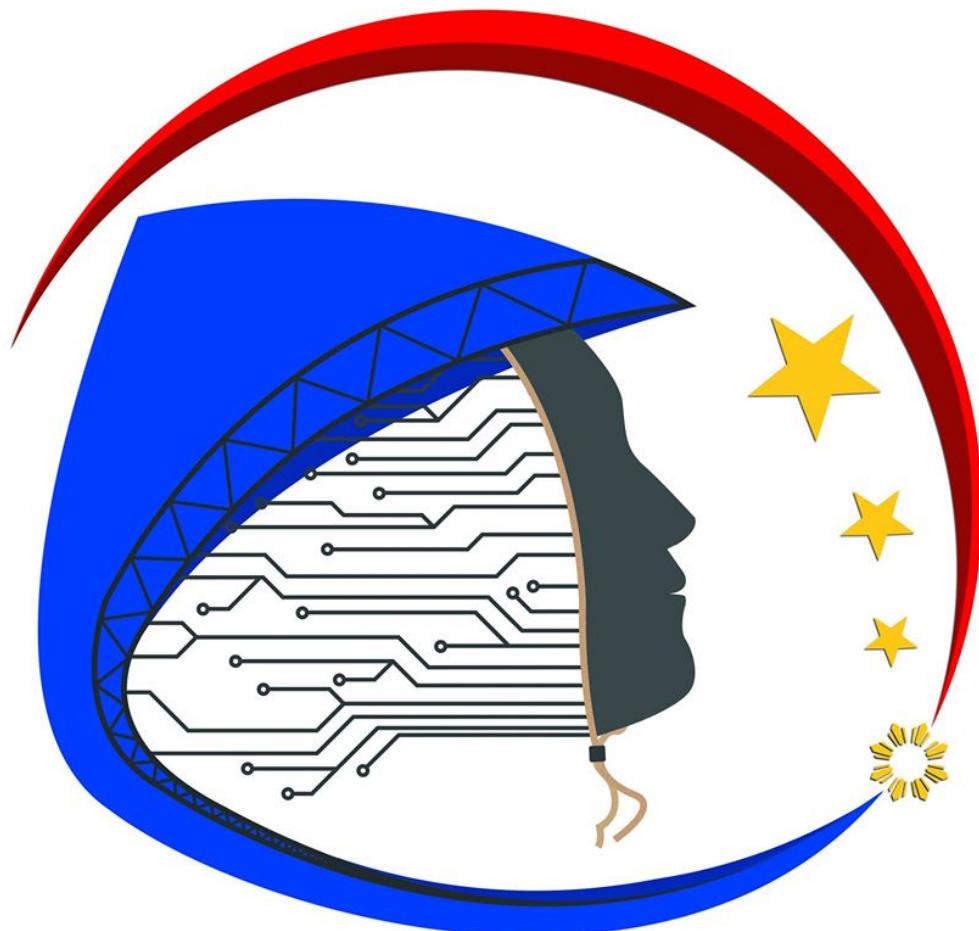
