

**Arduino
Compatible**



Open Source Electronic Prototyping Platform

OSEPP™

**Hardware and Software
for creating
interactive projects**

www.osepp.com

TABLE OF CONTENTS

Starter Kit Series

101 Arduino Basics	6
101 Arduino Basics Companion Kit	7
201 Arduino Basics	8
101 Robotic Basics.....	9

Sensor Modules

4-Digit Touch Sensor Module	11
Accelerometer Sensor Module	11
Color Sensor Module.....	12
Compass Sensor Module	12
Fan Motor Module.....	13
Flame Sensor Module	13
Humidity & Temperature Sensor Module.....	13
Gyroscope Sensor Module.....	14
IR Detector Module.....	14
IR Follower Module.....	14
IR Line Sensor Module	15
IR Proximity Sensor Module	15
IR Receiver Module.....	16
LED Modules.....	16
Light Sensor Module	17
LM35 Temperature Sensor Module.....	17
MQ-3 Alcohol Gas Sensor Module	17
Passive Infrared Sensor (PIR) Module.....	18
Piezo Sensor Module	18
Potentiometer Module.....	18
Push Button Module	19
Reed Switch Sensor Module.....	19
Sound Sensor Module	19
Touch Sensor Module	20
Voltage Sensor Module	20
Ultrasonic Sensor Module	20

Shield Boards

16x2 LCD Display & Keypad Shield	22
I2C Expansion Shield	22
microSD Shield	23
Motor and Servo Shield.....	23
Proto Shield.....	24
Sensor Shield	24

Breakout and Driver Boards

FTDI Breakout Board.....	26
Motor Driver Module	26
Stepper Motor & Driver.....	26

Servo Motors27

Monocrystalline Solar Cells28

Accessories, Cables and Jumpers

F/F Premium Jumpers – 6"	30
M/F Premium Jumpers – 6"	30
M/M Premium Jumpers – 6"	30
4-Pin I2C Connector F/F – 8"	31
4-Pin I2C Connector M/F – 8"	31
4-Pin I2C Connector M/M – 8"	31
Barrel Jack to 2-pin JST.....	31
USB Barrel Jack Adapter.....	32
3 Pin Jumper Cable	32
Battery Holder	32
DC Barrel Jack Adapter – Female	32
DC Barrel Jack Adapter – Male.....	33
Arduino Stackable Header – 6 pin	33
Arduino Stackable Header – 8 pin	33
Arduino Stackable Header – 10 pin	33
Arduino Stackable Header Kit	34
Break Away Headers – Long.....	34
Break Away Headers – Straight.....	34
Female Headers.....	34
Mini Breadboard Self Adhering	35
Breadboard 400 Tie Points	35
Breadboard 830 Tie Points	35
Mini Push Button Switch.....	35
Momentary Push Button Switch.....	36
Tactile Button Assortment	36
16x2 LCD Display.....	36
LM35 Temperature Sensor Component	37
Mini Photo Cell	37
Multi Colored LED Assortment Set	37

Main Boards

Mega 2560 R3 Plus	39
Uno R3 Plus	39
Fio	39
Pro	40
Pro Mini.....	40
Bluetooth	40
Nano	41

WHO WE ARE

OSEPP™ is a division of Leo Sales Ltd. We are a Canadian company with our head office in British Columbia, Canada. We design and manufacture a line of Arduino compatible products. with a focus on new to novice users.

Our category of products include Kits, Sensors, Breakout Boards(s), Shield Boards, Accessories, and Main Boards.



FRIENDLY RISK FREE PARTNERSHIP

Becoming a distributor for us is easy and most important of all RISK FREE. We treat our distributors as partners and not competitors. Our products are solely sold through YOU.

Guaranteed Sales Policy

It means exactly that. We guarantee that our products will sell. If for whatever reason they don't, give it back to us for full credit or full refund.

No Case Quantity Requirements

Being that we would take back any product that don't sell, we see no point in enforcing case quantities, so we don't. Only buy what you want—even if it is just one unit.

Low Prepaid Freight

If your order is \$500 or more, we will pay for the shipping cost. Our warehouse is located in Canada but you don't have to worry about that. We will look after all clearance fees or duties (if applicable)—USA only.

Orders under \$500 are prepaid and charged. We will still look after all clearance and any applicable duties for cross boarder shipments (USA only).

Low Minimum Order

Although we enforce a minimum dollar for each order, it is only \$250. Our shipping department would be upset otherwise.

Tech Support

You don't have to know how to use our products to be a distributor. We have a team of technical staff who will look after all after sales support for you. All emails to support@osepp.com are guaranteed to be responded to before the end of the same business day. In most cases, it is responded to in the first 2 hrs!.

STARTER KITS SERIES

There are over 300,000 Arduino compatible products in the market. It can be overwhelming for anyone wanting to learn about Arduino and what it can do. This was the idea behind our Starter Kit Series.

Our focus is to teach new or novice users about Arduino by the use of easy to follow lessons with step by step instructions

NO PRIOR ELECTRONICS KNOWLEDGE REQUIRED!



101 Arduino Basics

- Discover Arduino through EASY and FUN lessons Step-by-step instructions with diagrams
- No prior electronics knowledge required
- Kit comes with everything you need to build your own:
 - Volt Meter
 - Buzzer Circuit and play melody
 - LED Game
 - INCLUDES the OSEPP UNO R3 PLUS board!

Key Features

- Tutorial 1: Loading the First Sketch
- Tutorial 2: Controlling Digital Outputs
- Tutorial 3: Using Digital Input
- Tutorial 4: An LED Game
- Tutorial 5: Building Voltage Meter
- Tutorial 6: Using Buzzer to Play a Melody
- Tutorial 7: Counting Down with a 7 Segment LED
- Tutorial 8: Powering the UNO R3 PLUS Using Batteries



Kit Content

OSEPP UNO R3 Plus.....	1
6 feet USB type A to mini-B	1
Tact push switch 6mm x 6mm – through hole	2
DIP switch 4 position – through hole	1
1Kohm potentiometer (variable resistor) – long pins	1
10Kohm potentiometer (variable resistor) – long pins	1
330 ohm axial resistor, 1/2W, 5%	20
1 kohm axial resistor, 1/2W, 5%	5
10kohm axial resistor, 1/2W, 5%	5
LED through hole – Red, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Yellow, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Green, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – White, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Blue, 8.7mm height, ~2V drop, ~10-20mA	2
Two digits 7-segment LED – RED	2
Buzzer, 5Vo-p	1
NPN transistor	2
Breadboard – 30 columns x 14 rows (include 2 VCC and 2 GND)	1
6 inches male-to-male jumper wires (red)	10
6 inches male-to-male jumper wires (black)	10
6 inches male-to-male jumper wires (white)	10
6 inches male-to-male jumper wires (grey)	10
6 inches male-to-male jumper wires (blue)	10
4x AA battery enclosure with DC power jack and ON/OFF switch, cable length 4"	1
2cm x 2cm x 3mm thick double side tape	2
Booklet – Arduino UNO diagram + basic electronic theory.....	1
Kit container	1

Product Info	
Stock Code	ARD-01
Description	101 Arduino Basics Starter Kit (with OSEPP UNO R3 Plus Board)
Package Size	Kit

101 Arduino Basics Companion Kit

- Discover Arduino through EASY and FUN lessons Step-by-step instructions with diagrams
- No prior electronics knowledge required
- Kit comes with everything you need to build your own:
 - Volt Meter
 - Buzzer Circuit and play melody
 - LED Game
 - OSEPP UNO R3 PLUS board Not Included.

