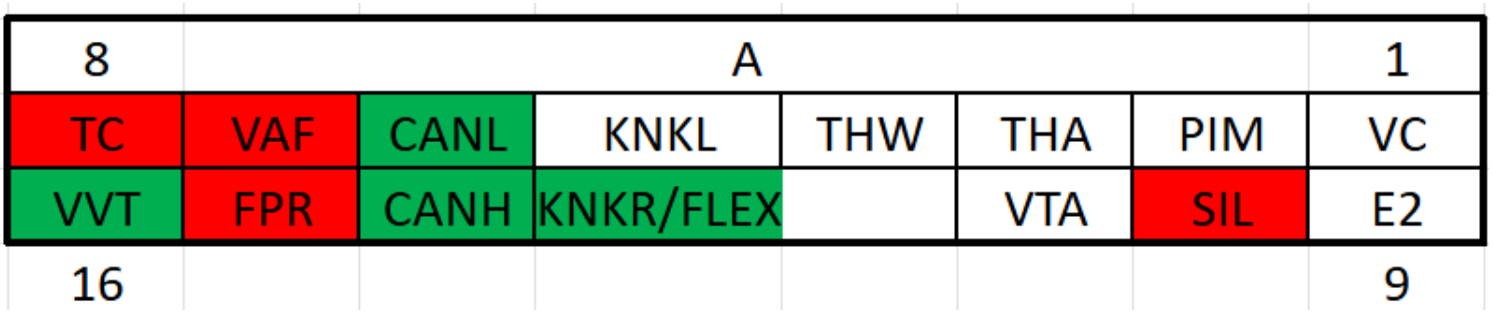
View In-Front of 64-Pin Plug Male Side of PnPduino 1FZFE Gen 3 Gulf Countries

LEGEND
BLACK = Original 1FZ Pinout being used GREEN = Additional from PnPduino
RED = Original 1FZ Pinout NOT being used

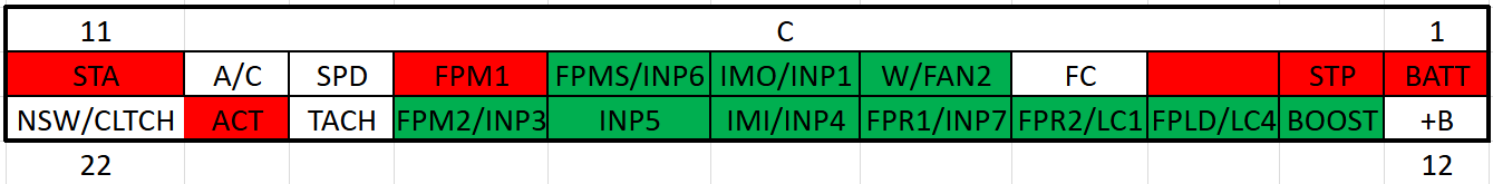
The OEM Pin assignment by Toyota is #1 on the top right of the male side of ECU going to the left. The B Plug is 26 pins, A Plug is 16 pins, and C Plug is 22 pins

13						B						1
E01	INJ1/5	INJ2/4	RSD	FAN		IGT1	IGT2	IGT3		IGF	12VF	IDL2
E02	INJ3/6	INJ4		LC3	LC2	IGT4	G2	NE+	NE-	12VF	GRND	E1
26												14