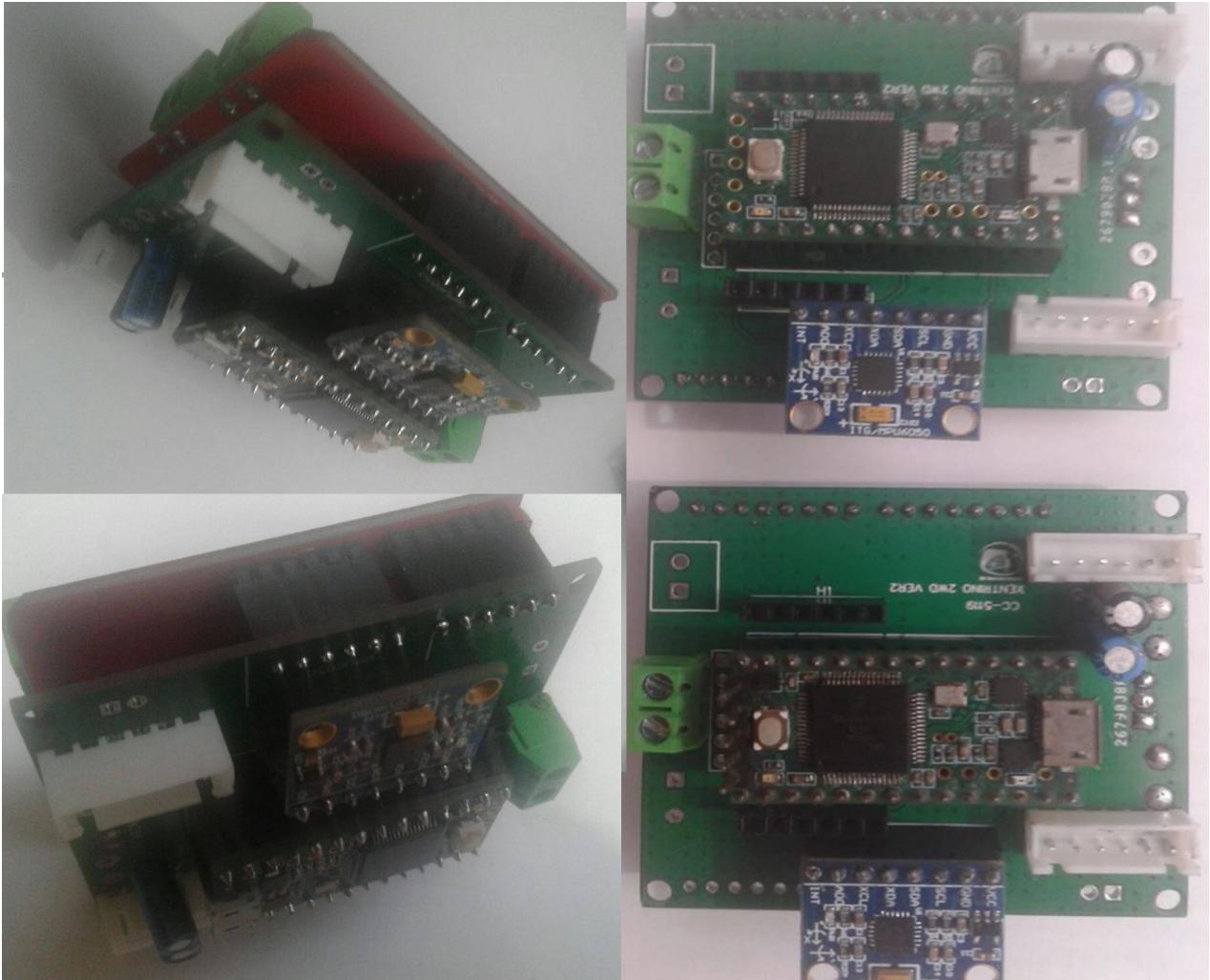


