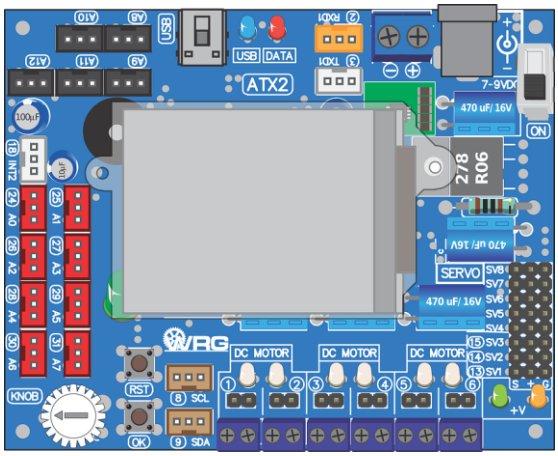
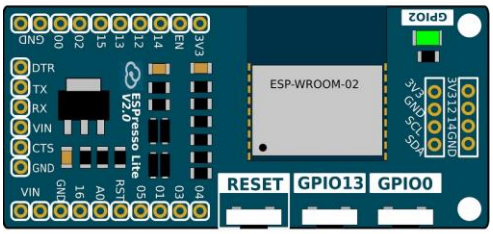
ATX2 vs ESPresso Lite V2

