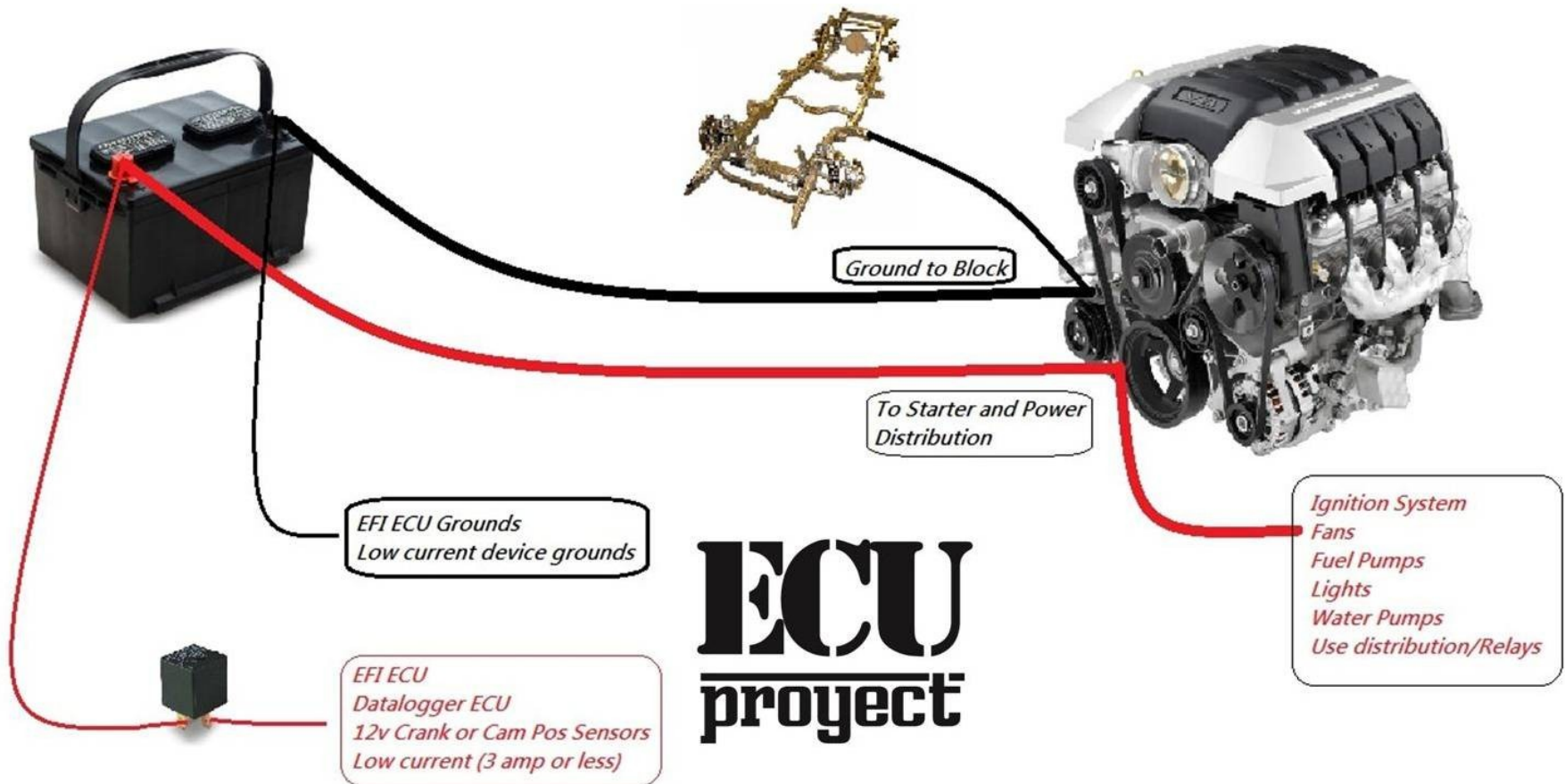
There are 2 types of coils, this small guide can indicate what type of coils we have.

In general it can be summed up that if the coil or coil pack has 12v and GND, it is a coil Smart, if it only has 12v OR GND (only one of the two) then it's Dumb coil.



Ground Connection

The ground connection is VERY important, a bad connection can cause loss of communication with the ECU, sensors with voltage variation, or even damage to the wiring.