Key Features

- Tutorial 1: Loading the First Sketch
- Tutorial 2: Controlling Digital Outputs
- Tutorial 3: Using Digital Input
- Tutorial 4: An LED Game
- Tutorial 5: Building Voltage Meter
- Tutorial 6: Using Buzzer to Play a Melody
- Tutorial 7: Counting Down with a 7 Segment LED
- Tutorial 8: Powering the UNO R3 PLUS Using Batteries



Kit Content

6 feet USB type A to mini-B	1
Tact push switch 6mm x 6mm – through hole	2
DIP switch 4 position – through hole	1
1Kohm potentiometer (variable resistor) – long pins	1
10Kohm potentiometer (variable resistor) – long pins	1
330 ohm axial resistor, 1/2W, 5%	20
1 kohm axial resistor, 1/2W, 5%	5
10kohm axial resistor, 1/2W, 5%	5
LED through hole – Red, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Yellow, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Green, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – White, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Blue, 8.7mm height, ~2V drop, ~10-20mA	2
Two digits 7-segment LED – RED	2
Buzzer, 5Vo-p	1
NPN transistor	2
Breadboard – 30 columns x 14 rows (include 2 VCC and 2 GND)	1
6 inches male-to-male jumper wires (red)	10
6 inches male-to-male jumper wires (black)	10
6 inches male-to-male jumper wires (white)	10
6 inches male-to-male jumper wires (grey)	10
6 inches male-to-male jumper wires (blue)	10
4x AA battery enclosure with DC power jack and ON/OFF switch, cable length 4"	1
2cm x 2cm x 3mm thick double side tape	2
Information sheet – Arduino UNO diagram + basic electronic theory	1
Kit container	1

Product Info	
Stock Code	ARD-01B
Description	Description: 101 Arduino Basics Companion Kit (w/o OSEPP UNO R3 Plus Board)
Package Size	Kit

201 Arduino Basics

- Discover Arduino through EASY and FUN lessons
- Step-by-step instructions with diagrams
- No prior electronics knowledge required
- Kit comes with everything you need to build 15 projects across 8 categories:

Key Features

- Tutorial 1: Temperature
- Tutorial 2: Light
- Tutorial 3: LEDs
- Tutorial 4: Sound
- Tutorial 5: Ultrasonic
- Tutorial 6: Servo Motors
- Tutorial 7: Stepper Motors
- Tutorial 8: LCD

Comes with one bonus project to help combine skills learnt in previous lessons into new projects



Kit Content

OSEPP UNO R3 Plus	1
6 feet USB type A to mini-B	1
Tact push switch 6mm x 6mm – through hole	2
10K ohm linear potentiometer (variable resistor) – long pins	1
100 ohm axial resistor, 1/2W, 5%	5
330 ohm axial resistor, 1/2W, 5%	20
1k ohm axial resistor, 1/2W, 5%	5
10k ohm axial resistor, 1/2W, 5%	5
1M ohm axial resistor, 1/2W, 5%	2
LED through hole – Red, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Yellow, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Green, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – White, 8.7mm height, ~2V drop, ~10-20mA	2
LED through hole – Blue, 8.7mm height, ~2V drop, ~10-20mA	2
Buzzer, 5Vo-p	1
Speaker, 8-ohm	1
LM35 Temperature Sensor	1
Photo Cell	1
LCD 16x2 Character Display	1
Ultrasonic Range Finder	1
Servo Motor	1
Stepper Motor	1
Stepper Motor Driver	1
Breadboard – 30 columns x 14 rows (include 2 VCC and 2 GND)	1
2pin Screw Terminal	2
6 inches male-to-male jumper wires (red)	10
6 inches male-to-male jumper wires (black)	10
6 inches male-to-male jumper wires (white)	10
6 inches male-to-male jumper wires (grey)	10
6 inches male-to-male jumper wires (blue)	10
6 inches male-to-female jumper wires (white)	10
Arduino Basics 201 Tutorial book	1
Kit container	1

Product Info

Stock Code	ARD-02
Description	201 Arduino Basics Starter Kit
Package Size	Kit

101 Robotic Basics

Autonomous Function * Light Following * Object Avoidance

This has to be one of the 'coolest' looking kits in the Arduino market. Custom designed aluminum chassis with a nice protective black coat that prevents the surface from scratching and oxidizing. The strategically placed holes on the chassis allows you to easily attach more sensors or other devices to the frame for more functions.

Kit comes with everything you need to make your own autonomously operating robot. Not only that, it is smart enough to 'chase' after the brightest light in the room. With this function, you can use a flash light as your remote! If you prefer using an IR remote, that works too.

We have included lessons that teaches you how to use two IR Detectors to give the robot object avoidance ability. The booklet that comes with this kit is close to 100 pages thick! Lots of great info, lessons, and codes.

Kit Content

Uno R3	1	
L298N Motor Driver	1	
IR Follower	1	
IR Receiver	1	
IR Detector.....	2	
Top Chassis Frame.....	1	
Bottom Chassis Frame.....	1	
Ball Caster Wheel Set Motor Mount Set	2	
Motor Assembly Set	2	
Standoffs 3 cm	8	
Standoffs 1cm	13	
Wheel	2	
Screw B 6 mm	20	(main board screws)
Battery Holder Screw Set Nuts	14	(for motor & battery holder)
Jumper wire 16 cm	2	(for motor driver to a Uno ISP)
Mini USB Cable x 1 F/F Jumper 10cm	6	(for IR Detector/Receiver)
Screw Cap	2	
Wire	1	
M/F Ribbon Jumper Wires 10cm.....	20	
Remote Control	1	
ON/OFF Switch	1	with screw
Screw A 6 mm	20	(for chassis frame)
Plastic Washer	4	(between UNO & standoffs)



Assembly is required and part of the learning process

Product Info	
Stock Code	ROB-01
Description	101 Robotic Basics Starter Kit
Package Size	Kit



SENSOR MODULES

One of our main focuses is to provide the largest sensor selection in the market. This is a tall order but we plan on adding 20 new sensors a year!

We do sell some sensor components but you will notice that the majority of our sensors are designed as a module. This simplifies the learning process by taking out the need for breadboards and buying individual components.

OSEPP sensors are 100% Arduino compatible. This includes any boards in the market. Whether you're creating an environmentally aware quadcopter to a spatially aware robot, our sensors are fully compatible.

4-Digit Touch Sensor Module



The touch sensor can detect when a person's body conductivity touches a pad.

- Operating voltage: 2.45v - 5.5v MAX
- Indicator LEDs on touch
- Capacitive touch
- Digital input

Product Info

Stock Code	4DTOUCH-01
Description	4-Digit Touch Sensor Module
Package Size	1

Accelerometer Sensor Module

The OSEPP Accelerometer Sensor Module is a 3-axis acceleration sensor. It utilizes the Analog Device ADXL345 providing a high resolution measurement of up to +/- 16 g. The accelerometer measures the static acceleration of gravity in tilt-sensing applications, as well as dynamic acceleration resolution from motion or shock. Its high resolution enables measurement of inclination changes of less than 1.0°.

The module uses the I²C interface for data communication. The I²C lines are packaged with the power and ground lines into a modular connector, which allows easy plug and play operation. There are two connectors on the module to enable daisy chaining of multiple I²C devices together.

The OSEPP Accelerometer Sensor Module combined with the OSEPP Gyroscope Sensor Module can deliver a complete 6-axis sensor for full motion detection.

