Hiveboard.ca

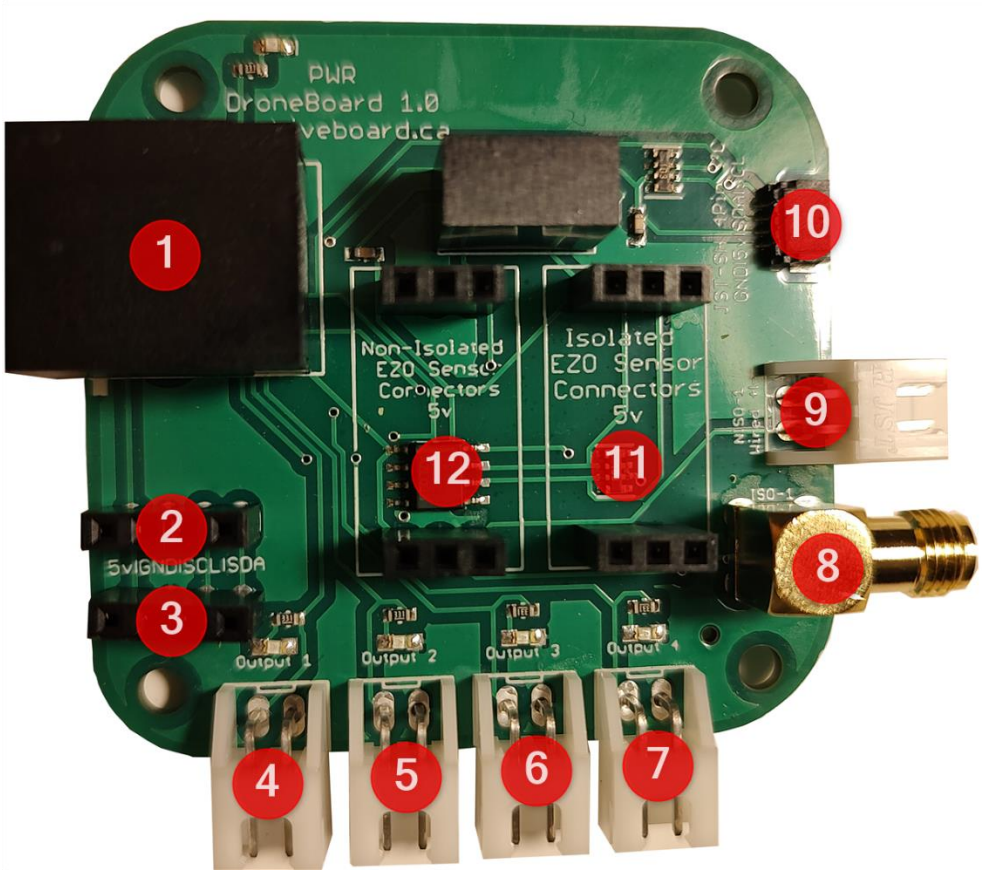
DroneBoard

Version 1.0

3-11-2023

Contents

DroneBoard Layout



1. HiveBoard Connection
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The DroneBoard is designed to be connected to the HiveBoard through the DroneBoard connectors. It can also be used as a mini EZO™ sensor holder. To do this one needs to provide power through the I^2C connections.

DroneBoard Wiring

HiveBoard Connector

Labelled as #1 on the DroneBoard Layout diagram

One can use a standard ethernet cable to connect the DroneBoard to the HiveBoard. If one is making their own breakout board, the wiring of the Drone connectors is as below. All outputs run at ~9.5V when connected to the HiveBoard