XENTRINOBOT BOARDS  
2 WD Version



# Hi-Techno Barrio

Distributed by:  
[Xentrino Tech](#)



### **DESCRIPTIONS:**

Xenrtrinobot Board is suitably design to drive wheeled mobile robots. The board contains a complete electronic modules that can be used to program and control robots. The 2WD version include microcontroller, inertial measurement unit sensors (IMU) and motor controller. There are extra IOs pins included in the header port which can be used as external interface , i,e LCD,LDR, relays and etc.

The board was developed as an all in one electronic module , the purpose of a compact dauther board is to avoid time consuming messy circuits. Hence, this supports as a controller board for the hobbyists, enthusiast to build mobile robots as quick as possible. Ultimately the purpose is to involved roboticist in the academe, research and development sectors in the application of Robotic Operating System.

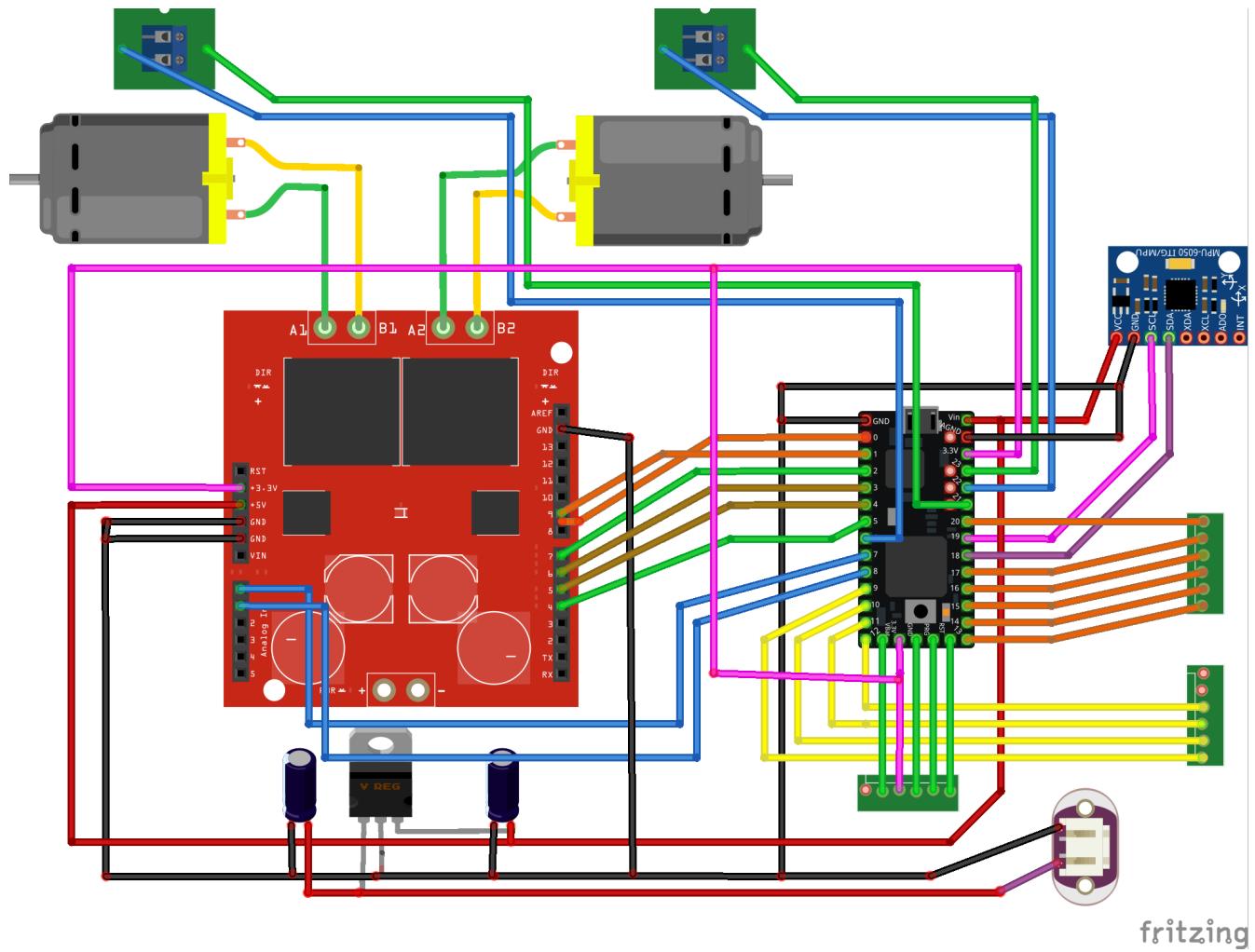
The board define the means of simplifying difficulty in the hardware setup experienced by benthusiast who want to build robots using ROS. Also the selected electronic modules are readily and locally available and the selected hardware is cost effective.