- Plug and play with OSEPP I²C Expansion Shield
- X-, Y-, Z- Axis acceleration measurement with full-scale-range of +/- 2, 4, 8, or 16 g
- Up to 13-bit of resolution maintaining 4 mg/LSB in all g ranges
- Supports I²C interfacing with 2 programmable 7-bit address of 0x1D or 0x53
- Provides pass-through connector to support daisy chaining of multiple sensors from the OSEPP Sensor Module family
- Provides 0.1" breakout points for power and I²C interface pins access



Product Info

Stock Code	ACCEL-01
Description	Accelerometer Sensor Module
Package Size	1

Color Sensor Module

A complete color detector, including a TSC3200 RGB sensor chip and 4 white LEDs. Detects and measures a wide range of visible colors. Applications include color sorting, color matching, and ambient light sensing.



- Power: (2.7V to 5.5V)
- Interface: Digital TTL
- High-Resolution Conversion of Light Intensity to Frequency
- Programmable Color and Full-Scale Output Frequency
- Power Down Feature
- Communicates Directly to Microcontroller

Product Info

Stock Code	COLOR-01
Description	Color Sensor Module
Package Size	1

Compass Sensor Module

The OSEPP Compass Sensor Module is a 3-axis digital compass for low-field magnetic sensing. It utilizes the Honeywell HMC5883L state-of-the-art high resolution magneto-resistive sensors, an ASIC containing amplification, automatic degaussing strap drivers, offset cancellation, and a 12-bit ADC that enables a compass heading accuracy to within 1-2 degrees.

The module uses the I²C interface for data communication. The I²C lines are packaged with the power and ground lines into a modular connector, which allows easy plug and play operation. There are two connectors on the module to enable daisy chaining of multiple I²C devices together.

The OSEPP Compass Sensor Module is ideal for applications that require the measurement of both the direction and the magnitude of Earth's magnetic field, from milligauss to 8 gauss.

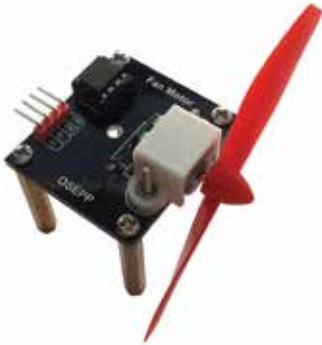
- Plug and play with OSEPP I²C Expansion Shield
- 12-Bit ADC with 2 milligauss field resolution in +/- 8 gauss field to enable 1-2 degree compass heading accuracy
- Fast 160 Hz maximum output rate
- Low power consumption
- Supports I²C interfacing with 7-bit address of 0x1E
- Provides pass-through connector to support daisy chaining of multiple sensors from the OSEPP Sensor Module family
- Provides 0.1" breakout points for power and I²C interface pins access



Product Info

Stock Code	COMP-01
Description	Compass Sensor Module
Package Size	1

Fan Motor Module



The fan motor controller board allows speed and direction control of a low power DC motor. 100% Arduino Compatible.

- Operating voltage output: 3V – 6V MAX
- Speed (no load):15000 rpm
- Speed (6V):8000 rpm
- Current (6V):40mA
- Stall current (6V):360mA
- Torque (6V):0.111kg/cm

Product Info	
Stock Code	FAN-01
Description	Fan Motor Module
Package Size	1

Flame Sensor Module



Use to detect variations in light wavelength (such as fire flame detection) in the range of 760nm - 1100 nm.

- 100% Arduino Compatible
- Operating voltage: 4.75V – 5V MAX
- Working current: 20 mA
- Spectral bandwidth range: 760 - 1100 nm.
- Detection range 0-1 m
- -25 ~ 85 degrees Celsius.

Product Info	
Stock Code	FLAME-01
Description	Flame Sensor
Package Size	1

Humidity & Temperature Sensor Module



Humidity and temperature sensor module that easily connects to Arduino microcontrollers. Pre calibrated at factory for precision measurements.

- 100% Arduino Compatible
- 3 pin outs: GRD (-) VCC (+) S – Signal
- 20 meter signal transmission
- Power supply voltage: 5V
- Temperature Range: 0-50°C
- Temperature Accuracy: +/- 2°C
- Humidity Range: 20-90%RH
- Humidity Accuracy: +/- 5%RH

Product Info	
Stock Code	HUMI-01
Description	Humidity & Temperature Sensor Module
Package Size	1

Gyroscope Sensor Module



The OSEPP Gyroscope Sensor Module is a 3-Axis gyroscope sensor. It utilizes the InvenSense MPU3050 Motion Processor Unit providing a full-scale range from +/- 250°/s up to +/-2000°/s of angular rate measurement while providing the highest robustness supporting 10 000 g of shock.

The module uses the I²C interface for data communication. The I²C lines are packaged with the power and ground lines into a modular connector, which allows easy plug and play operation. There are two connectors on the module to enable daisy chaining of multiple I²C devices together.

The OSEPP Gyroscope Sensor Module combined with the OSEPP Accelerometer Sensor Module can deliver a complete 6-axis sensor for full motion detection.

- Plug and play with OSEPP I²C Expansion Shield
- X-, Y-, Z- Axis angular rate gyros sensor
- Programmable angular rate sensors with full-scale-range of +/-250, 500, 1000, or 2000 °/s
- 16-bit ADC for digitizing sensor output, sample rate programmable from 8000 samples/sec down to 3.9 samples per second
- Supports I²C interfacing with 2 programmable 7-bit address of 0x68 or 0x69
- Provides pass-through connector to support daisy chaining of multiple sensors from the OSEPP Sensor Module family
- Provides 0.1" breakout points for power and I²C interface pins access

Product Info

Stock Code	GYROS-01
Description	Gyroscope Sensor
Package Size	1

IR Detector Module



Obstacle avoidance module. Detects when objects are within the calibrated range.

- 100% Arduino Compatible
- 3 pin outs:
 - G – Ground
 - V – 5V
 - S – Signal

Product Info

Stock Code	IRDET-01
Description	IR Detector Module
Package Size	1

IR Follower Module



Consists of 6 IR diodes. This IR Follower module can be used to sense infrared light as a way to guide your Arduino project.

- 100% Arduino Compatible
- Can be used to build a light following robot
- 6 analog pins and power pins

Product Info

Stock Code	IRFOL-01
Description	IR Follower Module
Package Size	1

IR Line Sensor Module



The OSEPP IR Line Sensor Module differentiates the reflections between dark and light surfaces. It utilizes the Fairchild QRE1113GR miniature reflective object sensor and the NXP PCA9691 A/D converter. The 8-bit A/D converter digitalizes the sensor output. The sensor operates by emitting an IR signal via an LED, and then measuring the amount of reflection to determine the blackness of the surface.

The module uses the I²C interface for data communication. The I²C lines are packaged with the power and ground lines into a modular connector, which allows easy plug and play operation. There are two connectors on the module to enable daisy chaining of multiple I²C devices together. This sensor module is ideal for designs that required to track black line on a white surface (or vice versa), such as in a line-following robot, or used to detect the outer perimeters of a competition ring.

Product Info

Stock Code	LINE-01
Description	IR Line Sensor
Package Size	1

IR Proximity Sensor Module

The OSEPP IR Proximity Sensor Module measures distances. It utilizes the Sharp GP2Y0D805Z0F measuring sensor unit which is composed of an integrated combination of photo diode, infrared emitting diode and a signal processor. The digital value from the proximity sensor is read out on the I²C bus.

The module uses the I²C interface for data communication. The I²C lines are packaged with the power and ground lines into a modular connector, which allows easy plug and play operation. There are two connectors on the module to enable daisy chaining of multiple I²C devices together. This sensor module is ideal for designs that need to detect objects within a certain range or designs that need to avoid obstacles. It can also be used as a touchless switch.