WB-connection

Wideband analog signal connection exists in 2 ways depending on your wideband kit, here we show 2 examples taking WB aem:

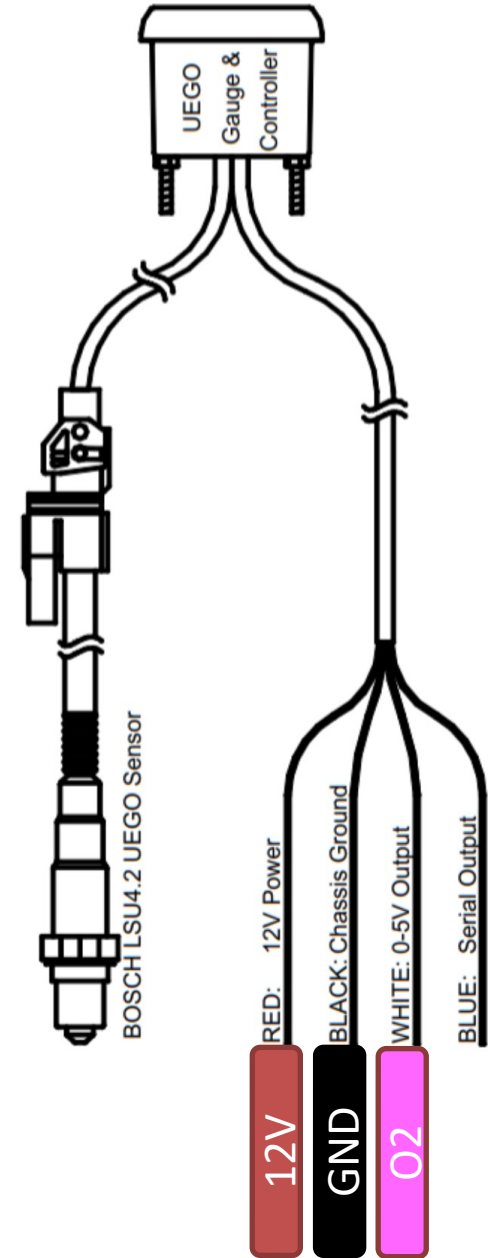
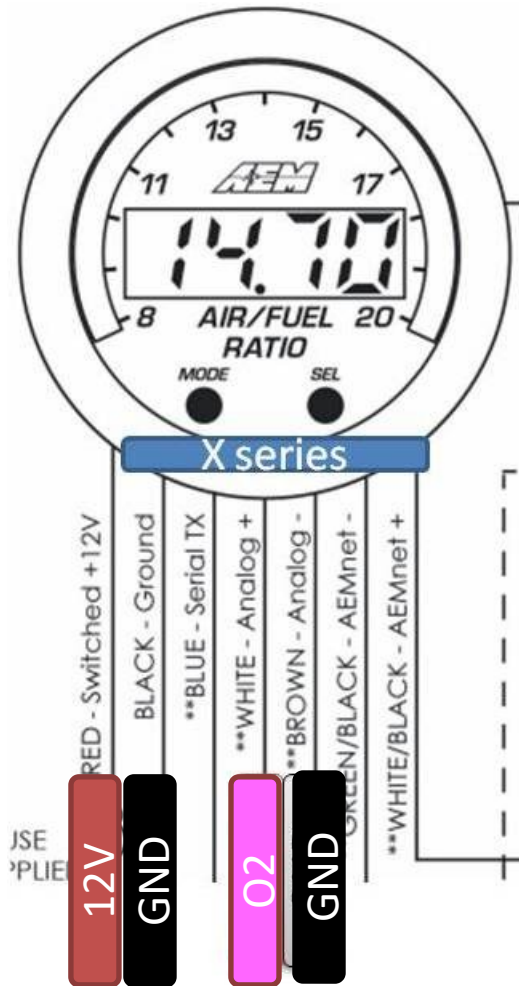
