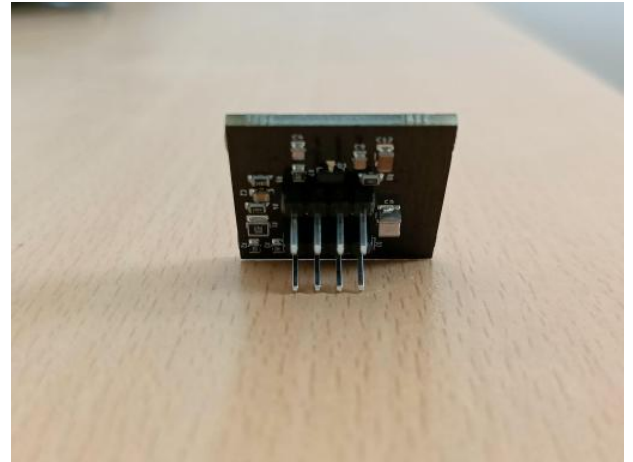


The JDM VR Conditioner is a special circuit we designed to work with 90s VR sensors found in JDM distributors. A VR Conditioner converts the AC signal coming from VR sensors to digital 5V DC which is required by the ECU. This signal is important because it determines the engine position and speed, thus opening the fuel injectors and creating ignition at the correct time.

Most electronic components are Automotive Certified (AEC-Q100/Q101/Q200). This is compatible with all PnPduino and Speeduino Boards. The latest version is v17.



APPLICATION

Some examples that are tested and confirmed working are:

- Honda's B,D,H distributors with 24 teeth as CKP, 4 teeth as TDC, and 1 tooth as CYP
- Toyota's 24+2 distributors found in 4AGE 20V, 4EFTE, 3SGTE, 7MG and 2JZ.

It might also work with other distributors like Mazda MX5 and Mitsubishi's 4G63 but future testing is to be completed.



Honda B/D Distributor



Toyota's 24+2

WIRING

For Honda Distributors:

CKPP to VR1+

CKPM to VR1-

CYPP to VR2+

CYPM to VR2-

For Toyota 24+2 Distributors:

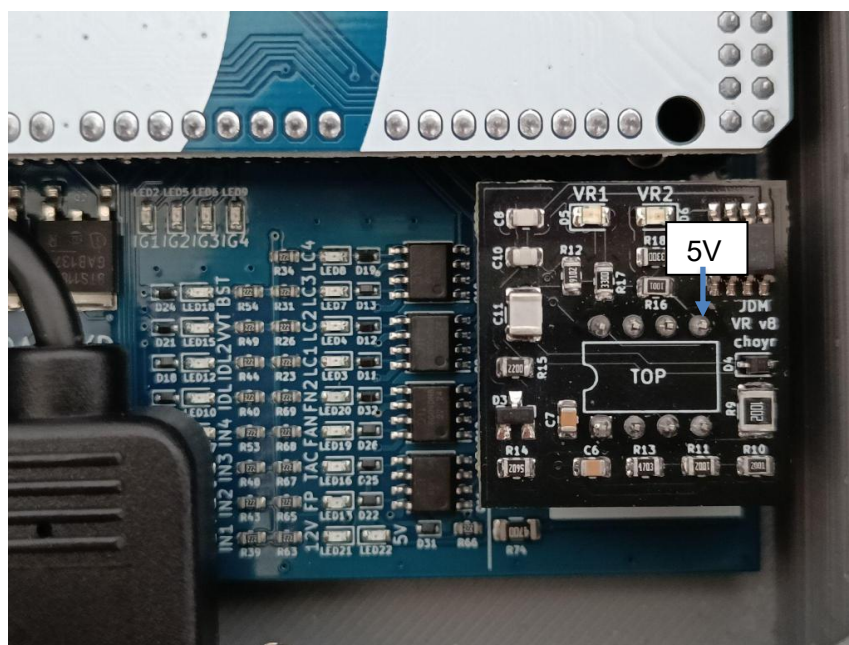
G1 to VR1- and VR2-

G- to VR2+

NE to VR1+

INSTALLATION

Proper installation is shown below. If the JDM VR Conditioner is installed wrong and powered, it can damage the components.

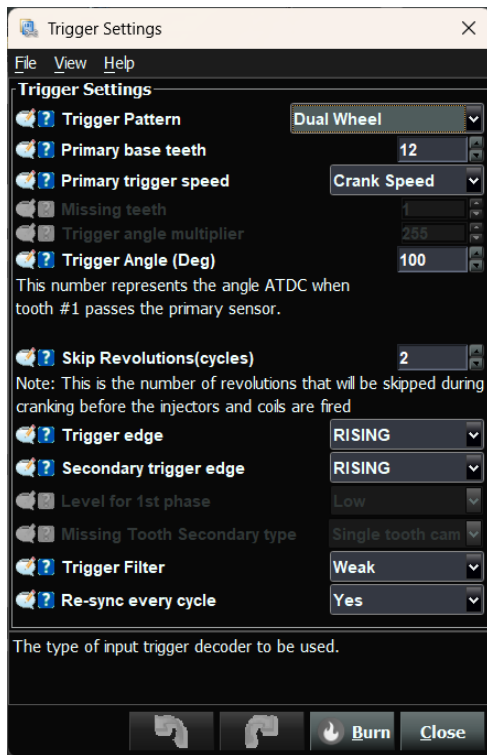


OPERATION

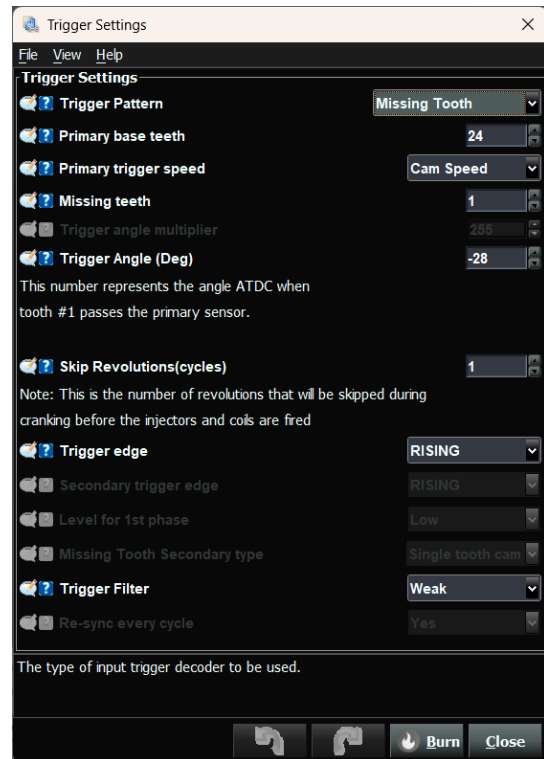
When the ECU is powered on while the JDM VR Conditioner is installed, both LEDs should be on. When the engine is cranking, the LED of VR1 will blink fast while the LED of VR2 will blink slower. You might not capture the LEDs blinking but you can use an oscilloscope to verify that the JDM VR Conditioner converts the signal properly.

TRIGGER SETUP

For Honda B and D:



For Toyota 4AGE 20V



For Honda B and D series, the trigger setup is almost the same.

The Toyota trigger setup shown above is for 4AGE 20V. Trigger Angle might be changed for different Toyota engines.

Make sure to use a timing light to sync the ignition timing of the ECU and the distributor's position.