- Plug and play with OSEPP I²C Expansion Shield
- Detection range of 0.5 – 5.0 cm
- Supports I²C interfacing with 4 programmable 7-bit address (0x20, 0x22, 0x24, 0x26) to allow up to 4 OSEPP IR Proximity Sensor module to exist on the same I²C bus
- Provides pass-through connector to support daisy chaining of multiple sensors from the OSEPP Sensor Module family
- Provides 0.1" breakout points for power and I²C interface pins access



Product Info

Stock Code	PROX-01
Description	IR Proximity
Package Size	1

IR Receiver Module

Use as infrared receiving module for your Arduino projects.



- 100% Arduino Compatible
- 3 pin outs: G –Ground V – 5V S – Signal
- Operates at a frequency of 38khz

Product Info	
Stock Code	IRREC-01
Description	IR Receiver Module
Package Size	1

LED Modules



Product Info		
Stock Code	Description	Package Size
LEDBL-01	LED Module - Blue	1
LEDGN-01	LED Module - Green	1
LEDWH-01	LED Module - White	1
LEDYL-01	LED Module - Yellow	1
LEDRD-01	LED Module - Red	1
LEDMX-01	LED Module Set: Blue, Green, Red, Yellow, and White	1 each color

The LED module allows easy plug and play configuration to your Arduino's I/O lines. The LED can be controlled through a PWM signal or a digital high/low output.

- 100% Arduino Compatible
- Operating voltage input : 5V (regulated)
- Digital/pulse width modulation output
- 25 mA operating voltage rating

Light Sensor Module

Photoelectric sensor used to detect ambient light. Can be used to detect light intensity in numerous home automation/industrial applications. Easily connect breakout board to Arduino.



- 3 pin outs: GRD (-) VCC (+) S (Signal)
- Suitable supply voltage: +3 to 5Vdc
 - Analog voltage output: 0 to 5 Vdc
 - Detects ambient light density
 - Works with CdsPhotoresistor
 - Interface with microcontrollers and logic circuits
 - Analog sensors
 - Uses PH 2.0 socket
 - Special sensor with Arduino expansion boards

Product Info	
Stock Code	LIGHT-01
Description	Light Sensor Module
Package Size	1

LM35 Temperature Sensor Module

LM35 Temperature sensor uses the LM35 integrated circuit. Can be used in numerous weather detection applications for home automation / weather monitoring. Breakout board format allows for easy interfacing with Arduino.



3 Pin Outs: GRD (-) VCC (+) S-Signal
Rated for Full - 55°C to + 150°C Range

- Calibrated directly in ° Celsius (Centigrade)
- Linear + 10 mV/°C Scale Factor
- 0.5°C Ensure accuracy (at +25°C)
- Suitable for remote applications
- Low cost due to wafer-level trimming
- Operates from 4 to 30V
- Less than 60-

Product Info	
Stock Code	TEMP-01
Description	LM35 Temperature Sensor Module
Package Size	1

MQ-3 Alcohol Gas Sensor Module

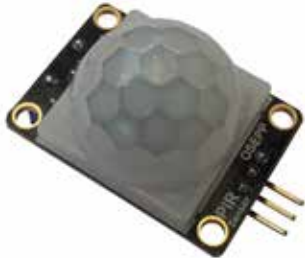
The alcohol gas sensor can detect a range of different gases such as LPG, i-butane, methane, alcohol, Hydrogen, smoke and more.



- 100% Arduino Compatible
- Operating voltage input : 4.9-5v
- Analog input
- Heating consumption: 0.5-800mW
- Operating Temperature: -25~70°C

Product Info	
Stock Code	AGAS-01
Description	MQ-3 Alcohol Gas Sensor Module
Package Size	1

Passive Infrared Sensor (PIR) Module



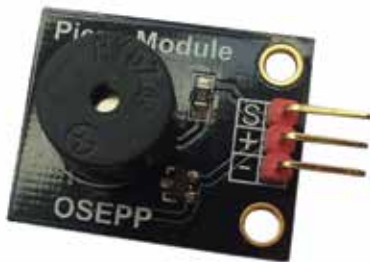
The Passive Infrared sensor detects changes in motion within its environment. 100% Arduino Compatible.

- Operating voltage 5V-12V
- Digital input sensor
- Detect variations in motion

Product Info

Stock Code	PIR-01
Description	Passive Infrared Sensor (PIR) Module
Package Size	1

Piezo Sensor Module



The Piezo sensor acts both as an output buzzer device and an input device measuring sound pressure.

- Wide supply voltage range: 3.3V to 5V
- Digital output buzzer
- Analog input sound pressure sensor

Product Info

Stock Code	PIEZO-01
Description	Piezo Sensor Module
Package Size	1

Potentiometer Module



The potentiometer module is able to adjust and read variations in voltage.

- 100% Arduino Compatible
- 360 degree rotation angle (non continuous)
- Analog reading of voltage
- Operating voltage 3.3V-5V

Product Info

Stock Code	POTEN-01
Description	Potentiometer Module
Package Size	1

Push Button Module



The push button module allows detection in states of high or low from the onboard momentary push button.

- 100% Arduino Compatible
- Operating voltage output : 3.3V – 5V MAX
- Digital input
- Plug and play configuration

Product Info

Stock Code	PUSH-04
Description	Push Button Module
Package Size	4

Reed Switch Sensor Module



The Reed Switch module acts as a SPST (Single Pull Single Throw) switch. The reed switch state is triggered high or low based on the proximity of a magnet.

- 100% Arduino Compatible
- 10W rating
- Operating voltage 4.5V - 5.25V (5V typical)
- 500 mA rating
- Digital input device

Product Info

Stock Code	REED-01
Description	Reed Switch Sensor Module
Package Size	1

Sound Sensor Module



The sound sensor is the perfect sensor to detect environmental variations in noise.

- 100% Arduino Compatible
- Wide supply voltage range: 3v-5V
- 4mA current drain
- Analog voltage measurement through SIG pin
- Frequency range: 10 ~ 55 Hz

Product Info

Stock Code	SOUND-01
Description	Sound Sensor Module
Package Size	1

Touch Sensor Module



Easy breakout to connect to Arduino. Detects body capacitive touch, outputting analog voltage.

3 pin outs:

- G (GRD)
- V (VCC)
- S (Signal)

- 3-5 V operating range
- 5 mA minimum current requirement.
- Capacitive touch detection

Product Info

Stock Code	TOUCH-01
Description	Touch Sensor
Package Size	1

Voltage Sensor Module



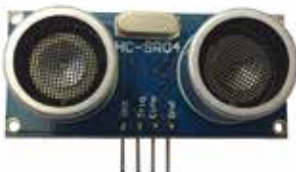
The voltage sensor can detect the supply voltage from 0.0245V to 25V.

- 100% Arduino Compatible
- Operating voltage output : 3.3V – 5V MAX
- Input voltage range 0.0245V ~ 25V MAX
- Analog input

Product Info

Stock Code	VOLT-01
Description	Voltage Sensor Module
Package Size	1

Ultrasonic Sensor Module



An ultrasonic transmitter and receiver sensor all in one.