## FEATURES:

- Teensy 3.20
- Monster Moto Shield
- MPU6050/GY-85

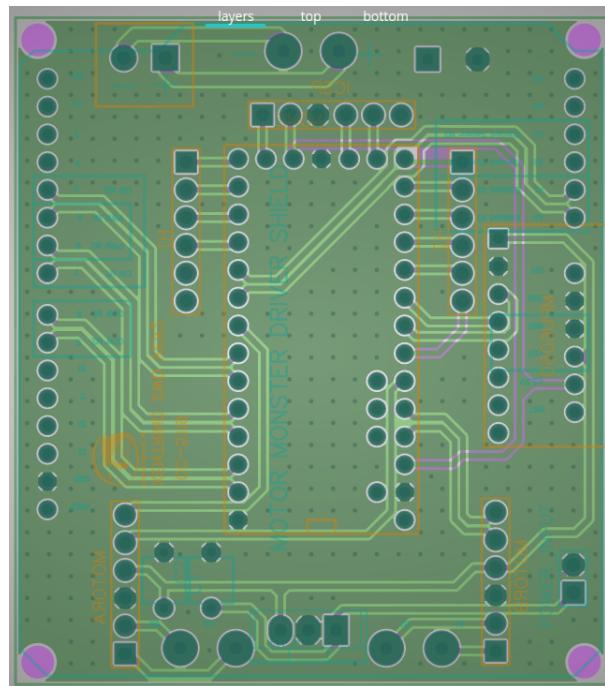
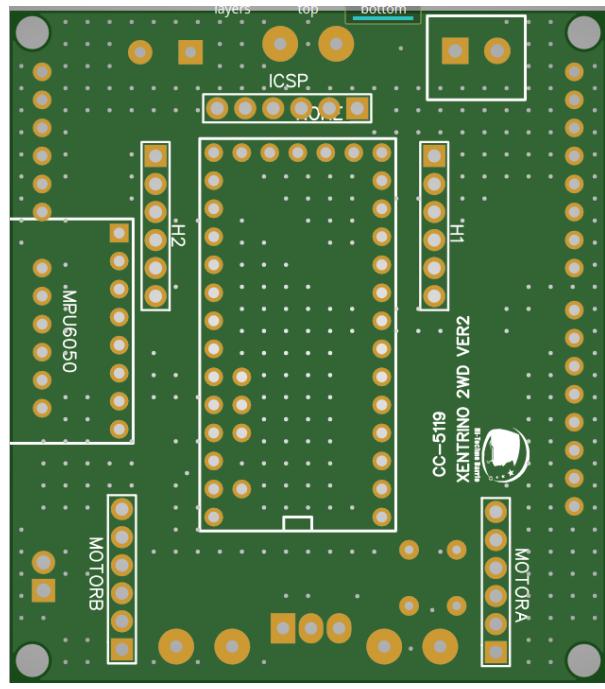
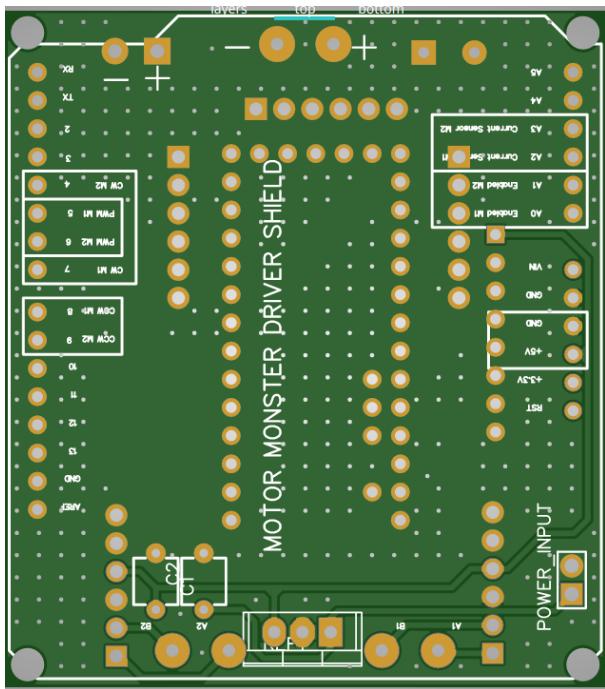
## DOCUMENTATIONS:

