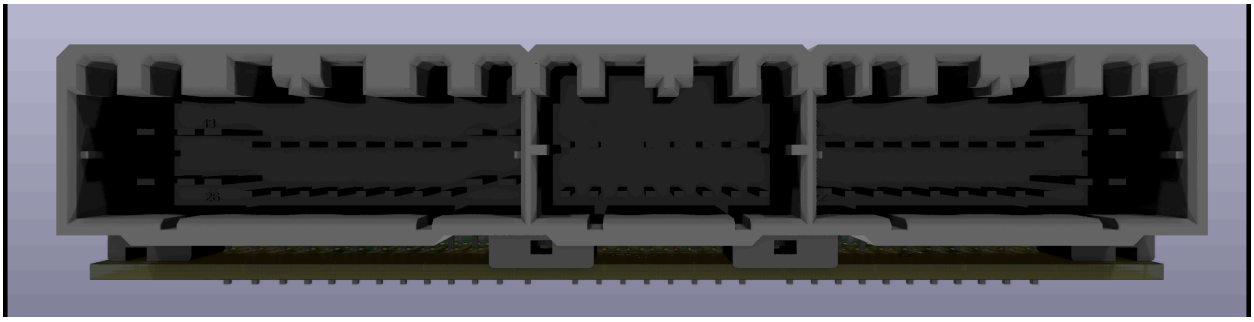
4AGE 20V Pinout

Unlike Honda's OBD1 pinout, Toyota's 4AGE 20V pinout does not have pin numbers. It also has 64 pins, with 26, 16 and 22 pins per plug. It is viewed from the front of the 64 Pin Male Connector.

PnPduino's 4AGE 20V pinout is the same as the OEM ECU with additional inputs and outputs. Some of these are the Coil on Plugs 2 to 4, extra Analog Inputs 1-7 and Low Current outputs. Red means it is not used by PnPduino, and Green means added by PnPduino.
The Arduino Pin # is used when configuring Programmable Outputs in Tunerstudio or when reusing a spare input or output.



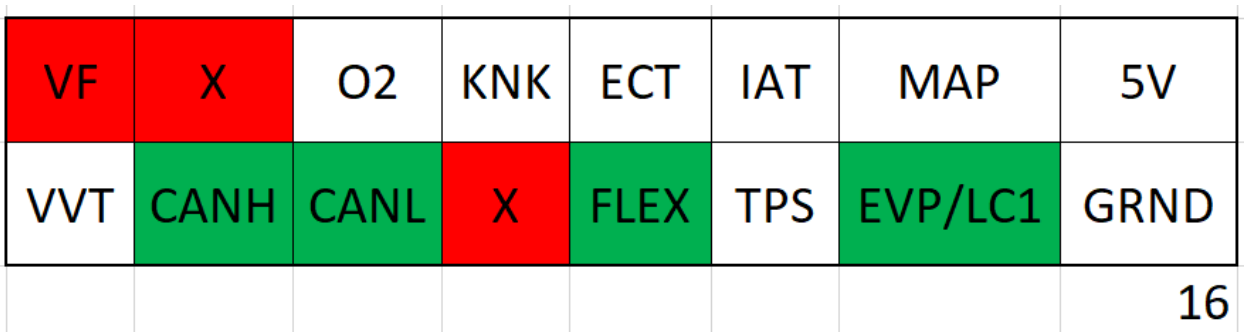
26 PIN

PG	INJ1	INJ4	IDL1	IDL2	HT	IG3	IG4	G2	NE	IGF	12V	12V
PG	INJ2	INJ3	X	LC3	LC2	IG1	IG2	G1	G-	FAN	GRND	GRND
												26

Label	Description	Remarks	Arduino Pin
PG	Power Ground	Used for Wideband Power Ground	
INJ1	Injector 1	*see notes below	
INJ2	Injector 2	*see notes below	
INJ3	Injector 3	*see notes below	
INJ4	Injector 4	*see notes below	
IDL1	Idle 1	Idle 1 output to RSO IACV	
IDL2	Idle 2	Idle 2 output to RSC IACV	
LC3	Low Current 3	Low Current 3 output	28
HT	Heater O2	To OEM O2 Sensor, not used	
LC2	Low Current 2	Low Current 2 output	27
IG1	Ignition 1	For IGT Distributor or Coil on Plug 1	
IG2	Ignition 2	**see notes below	
IG3	Ignition 3	**see notes below	
IG4	Ignition 4	**see notes below	
G2	2nd CAM	Not used	