- Operating Voltage: 5V
- Working Current: 15 mA
- Distance Range: 2cm to 400cm
- 100% Arduino Compatible

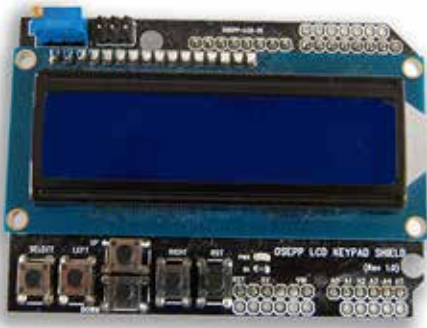
Product Info

Stock Code	HC-SR04
Description	Ultrasonic Sensor Module
Package Size	1

SHIELD BOARDS

16x2 LCD Display & Keypad Shield

The OSEPP 16 x 2 LCD Display and Keypad shield can plug directly onto the Arduino and Arduino compatible boards. The LCD panel displays characters in white with a blue backlit and can display up to two lines of 16 characters. The shield includes 6 momentary push button that can be used to implement a 5 buttons keypad including up, down, left, right and select function. The sixth push button brings out the Arduino's reset button to the top of the shield. The OSEPP 16 x 2 LCD Display and Keypad shield interfaces with the Arduino board using digital pin 4 to 10 and analog pin 0. The contrast can be adjusted via a trim pot and the backlit can be turn on and off. The shield is 5V compatible.



- Mate with Arduino and Arduino compatible boards
- Display up to 16 characters by 2 line
- Integrated the SPLC780D 16 COMs x 40 SEGs dot-matrix LCD controller and driver
- 5V operating voltage
- 5 button keypad – up, down, left, right, and select
- Brings out the Arduino's reset button to the top of the shield

Product Info

Stock Code	16x2SHD-01
Description	16x2 LCD Display and Keypad Shield
Package Size	1

I2C Expansion Shield

The OSEPP I2C Expansion Shield is an Arduino-Compatible daughter (extension) card. It provides easy interconnection with other I2C devices, such as the OSEPP Sensor Modules family. As well, it integrates an I2C switch that provides 4 additional isolated I2C buses to enable the use without collisions of multiple I2C devices with same I2C addresses. The main I2C bus and each of the 4 additional I2C bus are brought out to a robust latchable 4-pin connector that allow easy plug and play functionality.



- 1-to-4 I2C switch to provide four isolated I2C buses
- Stackable with other Arduino and Arduino Compatible shields
- Provides pass through of all I/O as well as reset button and ICSP connector.
- Three selectable address bits for I2C switch to allow stacking of up to eight Shields
- Supports boards with the Arduino Shield interface, such as (but not limited to): Duemilanove • Uno • Pro • Bluetooth • Mega/Mega 2560
- Works with 3.3 V and 5 V boards
- Plug and play I2C connectors that provide I2C, power, and ground signals
- Easily connect OSEPP i2c sensor line

Product Info

Stock Code	I2CSHD-01
Description	I2C Expansion Shield
Package Size	1

microSD Shield

Bring mass storage to your Arduino projects with this convenient microSD shield.

- 5v+3v3 or 3v3 operation
- 13×12 0.1" pitch prototyping area
- Compatible with popular libraries
- Interfaces over SPI with CS on pin 8

The SD card interfaces over SPI (SCK on D13, MISO on D12, MOSI on D11, and CS on D8). Since SD cards run at 3v3 we've included a level shifter so you can use the 5v logic found on popular Arduino boards.



Product Info

Stock Code	MSDS-01
Description	microSD Shield
Package Size	1

Motor and Servo Shield

The OSEPP Motor and Servo Shield can plug directly onto the Arduino and Arduino compatible boards. It supports up to 2 servo motors and 4 bi-directional DC motors, or 2 servo motor and 2 stepper motors. Servo header and terminal blocks are provided for easy connection to motor. The servo power supply and motor power supply can be configured to source from an individual terminal block or from the Arduino board providing flexibility to your project.

- Mate with Arduino and Arduino compatible boards
- Provides connectors to support 2 servos.
- Servo power supply can be configured to source from the servo power terminal block or from the Arduino's 5V pin.
- Support up to 4 bi-directional DC motors with individual 8-bit speed selection, and up to 2 stepper motors (unipolar or bipolar) with single coil, double coil or interleaved stepping.
- Motor power supply can be configured to source from the motor power terminal block or from the Arduino's VIN pin. Support motors operating between 4.5V to 25V DC.
- Includes two L293D Quad H-Bridges chipset that can provide 0.6A per bridge (1.2A peak) with thermal shutdown protection, internal kickback protection diodes.
- Provides DIP sockets to support other pin compatible motor bridge chipset.
- Integrated pull down resistor to keep motor disable during start up.
- Individual LED indicator for motor power supply state and servo power supply state.
- Brings out the Arduino's reset button to the top of the shield

Product Info

Stock Code	SCSHD-01
Description	Motor and Servo Shield
Package Size	1



Proto Shield

This Prototyping shield brings a small prototyping area to your Arduino for you to build your projects on. It includes two general purpose LEDs with resistors ready to use, just connect the anode pin to your Arduino. Also includes a user push-button with a pull-up resistor and brings the Arduino reset button to the shield. The Arduino headers are duplicated to solder pins on the board so you can stack with other shields without losing access to your headers. Fits a 47mm x 36.5mm mini breadboard.



- 13×16 0.1" pitch prototyping area
- Two LEDs with the anode pin exposed (JC2, JC3)
- Arduino Reset button • A User push-button with Pull-up (JC1)
- BlueSMiRF header

Product Info

Stock Code	PROTO-01
Description	Proto Shield
Package Size	1

Sensor Shield

Easily connect Servo motors, Sensors, and Bluetooth/RF modules to your Arduino or Arduino Compatible board. This Sensor Shield provides breakout connectors for standard Servo Motors and various 3-pin Sensors. A 5v DC screw terminal enables you to drive power hungry servo motors with an additional 5v DC power supply. Standard Arduino Shield form factor fits perfectly on top of the Arduino UNO and Mega. Pin Outs: For detailed Pin Outs, visit OSEPP.COM to download schematic.



- 100% Arduino Compatible
- Servo Breakout Connectors (6 with PWM)
- Sensor Breakout Connectors (5 Analog, up to 14 Digital)
- 6-pin Bluetooth Module Connector
- 6-pin APC220 RF Module Connector

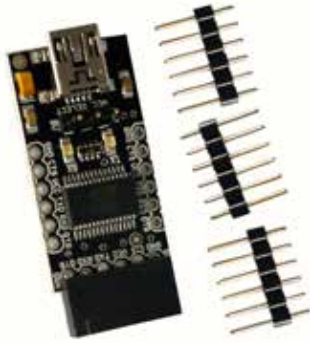
Product Info

Stock Code	SENSHD-01
Description	Sensor Shield
Package Size	1

***BREAKOUT
AND
DRIVER BOARDS***

FTDI Breakout Board

The OSEPP FTDI is a USB-to-serial (TTL) converter for serial communication with devices like the OSEPP Pro and Pro Mini boards. The board uses the popular FT232RL chip from FTDI. The pinout is designed to work with Arduino and compatible boards that do not have a built-in USB-to-serial converter, such as the Pro and Pro Mini. The pin VCC can be easily configured to be 3.3 or 5 V by placement of a jumper. This allows the board to be used with boards that operate on either 3.3 or 5 V nominal voltage. The FTDI board is designed for flexible connections to other boards. For example, its female header connects easily to the male pin header of the OSEPP Pro. Furthermore, connecting the provided male pin headers to the female pin header allows connections to pinout of the Pro Mini. The male pin headers can also be soldered to the FTDI board to make it breadboard mountable. Drivers for the Virtual COM Port (VCP) is available for virtually all mainstream operating systems.



- Pinout compatible with Arduino boards such as OSEPP brand
- Form factor is breadboard friendly
- Selectable common-collector voltage (VCC) of 3.3 or 5 V

Product Info

Stock Code	FTD-01
Description	FTDI Breakout Board
Package Size	1

Motor Driver Module



Motor driver can drive a 4-wire stepper motors, or two DC motors simultaneously for your Arduino project. Ability to control motor direction and speed when used with an Arduino.