Comparison and Review

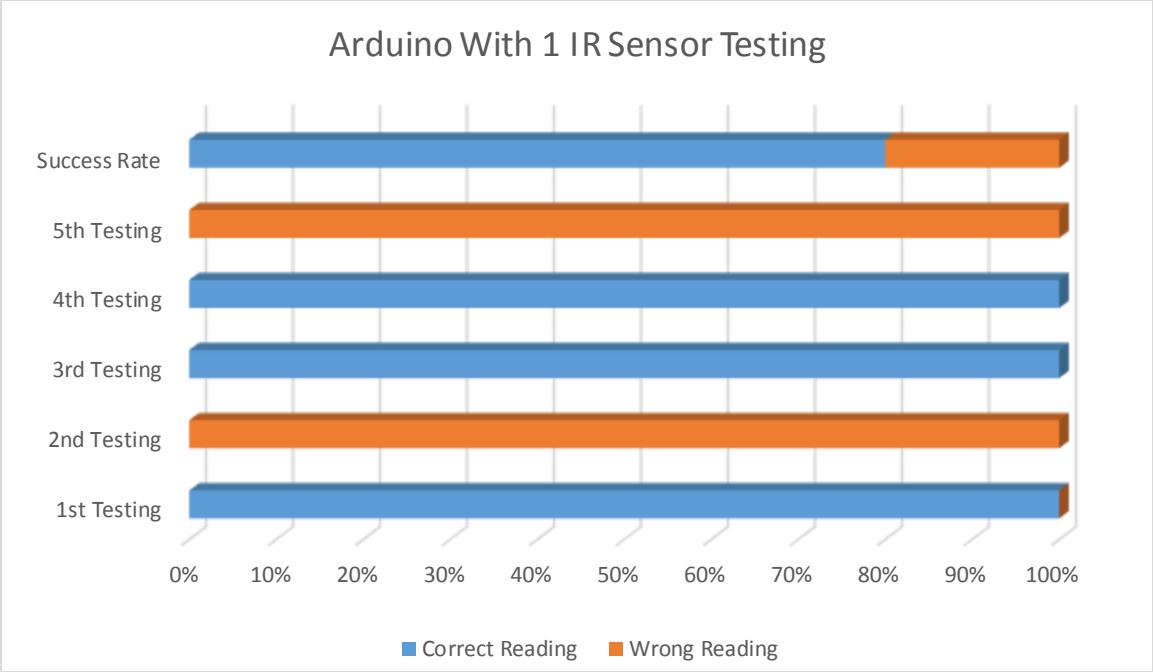




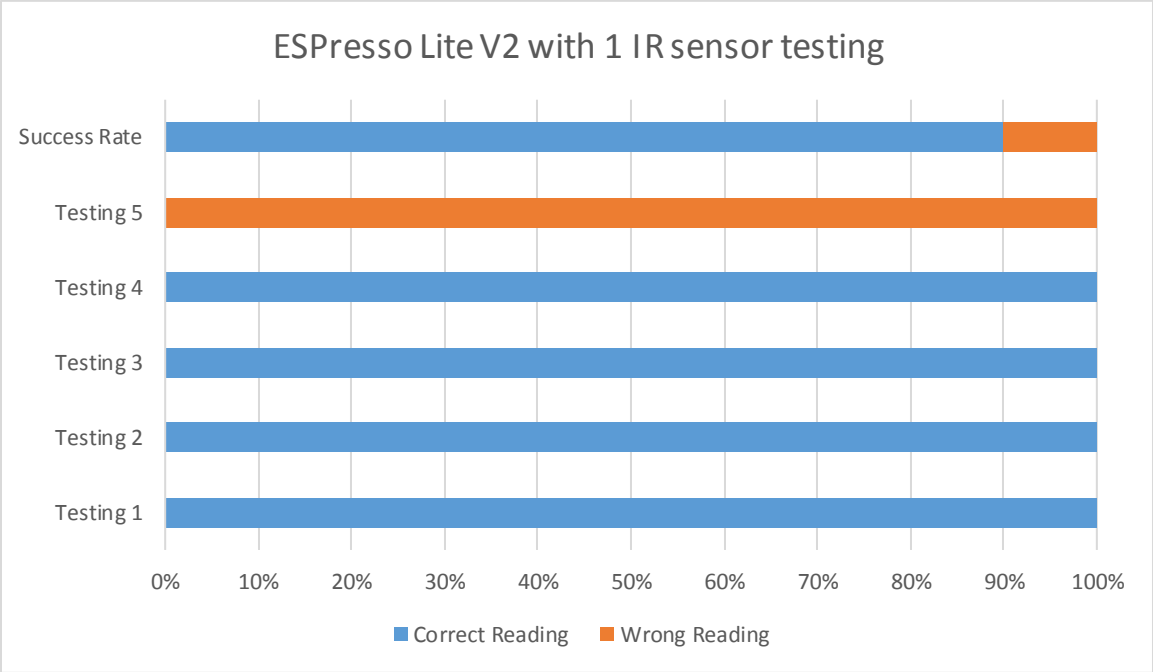
Specs	ATX2	ESPresso Lite V2
Processor	ATmeg644.	ESP-WROOM-02
Operating Voltage	6-9v	3.0-6.0v
Clock Speed	16MHz	N/A
Flash Memory	128-KByte	4 mb
EEPROM	4-KByte	N/A
SPRAM	4-KByte	50kb
USB	Standard MiniB Cable	Micro USB
Price	PHP 9000.00 (approx)	PHP 565.00 (shipping excluded)

Peripherals	ATX2	ESPresso Lite V2
Wifi Module	None	ESP8266 WROOM-02 Wi-Fi module
LED pinout	8 pins 1.8” 128x 160 dots colored LED	I2C OLED Module – Blue 128 x 64 resolution
IDE	Arduino	Arduino
Breadboard Friendly	No	Yes