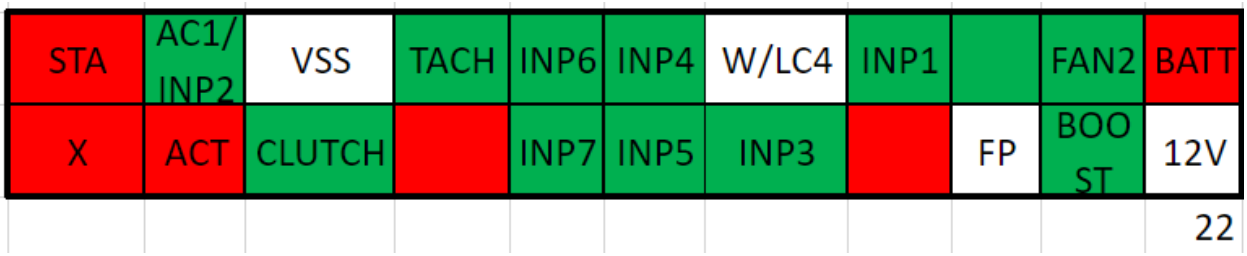
G1	1st CAM	Connected to VR1-	
NE	24T CAM	Connected to VR1+	
G-	CAM GRND	Connected to VR2+	
IGF	IG Feedback	Not used	
FAN	FAN	Radiator Fan	use Board Def
12V	12V	12V from Ignition Switch	
GRND	ECU Ground	Don't mix with Chassis Ground	

16 PIN



Label	**Description**	**Remarks**	**Arduino Pin**
VF	Check Connector	Not used	
VVT	VVT	VVT switch output	use Board Def
CANH	CANH	CAN Hi from STM32	
CANL	CANL	CAN Lo from STM32	
O2	Oxygen Sensor	Oxygen sensor input	
KNK	Knock Sensor	Knock input for future update	21
ECT	Coolant Temp	Engine Coolant Temperature Sensor	
FLEX	Flex Fuel Sensor	Ethanol Fuel Sensor	use Board Def
IAT	Inlet Air Temp	Inlet Air Temperature Sensor	
TPS	Throttle Pos	Throttle Position Sensor	
MAP	MAP	External Map Sensor	
EVP	EVAP/LC1	Low Current 1 Output	26
5V	5V	5V Out to sensors	
GRND	ECU Ground	Don't mix with Chassis Ground	

22 PIN



Label	Description	Remarks	Arduino Pin
STA	Starter	Not used	
AC1	AC Amp/INP2	AC switch to Spare Input 2	A9
ACT	AC Amp	Not used	
VSS	VSS	Vehicle Speed Sensor	20
CLUTCH	Clutch	for Launch Control	37
TACH	Tachometer	TACH out when using COP	use Board Def
INP6	Input 6	Spare Input 6	A12
INP7	Input 7	Spare Input 7	A13
INP4	Input 4	Spare Input 4	A11
INP5	Input 5	Spare Input 5	A6
W/LC4	CEL	Check Engine Light from Low Current 4	29
INP3	Input 3	Spare Input 3	A10
INP1	Input 1	Spare Input 1	A8
FP	Fuel Pump	Fuel Pump	use Board Def
FAN2	Fan 2	Spare Output	25
BOOST	Boost	Boost Control Solenoid	12
BATT	BATT	Not used, constant 12V	
12V	12V	12V from Ignition Switch	

- The ECU Ground, Sensor Ground and Power Ground are all connected through the ECU Ground, but never connect the Chassis Ground to ECU Ground. The chassis ground from the name itself is just a ground that is available throughout the chassis of the car. When connecting any sensor, use only Power or Sensor Ground, otherwise it will create noise and sync losses.
- The OEM Distributor wiring has a shield wire and this MUST be connected to ECU Ground. Most people are not checking this and if this shield wire is not connected to ECU Ground, sync losses will be created.
- *The injector connections from PnPduino to the actual injectors are INJ1 to injector 1(PnPduino), INJ2 to injector 4(PnPduino), INJ3 to injector 2(PnPduino) and INJ4 to injector 3(PnPduino) due to sequential injection.
- **When wiring Coil on Plugs, connect IG1 to COP1, IG2 to COP3, IG3 to COP4 and IG4 to COP2 due to sequential ignition.
- The AC1 (AC Switch) must be wired and working because it is used for IDLE UP when AC is on. If this is not wired and AC is turned on, the engine might turn off due to low rpm.
- The CAN Lo and CAN Hi are only available when using STM32-Mega Board by pazi. Remove any wires from that pin if CANBUS is not being used.