- 100% Arduino Compatible
- L298 dual h bridge driver
- Reverse motor polarity (motor direction)

Product Info

Stock Code	MTD-01
Description	Motor Driver Module
Package Size	1

Stepper Motor & Driver



The ULN2003A stepper motor board is used to control 4 phase bipolar stepper motors such as the 28BYJ-48 stepper motor.

- 100% Arduino Compatible
- See back panel for detailed specifications

Product Info

Stock Code	STEPD-01
Description	Stepper Motor + Driver
Package Size	1

Servo Motors



Speed (sec/60°):	0.14 @4.2V, 0.12@5V
Torque (Kg.cm):	0.4@4.2V, 0.6@5V
Size (mm):	19.4 x 7.19 x 19
Weight (g):	3

Product Info	
Stock Code	LS-0003
Description	Plastic Gear Analog (small)
Package Size	1



Speed (sec/60°):	0.12 @4.5V, 0.1@6V
Torque (Kg.cm):	1@4.5V, 1.2@6V
Size (mm):	21.5 x 11.8 x 22.7
Weight (g):	6

Product Info	
Stock Code	LS-0006
Description	Plastic Gear Analog (medium)
Package Size	1



Speed (sec/60°):	0.14 @4.8V, 0.12@6V
Torque (Kg.cm):	6@4.8V, 6.5@6V
Size (mm):	40.8 x 20.1 x 38
Weight (g):	40

Product Info	
Stock Code	LS-3006
Description	Plastic Gear Analog - 360
Package Size	1



Speed (sec/60°):	0.12 @4.8V, 0.1@6V
Torque (Kg.cm):	2.2@4.8V, 2.5@6V
Size (mm):	22.8 x 12.3 x 29.7
Weight (g):	16

Product Info	
Stock Code	LS-1006A
Description	Metal Gear Analog
Package Size	1



Speed (sec/60°):	0.1 @4.8V, 0.08@6V
Torque (Kg.cm):	1.3@4.8V, 1.5@6V
Size (mm):	22.3 x 11.8 x 26.3
Weight (g):	9

Product Info	
Stock Code	LS-0009AF
Description	Metal Gear Digital
Package Size	1



Speed (sec/60°):	0.16 @6V, 0.14@7.2V
Torque (Kg.cm):	12.5@6V, 13@7.2V
Size (mm):	40.8 x 20.1 x 38
Weight (g):	58

Product Info	
Stock Code	LS-8101F
Description	Metal Gear Digital - 360
Package Size	1

Monocrystalline Solar Cells



Maximum efficiency Monocrystalline solar cells. Encapsulated with low reflecting water clear epoxy to protect against physical impact and harsh outdoor environments.

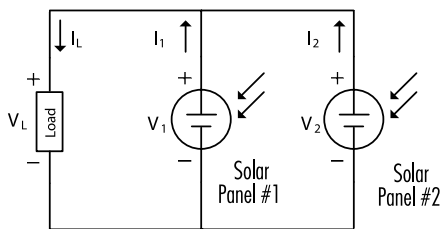
Stock Code	Description	Ampere (mA)	Voltage (V)	Size (mm)
SC10036	Monocrystalline Solar Cell	100 mA	3.6V	60 x 60 mm
SC10050	Monocrystalline Solar Cell	100 mA	5.0V	75 x 60 mm
SC10072	Monocrystalline Solar Cell	100 mA	7.2V	90 x 70 mm
SC20036	Monocrystalline Solar Cell	200 mA	3.6V	85 x 85 mm
SC20050	Monocrystalline Solar Cell	200 mA	5.0V	120 x 70 mm
SC20072	Monocrystalline Solar Cell	200 mA	7.2V	140 x 90 mm

Helpful Tips

Calculating Watts Power [Watt] = Voltage [Volt] x Current [Ampere]

Wiring Multiple Solar Panels

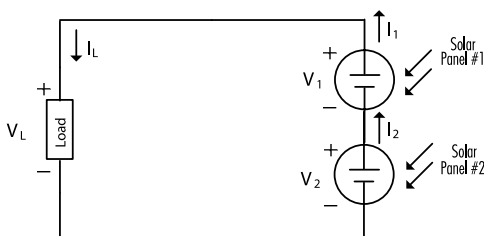
Parallel Wiring



Formula: $I_L = I_1 + I_2$
 $V_L = V_1 = V_2$

If your application needs a higher voltage supply source, you can wire multiple solar panels in series. You can wire the positive terminal of solar panel #1 to the load, and connecting the negative terminal of solar panel #1 to the positive terminal of solar panel #2. In this wiring, the total voltage delivered to the load will be doubled and the rated current supply will remain the same.

Series Wiring



Formula: $I_L = I_1 = I_2$
 $V_L = V_1 + V_2$

If your application needs more power, you can wire multiple solar panels in parallel. By connecting the positive terminal of solar panel #1 to the positive terminal of solar panel #2, and connecting the negative terminal of solar panel #1 to the negative terminal of solar panel #2, the maximum current that can be delivered to the load will be doubled. The rated voltage will remain the same.

ACCESSORIES
Cables and Jumpers

F/F Premium Jumpers – 6"



These 6" long jumpers have female connectors on both ends. The connectors fit nicely with the headers on your Arduino and Arduino compatible board as well as any standard 0.025" square pin header. Use with our 6" M/M Premium Jumpers to create a male to female jumper. Multiple jumpers can be installed next to one another on a 0.1" header.

- 2AWG, UL1007
- 6" long v
- Mates with 0.025" (0.635mm) pin
- Red, Black, White, Grey and Blue
- Temperature Range: 14F (-10C) to 176F (80C)

Product Info	
Stock Code	LS-FFPJ-06
Description	F/F Premium Jumpers – 6"
Package Size	50 Pack

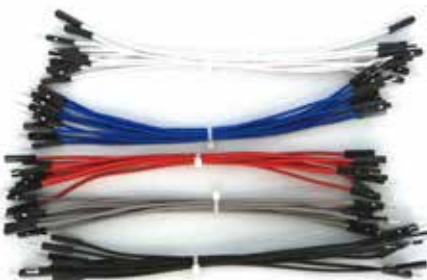
M/F Premium Jumpers – 6"



- 2AWG,
- 6" long
- Mates with 0.025" (0.635mm) pin
- 0.1" header size (breadboard friendly)
- Red, Black, White, Grey, and Blue
- Temperature Range (UL 1007): -10C / 14F to 80C / 176F

Product Info	
Stock Code	LS-MFPJ-06
Description	M/F Premium jumpers – 6"
Package Size	50 Pack

M/M Premium Jumpers – 6"



These jumpers are a huge time saver. The 0.025" square pin size fits nice and snug to the sockets on your Arduino and Arduino Compatible board as well as any standard breadboards. The five different colors help you organize your circuit wiring and minimize connection error. Multiple jumpers can be installed next to one another on a 0.1" socket.