Schematic



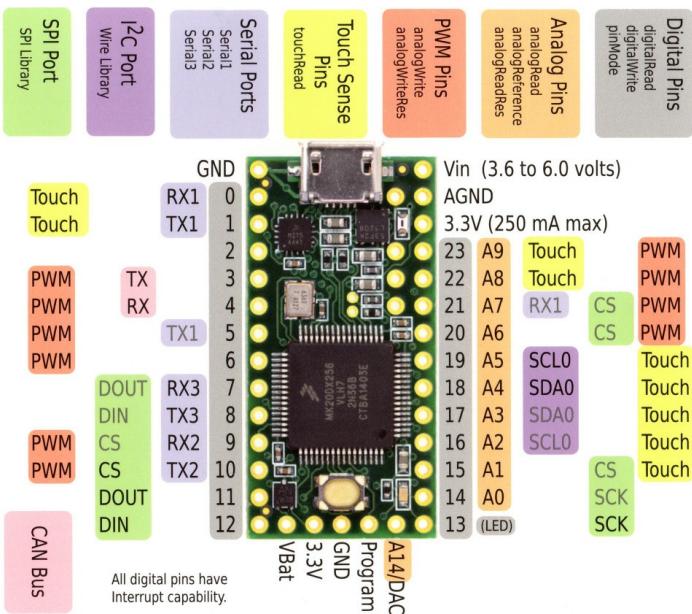
fritzing

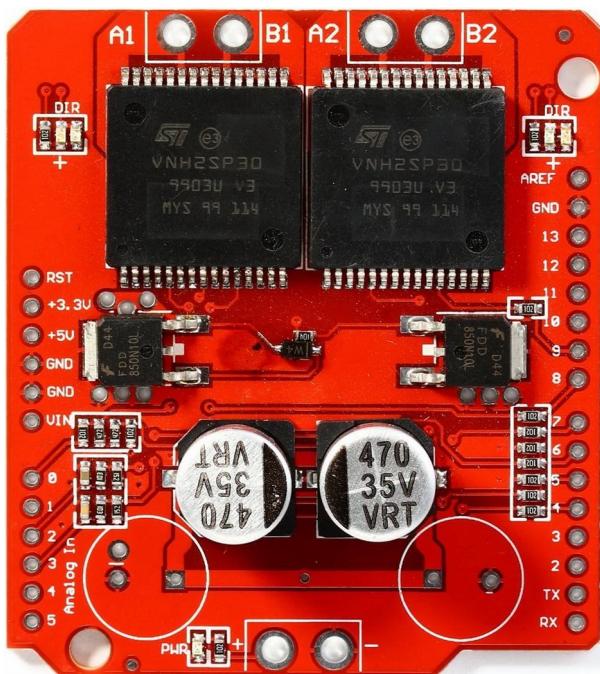
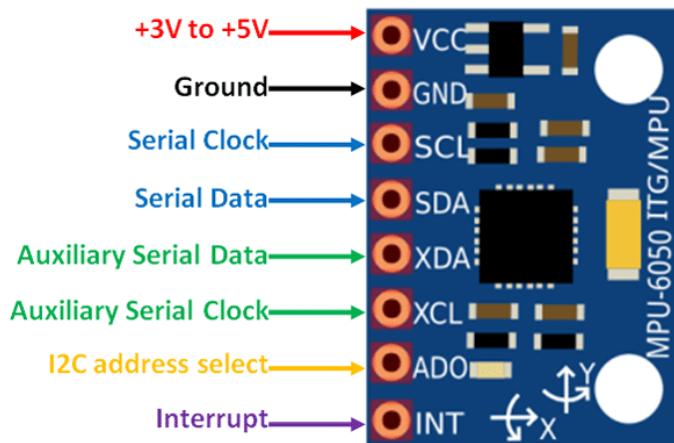
## Gerber Block Diagram