1. SCL	5. 5V
2. Output 4	6. Output2
3. SDA	7. GND
4. Output3	8. Output 1

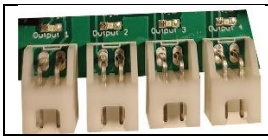
I²C Connectors

Labelled as #2-#3 on the DroneBoard Layout diagram

	Wired as 5V/GND/SCL/SDA

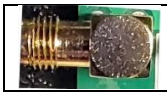
Drone Outputs

Labelled as #4-#7 on the DroneBoard Layout diagram

	Wired as (VDD/GND) Each output has a LED that activates when turned on

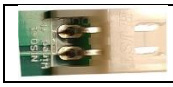
Isolated EZO™ Sensor Connector

Labelled as #8 on the DroneBoard Layout diagram

	Standard SMA connector

Non-Isolated EZO™ Connector

Labelled as #9 on the DroneBoard Layout diagram

	Wired as (VDD/GND)

JST-SH Connector

Labelled as #10 on the DroneBoard Layout diagram

	Wired as (SDA/SCL/5V/GND)

Isolated EZO™ Sensor Connector

Labelled as #11 on the DroneBoard Layout diagram

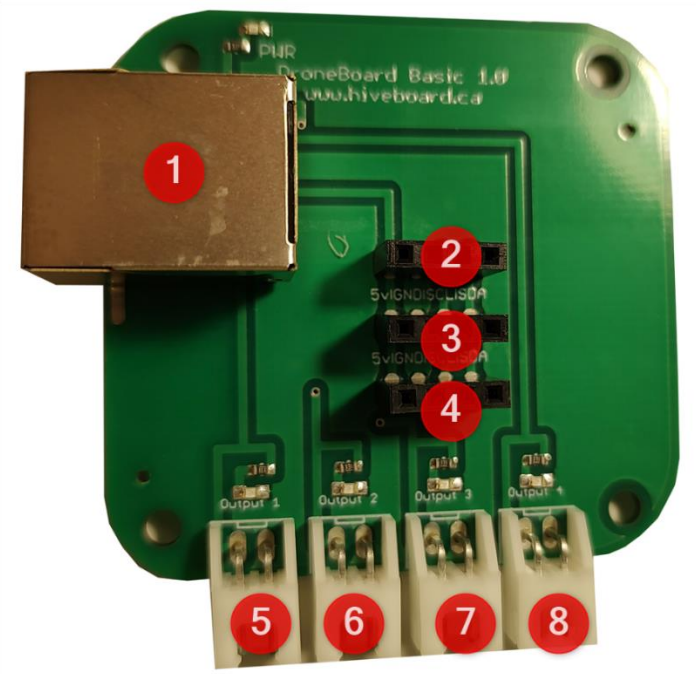
	Runs at 5v Designed For: Atlas Scientific EZO™ pH Sensor Atlas Scientific EZO™ ORP Sensor Atlas Scientific EZO™ Electrical Conductivity Sensor Atlas Scientific EZO™ Dissolved Oxygen Sensor Atlas Scientific EZO™ Temperature Sensor Atlas Scientific EZO™ Flow Totalizer

Non-Isolated EZO™ Connector

Labelled as #12 on the DroneBoard Layout diagram

	Runs at 5v Designed For: Atlas Scientific EZO™ Temperature Probe Atlas Scientific EZO™ Flow Totalizer

DroneBoard Basic Layout



1. Connection from HiveBoard
   2-4. I2C Connection
   5-8. Drone Outputs

DroneBoard Basic Wiring

HiveBoard Connector

Labelled as #1 on the DroneBoard Basic Layout diagram

One can use a standard ethernet cable to connect the DroneBoard to the HiveBoard. If they are making their own breakout board, the wiring of the Drone connectors is as below. All outputs run at ~9.5V when connected to the HiveBoard

1. SCL	5. 5V
2. Output 4	6. Output2
3. SDA	7. GND
4. Output3	8. Output 1

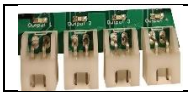
I2C Connector

Labelled as #2-#4 on the DroneBoard Basic Layout diagram

	Wired as 5V/GND/SCL/SDA

Drone Outputs

Labelled as #5-#8 on the DroneBoard Basic Layout diagram

	Wired as (VDD/GND)