- 2AWG, UL1007
- 6" long
- Mates with 0.025" (0.635mm) pin
- Red, Black, White, Grey and Blue
- Temperature Range: 14F (-10C) to 176F (80C)

Product Info	
Stock Code	LS-MMPJ-06
Description	M/M Premium Jumpers – 6"
Package Size	50 Pack

4-Pin I2C Connector F/F – 8"



- Length: 205mm +/- 5mm
- Connector: 4-pin 2.54mm pitch
- Wire: UL1007 -24AWG
- Pin mapping: straight through

Product Info	
Stock Code	FFI2C-01
Description	4-Pin I2C Connector, F/F – 8"
Package Size	4 Pack

4-Pin I2C Connector M/F – 8"



- Length: 205mm +/- 5mm
- Connector: 4-pin 2.54mm pitch
- Wire: UL1007 -24AWG
- Pin mapping: straight through

Product Info	
Stock Code	MFI2C-01
Description	4-Pin I2C Connector, M/F – 8"
Package Size	4 Pack

4-Pin I2C Connector M/M – 8"



- Length: 205mm +/- 5mm
- Connector: 4-pin 2.54mm pitch
- Wire: UL1571 -24AWG
- Pin mapping: straight through

Product Info	
Stock Code	LS-CAB4P-08
Description	4-Pin I2C Connector, M/M – 8"
Package Size	4 Pack

Barrel Jack to 2-pin JST



- Use to adapt from a wall power supply to SMD JST connector
- Ideal for battery charging
- 5.5 x 2.1mm barrel jack to 2-pin JST connector
- 7.9 inch long jumper cable

Product Info	
Stock Code	LS-00012
Description	Barrel Jack to 2-pin JST
Package Size	1 Pack

USB Barrel Jack Adapter



Allows user to pull 5 Volts of power from the USB port on computer, laptop, or car cigarette power supply to power an Arduino or other development board

- USB port to a 5.5 x 2.1mm center positive barrel jack
- 3' long cable
- 24 AWG Wire Cable

Product Info	
Stock Code	LS-00011
Description	USB Barrel Jack Adapter
Package Size	1 Pack

Battery Holder



- 4 cell AA battery holder
- Standard 5.5 x 2.1mm center positive barrel jack
- Approximate output of 5.5V from normal alkaline batteries.
- Perfect for Arduino or Arduino Compatible boards
- 7.0" cable

Product Info	
Stock Code	LS-00013
Description	Battery Holder
Package Size	1 Pack

3 Pin Jumper Cable



Three wire cable that is great for jumping from board to board or just about anything else. Perfect for 3 pin out sensors. There is a 3-pin JST RE connector on both ends. Standard 0.1" pitch.

- Gauge 26 AWG
- Length - 18cm
- 3 pin wire - Black/Red/White

Product Info	
Stock Code	3PIN-01
Description	3 Pin Jumper Cable
Package Size	10 Pack

DC Barrel Jack Adapter – Female



- Barrel jack to bare wires using screw terminal
- 5.5 x 2.1 mm center-positive femal barrel jack
- Ideal for connecting power supply with barrel jack to breadboard

Product Info	
Stock Code	LS-00015
Description	DC Barrel Jack Adapter – Female
Package Size	2 Pack

DC Barrel Jack Adapter – Male



- Barrel jack to bare wires using screw terminal
- 5.5 x 2.1 mm center-positive male barrel jack
- Ideal for connecting bare wires to an Arduino or a development board

Product Info	
Stock Code	LS-00014
Description	DC Barrel Jack Adapter – Male
Package Size	2 Pack

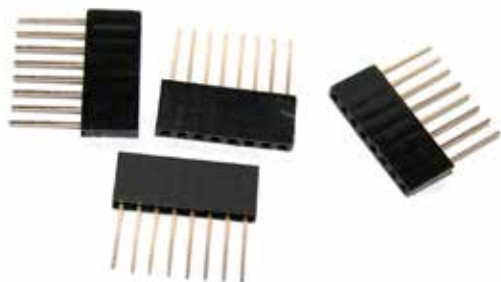
Arduino Stackable Header – 6 pin



- 6 Pin female header with extra long legs
- Great for stacking Arduino or OSEPP Shields
- Pins are spaced by standard 0.1"

Product Info	
Stock Code	LS-00007
Description	Arduino Stackable Headers – 6 pin
Package Size	4 Pack

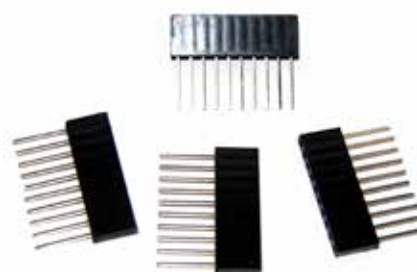
Arduino Stackable Header – 8 pin



- 8 Pin female header with extra long legs
- Great for stacking Arduino or OSEPP Shields
- Pins are spaced by standard 0.1"

Product Info	
Stock Code	LS-00008
Description	Arduino Stackable Header – 8 pin
Package Size	4 Pack

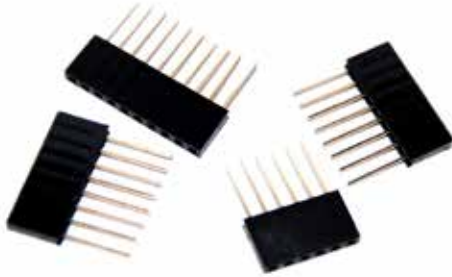
Arduino Stackable Header – 10 pin



- 10 Pin female header with extra long legs
- Great for stacking Arduino or OSEPP Shields
- Pins are spaced by standard 0.1"

Product Info	
Stock Code	LS-00009
Description	Arduino Stackable Header – 10 pin
Package Size	4 Pack

Arduino Stackable Header Kit



- Made for Arduino Uno R3 or OSEPP Uno R3 Plus or other similar boards
- Perfect height clearance for USB-B connector
- Includes 4 headers needed to stack a shield
- Pins are spaced by standard 0.1"

Product Info	
Stock Code	LS-00010
Description	Arduino Stackable Header Kit (1 x 6 pin, 2 x 8 pin, 1 x 10 pin)
Package Size	Kit

Break Away Headers – Straight



- Use with custom PCBs or general custom headers
- Break or cut to fit
- 40 pins per roll
- Pins are spaced by standard 0.1"
- 11.5 mm pin length

Product Info	
Stock Code	LS-00004
Description	Break Away Headers – Straight
Package Size	10 Pack

Break Away Headers – Long



- Standard break away headers but longer
- 20mm length allows you to use them socket to socket
- 40 pins per row
- Pins are spaced by standard 0.1"

Product Info	
Stock Code	LS-00005
Description	Break Away Headers – Long
Package Size	10 Pack

Female Headers



- Single row of 40-holes, female header
- Can be cut to size with standard wire-cutters
- Pins are spaced by standard 0.1"
- Compatible to Olimex development boards
- Mates well with break away male headers

Product Info	
Stock Code	LS-00006
Description	Female Headers
Package Size	10 Pack

Mini Breadboard Self Adhering



- Compatible with Arduino and all Osepp parts
- Dimensions: 1.8" x 1.4" • 170 tie points
- Phosphor bronze-nickel plated spring clips
- Accepts a variety of wire sizes (20 – 29 AWG)

Product Info	
Stock Code	LS-00017
Description	Mini Breadboard – Self Adhering
Package Size	2 Pack

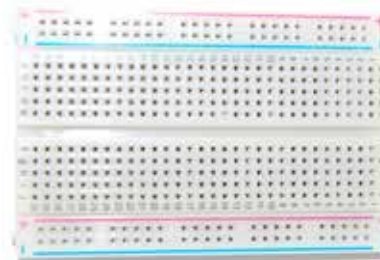
Breadboard 830 Tie Points



- Dimensions: 2.2" x 6.5"
- 1 Terminal Strip, 630 tie points
- 2 Distribution Strips, 200 tie points
- Colour coordinated for easy component placement
- Phosphor bronze-nickel plated spring clips
- Accepts a variety of wire sizes (20-29 AWG)

Product Info	
Stock Code	LS-00019
Description	Breadboard – 830 Tie Points
Package Size	1 Pack

