

Open Air Valve Overview

Version: A  
Author: The Flamingo  
Status: Released  
Date: 04-11-2022

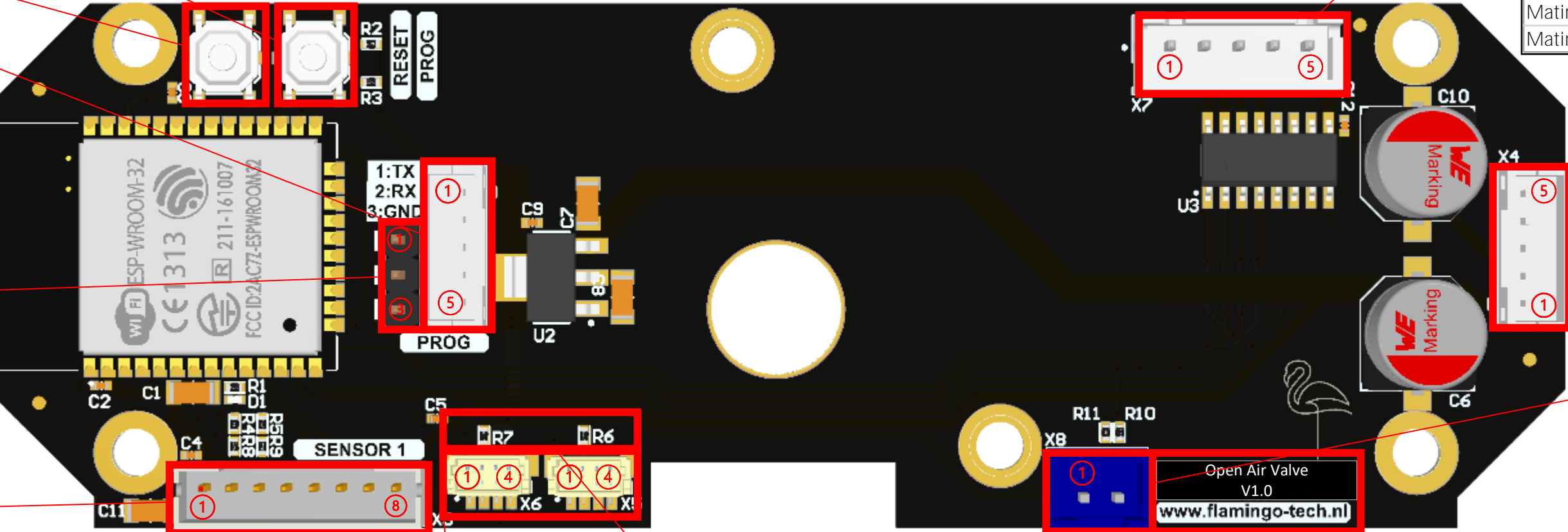
Switch:	Program Switch
	Used when programming the Open Air Valve
Function:	

Switch:	Reset Switch
	Used when programming the Open Air Valve and can
Function:	

Connector Name:	Program Connector 1	V1.0	V1.1 & Later
Manufacturer Part Number:	B5B-PH-K-S(LF)(SN)		
Manufacturer:	JST		
Pin 1 Function:	Tx=Warning 3.3V only!	NC	TX
Pin 2 Function:	Rx=Warning 3.3V only!	GND	RX
Pin 3 Function:		NC	NC
Pin 4 Function:		RX	GND
Pin 5 Function:		TX	NC
Mating Part Connector:	PHR-5		
Mating Contacts	SPH-002T-P0.5S		

Connector Name:	Program Connector 2	V1.0	V1.1 & Later
Manufacturer Part Number:	61300311121		
Manufacturer:	Wurth Electronics		
Pin 1 Function:	Tx=Warning 3.3V only!	GND	Tx
Pin 2 Function:	Rx=Warning 3.3V only!	Rx	Rx
Pin 3 Function:		Tx	GND
Mating Part Connector:	PHR-5		

Connector Name:	Program Connector 1		
Manufacturer Part Number:	B8B-PH-K-S(LF)(SN)		
Manufacturer:	JST		
Pin 1 Function:	3.3V Output		
Pin 2 Function:	I2C SCL (3.3V Only)		
Pin 3 Function:	I2C SDA (3.3V Only)		
Pin 4 Function:	GND		
Pin 5 Function:	GND		
Pin 6 Function:	UART TxD (3.3V Only)		
Pin 7 Function:	UART RxD (3.3V Only)		
Pin 8 Function:	5.0V Output		
Mating Part Connector:	PHR-5		
Mating Contacts	SPH-002T-P0.5S		



Connector Name:	Sparkfun QWIIC Connector
Manufacturer Part Number:	BM04B-SRSS-TB(LF)(SN)
Manufacturer:	JST
Pin 1 Function:	GND
Pin 2 Function:	3.3V OUT
Pin 3 Function:	SDA (3.3V Only)
Pin 4 Function:	SCL (3.3V Only)
Mating Part Connector:	PHR-5
Mating Contacts	SPH-002T-P0.5S
Notes:	The I2C Bus is shared with the sensor 1 Connector. Can be used to connect and test adafruit QWIIC products/sensors

Notes:	Remove R7 and R6 if you want to connect devices that have their own 3.3V power line. This will disable the 3.3v output from the QWIIC connector preventing damage and shorts.
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Version Number	V1.0	V1.1	V1.2
	Initial Release	Moved C8 & C7 to a different location	Changed name from Open Duco Valve to Open Air Valve
Change:		Changed Pinout from 2,54mm header connector	-
Change:	-	Moved R11 & R10 from the bottom of X8 to above the connector	

Open Air Valve Overview

Connector Name:	Motor Output Connector
Manufacturer Part Number:	B5B-XH-AM(LF)(SN)
Manufacturer:	JST
Pin 1 Function:	Coil 1
Pin 2 Function:	Coil 2
Pin 3 Function:	Coil 3
Pin 4 Function:	Coil 4
Pin 5 Function:	Common 12V
Mating Part Connector:	XHP-5
Mating Contacts	SXH-001T-P0.6

Connector Name:	Power Input Connector
Manufacturer Part Number:	B5B-PH-K-S(LF)(SN)
Manufacturer:	JST
Pin 1 Function:	5V Input
Pin 2 Function:	GND
Pin 3 Function:	12V Input
Pin 4 Function:	GND
Pin 5 Function:	GND
Mating Part Connector:	PHR-5
Mating Contacts	SPH-002T-P0.5S

Connector Name:	Home Swich Input
Manufacturer Part Number:	B2B-XH-A(LF)(SN)
Manufacturer:	JST
Pin 1 Function:	3.3V Output
Pin 2 Function:	ESP-32 IO
Mating Part Connector:	XHP-2
Mating Contacts	SXH-001T-P0.6