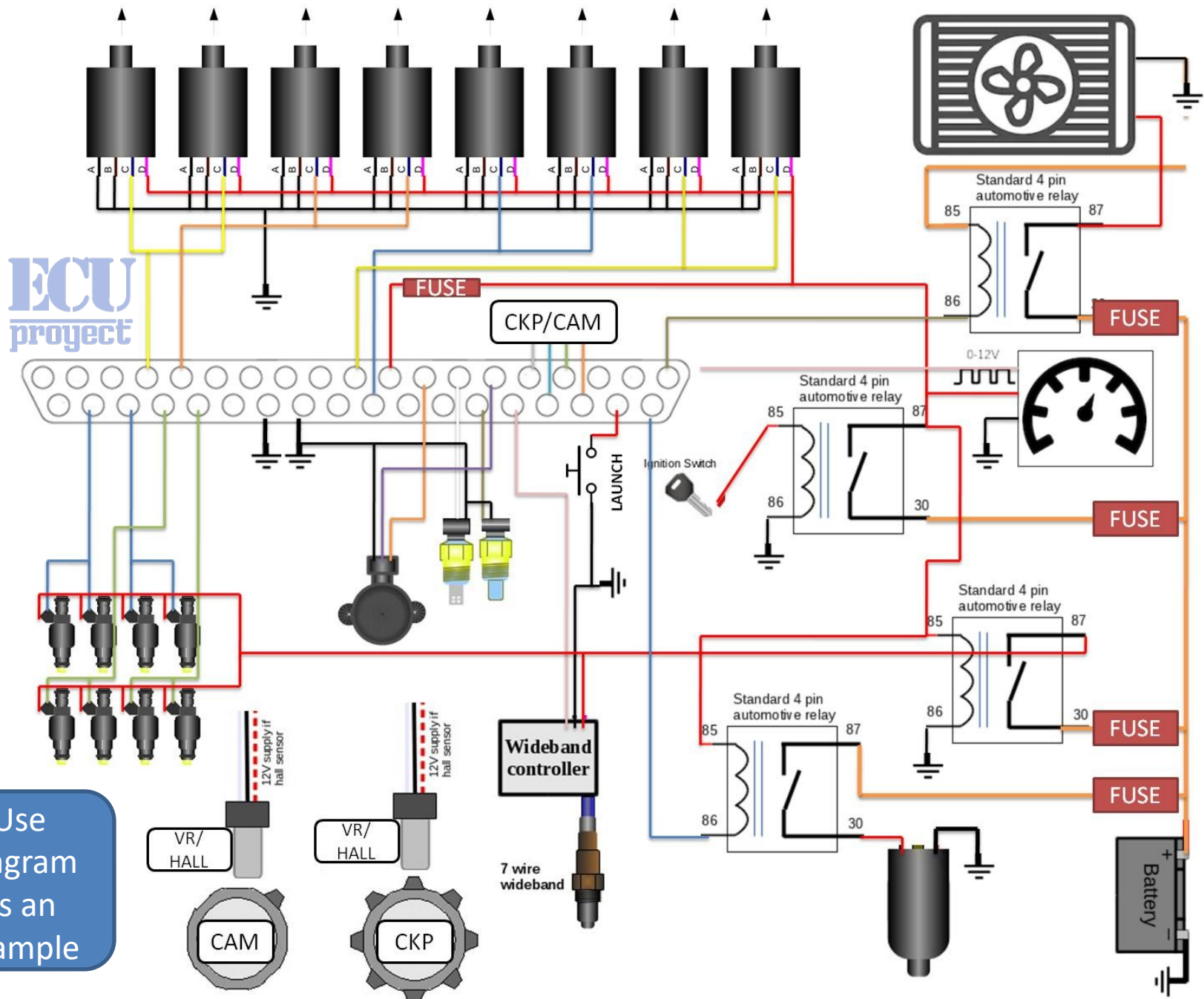
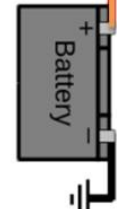
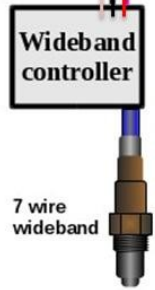
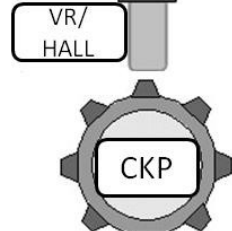
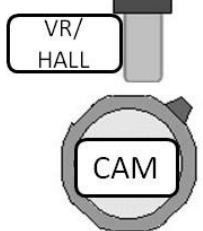