Breadboard 400 Tie Points



- Dimensions: 3.2" x 2.1"
- 1 Terminal Strip, 300 tie points
- 2 Distribution Strips, 100 tie points
- Color coordinated for easy component placement
- Phosphor bronze nickel plated spring clips
- Accepts a variety of wire sizes (20-29 AWG)

Product Info	
Stock Code	LS-00018
Description	Breadboard – 400 Tie Points
Package Size	1 pack

Mini Push Button Switch



- 6mm Miniature Single Pole Single Throw switch
- Method of input for various projects
- Breadboard friendly
- Great as a tactile reset switch

Product Info	
Stock Code	LS-00003
Description	Mini Push Button Switch
Package Size	25 Pack

Momentary Push Button Switch



- Standard 12mm square switch
- Breadboard friendly
- Method of input for various projects
- Great for use as reset button

Tactile Button Assortment



- Applicable for various projects
- Multiple color selections
- Removable caps
- Momentary push buttons

Product Info	
Stock Code	LS-00002
Description	Momentary Push Button Switch
Package Size	10 Pack

Product Info	
Stock Code	LS-00001
Description	Tactile Button Assortment
Package Size	12 Pack

16x2 LCD Display

The LCD display is a 16 character by 2 line (16x2) LCD display. The LCD contains a white LED for backlight display. The viewing angle of 180 degrees (your 6 o'clock). Operating voltage is 5 volts.



- 100% Arduino compatible.
- Input Data: 4-Bits or 8-Bits interface available
- Display Font : 5 x 8 Dots
- Power Supply : Single Power Supply (5V±10%)
- 5 volt operating voltage
- Display Mode: STN, BLUB

Product Info	
Stock Code	LCD-01
Description	16x2 LCD Panel
Package Size	1 Pack

LM35 Temperature Sensor Component



LM35 Temperature sensor uses the LM35 integrated circuit. Can be used in numerous weather detection applications for home automation / weather monitoring.

- Rated for Full – 55°C to + 150°C Range
- Calibrated directly in ° Celsius (Centigrade)
- Linear + 10 mV/°C Scale Factor
- 0.5°C Ensure accuracy (at +25°C)
- Suitable for remote applications
- Low cost due to wafer-level trimming
- Operates from 4 to 30V
- Less than 60-

Product Info	
Stock Code	CTEMP-01
Description	LM35 Temperature Sensor Component
Package Size	5 Pack

Mini Photo Cell



The Light sensor is able to detect variations in light conditions. The input readings of light are directly proportional to the light sensors output voltage. The light sensor is typically used in environmental conditions where light illuminance (LUX) needs to be measured such as phones, cameras, security systems, toys.

- Operating Temperature -30~+70degree
- Max voltage : 250V
- Resistance 5-10k oHM
- 10-600 LUX

Product Info	
Stock Code	PHOTO-01
Description	Mini Photo Cell
Package Size	5 Pack

Multi Colored LED Assortment Set



- 5mm round LEDs
- Five each of Red, Yellow, Green, Blue, and White
- Widely used in flashlights and general lighting applications
- Compatible with Infrared Reflow Solder and Wave Solder Process

Product Info	
Stock Code	LS-00016
Description	Multi Colored LED
Package Size	25 Pack

MAIN BOARDS

(MICRO CONTROLLERS)

Mega 2560 R3 Plus



The OSEPP Mega 2560 R3 Plus is the bigger brother to the OSEPP Uno board with more flash memory, more SRAM, more EEPROM, and more pins. This board is perfect for projects that require a lot of inputs/outputs or that require more complex programs that cannot fit into the smaller memory of the ATmega328P.

- 8-bit AVR RISC-based microcontroller running at 16 MHz
- 8x more flash and 4x more SRAM and EEPROM than the Uno
- Connects to a computer via a standard USB cable
- Flexible power source (USB or DC power)
- ICSP header for programming microcontroller
- Compatible with existing Arduino software libraries
- Compatible with the Ethernet and Motor Controller Shields

Product Info

Stock Code	MEG-03
Description	Mega R3 2560
Package Size	1 Pack

Uno R3 Plus



The OSEPP Uno R3 Plus board is the basic starter model. It serves as a great starting point to the wonderful world of Arduino. This board uses the 8-bit, AVR, RISC-based ATmega328P microcontroller from Atmel.

- 8-bit AVR RISC-based microcontroller running at 16 MHz
- Connects to a computer via a standard USB cable
- Flexible power source (USB or DC power)
- ICSP header for programming microcontroller
- Compatible with existing Arduino software libraries
- Compatible with the Ethernet and Motor Controller Shields

Product Info

Stock Code	UNO-03
Description	Uno R3 Plus
Package Size	1 Pack

Fio



The OSEPP Fio board has wireless in mind. This board may connect to an XBee radio (sold separately) and has a connector for a lithium polymer battery which can be charged over the USB connection.

- 8-bit AVR RISC-based microcontroller running at 8 MHz
- On/off slide switch
- Charging circuit for lithium polymer battery
- Connector for interfacing with XBee modules
- Flexible power source (USB or lithium polymer battery)
- Compatible with existing Arduino software libraries

Product Info

Stock Code	FIO-01
Description	Fio
Package Size	1 Pack

Pro



The OSEPP Pro board is tailored to more professional users who do not mind a build-it-yourself approach compared to the OSEPP Uno. Unlike the Uno model this barebones board lacks headers, which gives this board a low profile. Pro users can choose to connect only the needed pins by mounting headers or soldering wires directly.

- 8-bit AVR RISC-based microcontroller running at 16 MHz
- About 2/3 the size of the OSEPP Uno board
- Flexible power source (lithium polymer battery or DC power)
- ICSP header for programming microcontroller
- Compatible with existing Arduino software libraries
- Compatible with the Ethernet and Motor Controller Shields

Product Info

Stock Code	PRO-01
Description	Pro
Package Size	1 Pack

Pro Mini



The OSEPP Pro Mini board is a miniaturized version of the OSEPP Pro, which in turn is a stripped down version of the OSEPP Uno. Basically, this is as small as it gets which allows for easy concealment in projects.

- 8-bit AVR RISC-based microcontroller running at 16 MHz
- Extremely small profile – less than 1/5 the size of the OSEPP Pro board
- Compatible with existing Arduino software libraries

Product Info

Stock Code	PRM-01
Description	Pro Mini
Package Size	1 Pack

Bluetooth



The OSEPP™ Bluetooth board introduces Bluetooth connectivity to its users with the Bluegiga WT11, class 1, Bluetooth 2.1 + EDR module. With more than 10 supported Bluetooth profiles, this board can be used for a multitude of BT-related projects.

- 8-bit AVR RISC-based microcontroller running at 16 MHz
- Bluegiga WT11 class 1 Bluetooth 2.1 + EDR module
- Input voltage can be as low as 1.2V
- Connects to a computer via Bluetooth serial COM
- ICSP header for programming microcontroller
- Compatible with existing Arduino software libraries
- Compatible with the Ethernet and Motor Controller Shields

Product Info

Stock Code	BTH-01
Description	Bluetooth
Package Size	1 Pack

Nano



The OSEPP Nano is a breadboard-friendly, downsized version of the Uno board with much of the same functionality. The main workhorse is still the ATmega328P; however, the number of analog pins has gone up from four to eight. The other difference is the lack of a DC power connector.

- 8-bit AVR RISC-based microcontroller running at 16 MHz
- Single mini-USB connector for both power and serial communication
- Form factor is breadboard friendly
- Less than 1/3 the size of the OSEPP Uno
- Two extra analog input pins compared to the OSEPP Uno
- Compatible with existing Arduino software libraries

Product Info	
Stock Code	NAN-01
Description	Nano
Package Size	1 Pack



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