---------- TESTING PHASE ----------



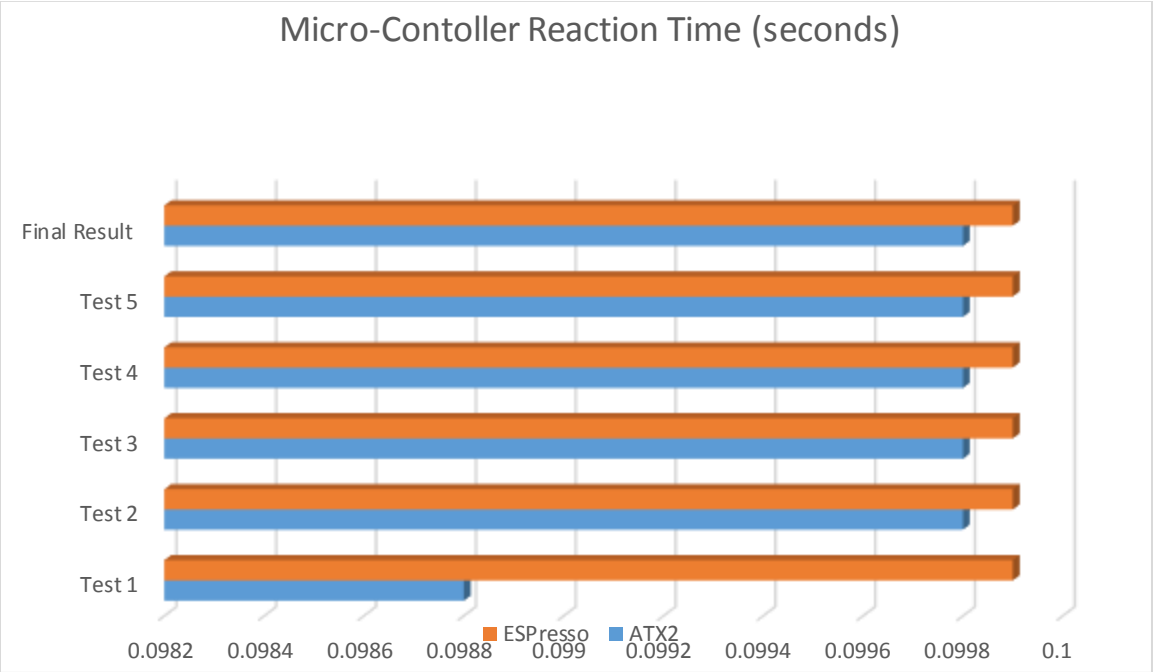
After testing the ATX2 with the IR sensor, The Chart shows the 80% success rate of the board connected with the sensor. The error during the second test showed the wrong display after sensor reading; hence the inaccuracy of the reading.



The ESPresso Lite V2 on the other hand shows a total of 90% success rate after 5 tests. one error occurred during the last test for it didn't read anything after the Infrared sensor was exposed to the color sample.

Both board were tested with an IR sensor to detect white and send an impulse to any output device such as LED. Results below are shown after 5 test.

- *IR sensor reading*
- *2 sensors connected to check 2 color sample*



The chart show the reaction time between ATX2 and ESPresso. There is just slight difference for the reading. ESPresso has a 0.99 seconds of reaction time after one sensor was exposed to the color sample. While ATX2 had 0.98 seconds of reaction time.

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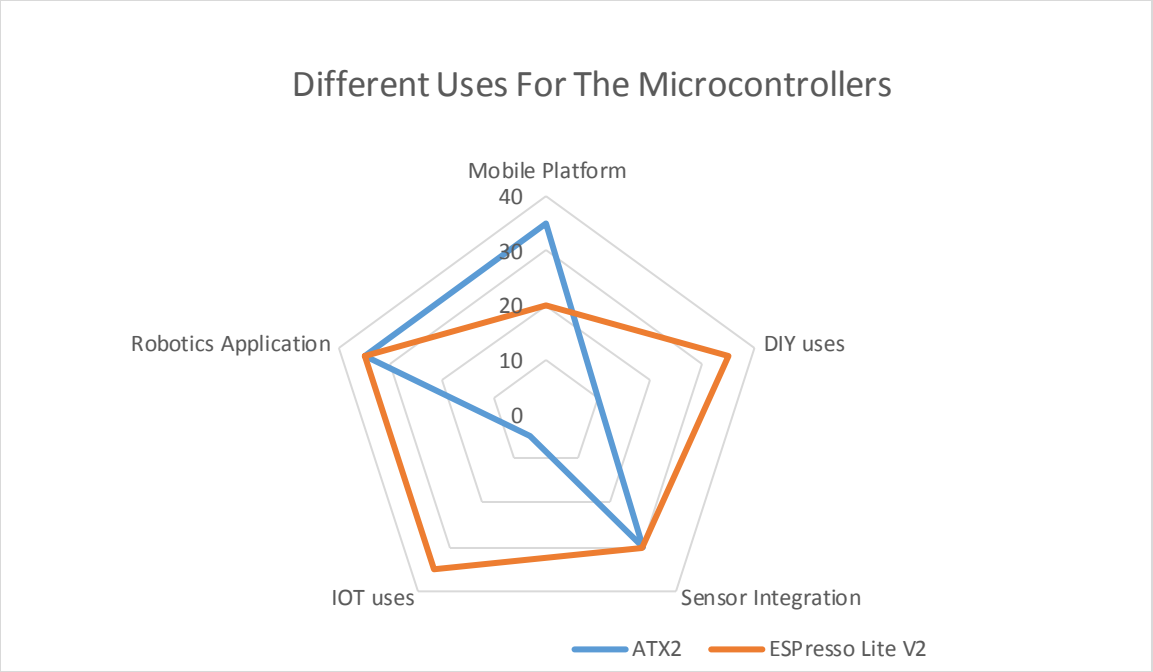