DIAGRAMA BASICO PROYECT ECU



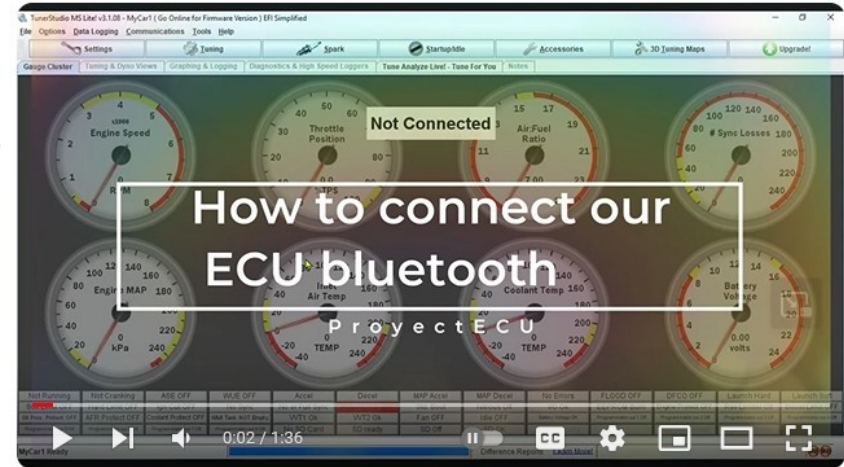
ECU
project

Use
diagram
as an
example

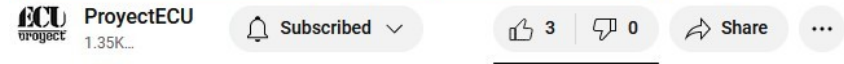


Primary Bluetooth (for configuring and programming)

1. Power on the ECU
2. Open Tunerstudio program in your windows laptop/PC, follow the instructions of the video tutorial: (<https://youtu.be/FPI0O8bKUbm>) “How to Connect to a Bluetooth ECU (like the Berserker)” the device name is “Tunerstudio”, the pin is: 1111

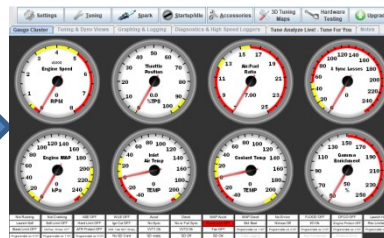


How to Connect to a Bluetooth ECU (like the Berserker)



ProjectECU

Program
Bluetooth



Available Video Tutorial:
ProjectECU.com/downloads

Tutorial how to connect to
ProjectECU Bluetooth from
cell/tablet

Primary Bluetooth (for dash data visualization)

Power on the ECU

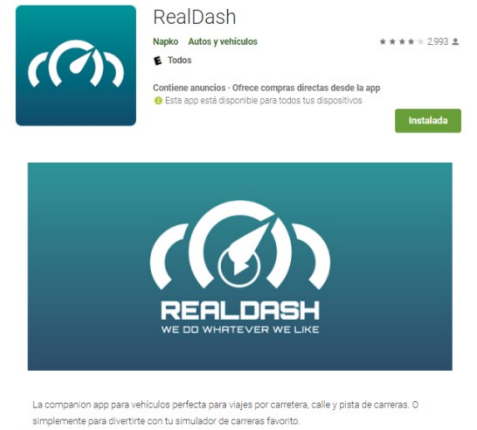
In the android device go to the bluetooth section, search and connect to the device "ProjectECU", the pin is: 1111

On the Android device go to the Play Store and search for "RealDash"

Install realdash APP

Once installed you have to open realdash and configure in your panel, Connections "ADD", Source "Speeduino", Type "Bluetooth", Bluetooth "ProjectECU", Settings "Serial 0" and DONE.

We can now enjoy data in Dash.



Available Video Tutorial:
ProjectECU.com/downloads

Tutorial how to connect to
ProjectECU Bluetooth from
cell/tablet

ProjectECU

visualize data
Bluetooth



Secondary Bluetooth use (if available)

Power on the ECU

In the android device go to the bluetooth section, search and connect to the device "ProjectECU", the pin is: 1111

On the Android device go to the Play Store and search for "RealDash"

Install realdash APP

Once installed you have to open realdash and configure in your panel, Connections "ADD", Source "Speeduino", Type "Bluetooth", Bluetooth "ProjectECU", Settings "Serial 3" and DONE.

We can now enjoy data in Dash.



Available Video Tutorial:
ProjectECU.com/downloads

Tutorial how to connect to
ProjectECU Bluetooth from
cell/tablet

