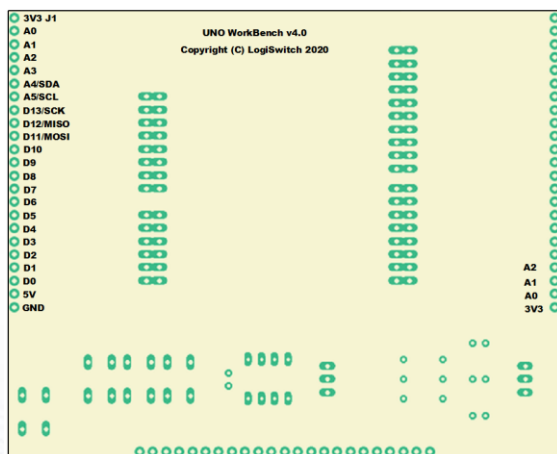


# LogiSwitch VisiShield WorkBench 4.0 Datasheet

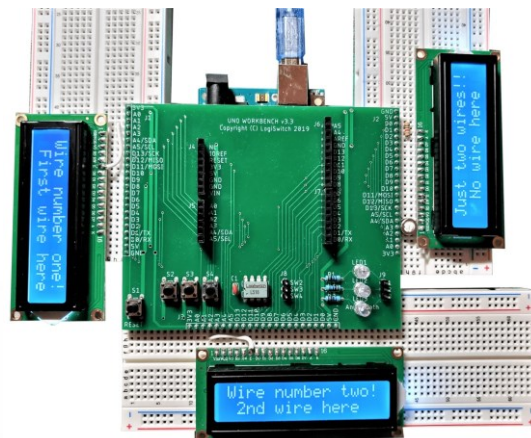
## Overview

The VisiShield™ WorkBench is a Protoextender Shield by LogiSwitch that provides up to three separate wire-free banks for the user's prototyping. Each bank contains all the I/O and power pins of the Uno and compatibles. It is sold in kit form in three different configurations:

1. LS400-BB The WorkBench 4.0 Barebones, a barebones version without the tactile switches and LEDs.
2. LS400-18 The WorkBench 4.0 with switches, LEDs, and LogiSwitch Debouncer IC LS18-P
3. LS400-118 The WorkBench 4.0 with switches, LEDs, and LogiSwitch Handshake Debouncer IC LS118-P



WorkBench 4.0



Example Wireless Breadboarding with the WorkBench

## Debouncer IC Current (LS18 or LS118)

Characteristic	Min	Typ	Max	Units
Quiescent current Add	-	1.09	1.70	mA
Input sink current per switch	0.25	140	300	μA

## Board Dimensions:

0.063 in x 3.400 in x 4.200 in (1.6 mm x 86.36 mm x 106.68 mm)

## Compatibility List:

The LogiSwitch LS400 WorkBench 4.0 board supports a host of compatible Arduino and non-Arduino controller boards including but not limited to the following:

Arduino Uno	Arduino Duemilanove
Arduino Leonardo	Arduino 101
Arduino BT (Bluetooth)	Genuino 101
Arduino Zero	Arduino Yun
Arduino Diecimila	Arduino Ethernet

A comprehensive list of compatible boards may be found on Wikipedia:

[https://en.wikipedia.org/wiki/List\\_of\\_Arduino\\_boards\\_and\\_compatible\\_systems](https://en.wikipedia.org/wiki/List_of_Arduino_boards_and_compatible_systems)

## Kit Contents:

LS400-BB Barebones Kit:

LS400-18 Kit (with LS18 Debouncer):

LS400-118 Kit (with LS118 Handshake Debouncer):

Note: Item 2, Male Header .1 in x 0.1 in 40-position strips used to make the following components:

- J1 - J3, 23-pin breadboard connectors
- J4 - J7, 8-pin Arduino shield connectors
- J8, 3-pin tact switch connector
- J9, 3-pin LED connector

## Bill of Materials

LS400-BB Bill of Materials			
ITEM	QTY	REF DES	DESCRIPTION
1	1		WorkBench 4.0 PCB
2	1	J12	10-Position Stackable Female Header (Modified) J12
3	2	J10,J13	8-Position Stackable Female Header (Modified) J10, J13
4	1	J11	6-Position Stackable Female Header (Modified) J11
5	3		40-Pin Male Headers
			NOTE: Cut to length by the customer as follows:
		J1-J3	(3) 23-pins
		J6	(1) 10 pins
		J4.J7	(2) 8-pins
		J5	(1) 6-pin

## LS400-18 Bill of Materials

ITEM	QTY	REF DES	DESCRIPTION
1	1		WorkBench 4.0 PCB
2	1	J12	10-Position Stackable Female Header (Modified) J12
3	2	J10,J13	8-Position Stackable Female Header (Modified) J10, J13
4	1	J11	6-Position Stackable Female Header (Modified) J11
5	3		40-Pin Male Headers
			NOTE: Cut to length by the customer as follows:
		J1-J3	(3) 23-pins J1-J3
		J6	(1) 10 pins
		J4.J7	(2) 8-pins
		J5	(1) 6-pin
1	1	J8	(1) 3-pin male header
1	1	J9	(1) 3-pin male header
6	4		6mm spst Tactile Switch
7	1	C1	Capacitor, 0.1uF
8	1	DS1	DIP Socket, 8-pin
9	1	U1	IC, LogiSwitch LS18
10	3	R1-R3	Resistors, 430 ohms, .25W
11	1	LED1	Red LED 5mm
12	1	LED2	Yellow LED, 5mm
13	1	LED3	Green LED, 5mm

## LS400-118 Bill of Materials

ITEM	QTY	REF DES	DESCRIPTION
1	1		WorkBench 4.0 PCB
2	1	J12	10-Position Stackable Female Header (Modified) J12
3	2	J10,J13	8-Position Stackable Female Header (Modified) J10, J13
4	1	J11	6-Position Stackable Female Header (Modified) J11
5	3		40-Pin Male Headers
			NOTE: Cut to length by the customer as follows:
		J1-J3	(3) 23-pins J1-J3
		J6	(1) 10 pins
		J4.J7	(2) 8-pins
		J5	(1) 6-pin
1	1	J8	(1) 3-pin male header
1	1	J9	(1) 3-pin male header
6	4		6mm spst Tactile Switch
7	1	C1	Capacitor, 0.1uF
8	1	DS1	DIP Socket, 8-pin
9	1	U1	IC, LogiSwitch LS118
10	3	R1-R3	Resistors, 430 ohms, .25W
11	1	LED1	Red LED 5mm
12	1	LED2	Yellow LED, 5mm
13	1	LED3	Green LED, 5mm