For the different uses, ATX2 is suitable for mobile Robots for it has 6 motor ports compared to the ESPresso which has pins that are convertible to motor ports. While ESPresso is compact when it comes to IOT and DIY uses with the help of its WiFi Module and its feauture of being breadboard Friendly.

Parts	ATX2	ESPresso
Motor Ports	6	N/A PWM convert
Analog Ports (for sensors)	8	1 ADC port
Servo ports	8	Use Breadboard for servo

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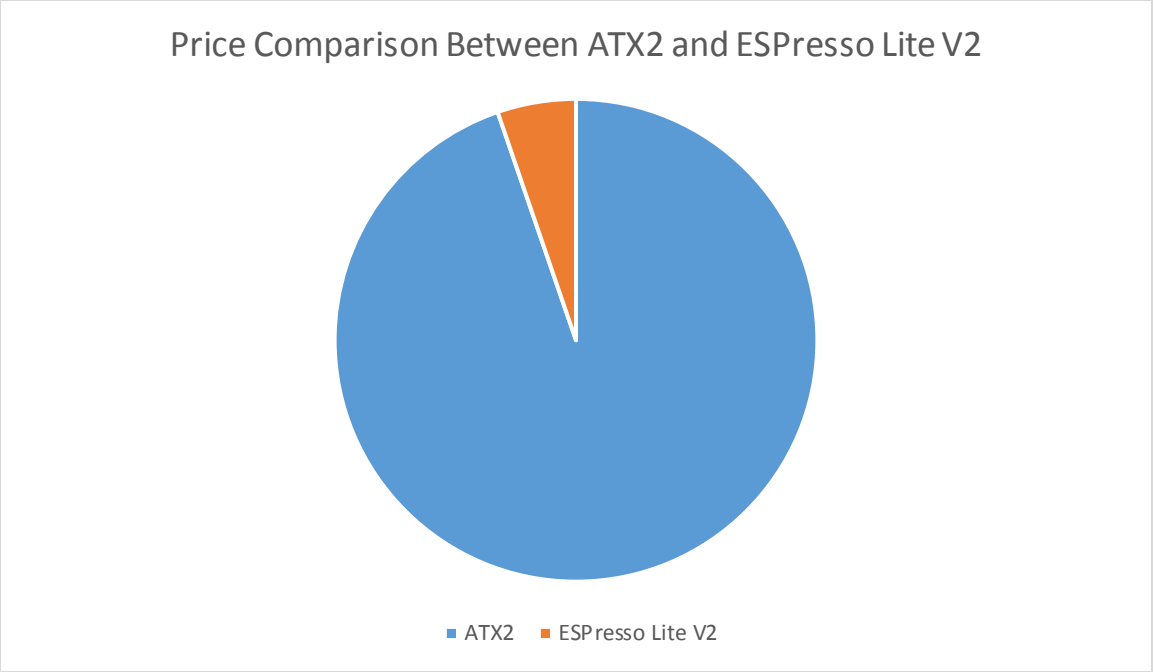

The chart above shows the price range of both the boards but the ESPresso is clearly affordable in all ways. Infact based on the data above it is 18x cheaper compared to ATX2 or It is just the 5% the price of ATX2.

ATX2 – PHP 9000.00

ESPresso Lite V2 – PHP 565.00

The ATX2 Microcontroller is manufactured in Thailand by Innovative Expirement Corporation. But it is locally available here in the Philippines at Data Science and Technology Corporation located at 295 Col. Bonny Serrano Ave, Quezon City, 1100 Metro Manila

The ESPresso Lite V2 was a product of collaboration from Cytron Technology based in Malaysia and Espressif from Singapore. This can be ordered in these websites: http://www.espressolite.com/buy.