ECU Pin	1FZ Label	1FZ Description	PnPduino Connection	PnPduino Description	Tunerstudio Pin #	Remarks
B13	E01	Power Ground				
B26	E02	Power Ground				
B12	INJ1/5	Injector 1 and 5	INJ1	Injector 1	8	
B25	INJ3/6	Injector 3 and 6	INJ2	Injector 2	7	
B11	INJ2/4	Injector 2 and 4	INJ3	Injector 3	6	
B24			INJ4	Injector 4	5	
B10	RSD	Rotary ISCV	IDLE1	Idle 1	9	
B23						
B9			FAN	Radiator Fan	24	Not used by default
B22			LC3	Low Current 3	28	
B8						
B21			LC2	Low Current 2	27	
B7	IGT1	Igniter 1 and 5	IG1	Ignition 1	35	
B20			IG4	Ignition 4	34	Not used by default
B6	IGT2	Igniter 3 and 6	IG2	Ignition 2	36	Not used by default
B19	G2	CAM signal	VR2+	VR2+	18	from CAM Sensor
B5	IGT3	Igniter 2 and 4	IG3	Ignition 3	33	
B18	NE+	CRANK signal	VR1+	VR1+	19	from CRANK Sensor
B4						
B17	NE-	CAM/CRANK Ground	VR1-	VR1-		
B3	IGF	Ignition Confirmation				
B2 & B16			12VF	Fused 12V		Only for 12V Sensors
B15			GRND	Sensor Ground		Only for 12V Sensors
B1			IDLE2	Idle 2	10	Can be used for High Output
B14	E1	Engine Ground				



ECU Pin	1FZ Label	1FZ Description	PnPduino Connection	PnPduino Description	Tunerstudio Pin #	Remarks
A8	TC	Data Link				
A16			VVT	VVT	11	Can be used for High Output
A7	VAF	Variable Resistor				
A15	FPR	Fuel Pump Resistor				
A6			CANL	CAN Lo		If STM32 is used
A14			CANH	CAN Hi		If STM32 is used
A5	KNKL	Knock Sensor Left	KNOCK	Knock	21	Not used by default, for future use
A13	KNKR	Knock Sensor Right	FLEX	Flex sensor	2	Not used by default
A4	THW	Coolant Temperature	CLT	Engine Coolant Temp	A4	
A12						
A3	THA	Intake Air Temperature	IAT	Intake Air Temp	A5	
A11	VTA	Throttle Position Sensor	TPS	Throttle Position Sensor	A3	
A2	PIM	MAP sensor	MAP	MAP sensor	A0	
A10	SIL	Data Link				
A1	VC	5V Sensor Supply	5V	5V from ECU		Fused 5V to sensors
A9	E2	Sensor Ground				



ECU Pin	1FZ Label	1FZ Description	PnPduino Connection	PnPduino Description	Tunerstudio Pin #	Remarks
C11	STA	Starter Switch				
C22	NSW	Neutral Switch	CLUTCH	Clutch switch	37	
C10	A/C1	AC Amplifier	INP2	Input 2	A9	AC Switch to Idle Up
C21	ACT	AC Control				
C9	SPD	Vehicle Speed	VSS	Vehicle Speed	20	
C20	TACH	Tachometer Output	TACH	TACH Out	22	
C8	FPM1	Main Fuel Pump				Not used by default
C19	FPM2	Sub Fuel Pump	INP3	Input 3	A10	Not used by default
C7	FPMS	Fuel Tank Change Switch	INP6	Input 6	A12	Not used by default
C18			INP5	Input 5	A6	
C6	IMO	Immobilizer	INP1	Input 1	A8	
C17	IMI	Immobilizer	INP4	Input 4	A11	
C5	W	Check Engine Light	FAN2	Fan 2	25	Not used by default, for future use
C16			INP7	Input 7	A13	
C4	FC	Circuit Opening Relay	FP	Fuel Pump	23	
C15	FPR2	Sub Fuel Pump Relay	LC1	Low Current 1	26	
C14	FPLD	Sub Fuel Indicator Lamp	LC4	Low Current 4	29	
C2	STP	Stop Light				
C13			BOOST	Boost	12	Can be used for High Output
C1	BATT	Battery Constant 12V				Not used by default
C12	+B	Ignition +12V switched				Should be fused 12V supply to ECU

Please take note that Gen2 and Gen3 pinouts are different. Make sure to check the pinouts of your ECU and engine harness.

Wiring Diagram can be found from this link [1FZ-FE (1998.1 - 2000.7) | Electrical Wiring Diagram | OVERALL EL...]