## Graphical Datasheet

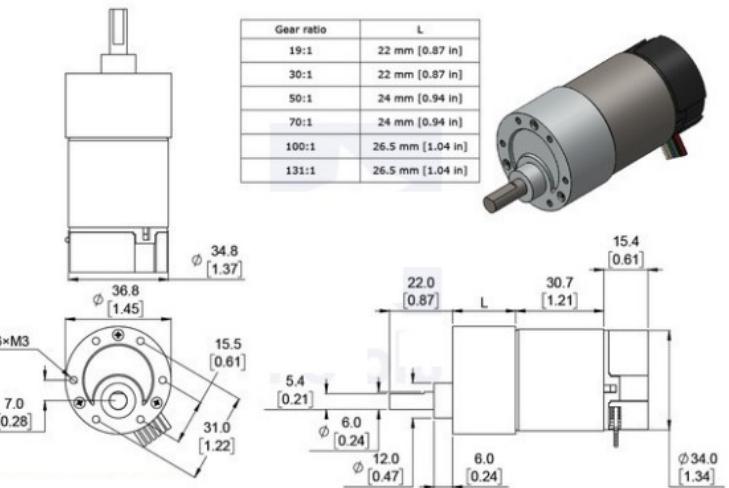
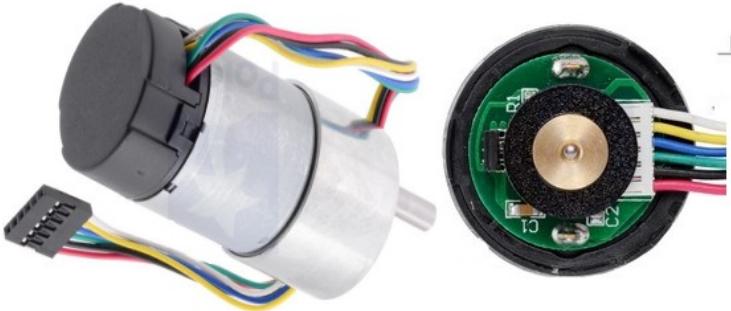
Category	Pin	Description	ENC1	ENC2	DUAL-1	MPU6050	Header-1
3.20		GND		GND			
		RESET					
		D0					
		D1					
		D2		P_1			
		D3		P_2			
		D4		EN			
		D5	ENC1				
		D6	ENC2				
		D7		ENC3			
		D8		ENC4			
		D9		1A			
		D21			SCA		
		D20			SDA		
		D10		1B			
		D11		2A			
		D12		2B			
		D13					
		A0				1	
		A1				2	
		A2				3	
		A3				4	
		A4				5	
		A5				6	
		EV3					
		AREF					
		GND					
		VIN					
MOTOR1				M1			
				M2			
MOTOR2				M3			
				M4			
MOTOR-1							
M1	M2	GND	VCC	ENC1	ENC2		
MOTOR-2							
M3	M4	GND	VCC	ENC3	ENC4		
MPU6050							
VCC	GND	SCL	SDA				
HEADER -2							
VCC	GND	EV3	VIN	D1	D0		
HEADER -1							
A0	A1	A2	A3	A4	A5		
HEADER -3							
VCC	GND	EV3	AREF	RESET	D13		





No.	Colour	Description
VCC	Red	Power Supply
GND	Black	Ground
A0	Brown	Enable for motor 1
A1	Dark Green	Enable for motor 2
A2	Purple	Current sensor for motor 1
A3	Yellow	Current sensor for motor 2
D7	Cyan	Clockwise for motor 1
D8	Light Purple	Counterclockwise for motor 1
D4	Green	Clockwise for motor 2
D9	Blue	Counterclockwise for motor 2
D5	Dark Blue	PWM for motor 1
D6	Olive Green	PWM for motor 2

Color	Function
Red	motor power (connects to one motor terminal)
Black	motor power (connects to the other motor terminal)
Green	encoder GND
Blue	encoder Vcc (3.5 – 20 V)
Yellow	encoder A output
White	encoder B output



## Datasheet

Monster Moto  
MPU6050  
Teensy 3.20

GitHub:  
<https://github.com/hi-techno-barrio/XentrinoBot-BOARD>

## APPLICATION SETUP

