

BoM, for kit building assembly

ref	value	MODULE	Manufacturer	Mfr. P/N	Vendor	Vendor P/N
BT1	BATT_RTC	CR1632_2	MPD (Memory Protection De	BU1632SM-JJ-GTR	Digikey	BU1632SM-JJ-GCT-ND
--	CR1632	--	Panasonic - BSG	CR1632	DigiKey	P036-ND
C1	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C2	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C3	2u2	Tant	Nichicon	F921A225MPA	DigiKey	493-2331-1-ND
C4	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C5	2u2	c_0805	TDK Corporation	C2012Y5V1C225Z/0.8!	DigiKey	445-3459-1-ND
C6	100u	25V	Nichicon	UCL1E101MCL1GS	DigiKey	493-3937-1-ND
C7	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C8	47u	10V	Panasonic Electronic Compo	EEE-1AA470WR	DigiKey	PCE3875CT-ND
C9	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C10	22p	c_0805	Kemet	C0805C220J5GACTU	DigiKey	399-1113-1-ND
C11	22p	c_0805	Kemet	C0805C220J5GACTU	DigiKey	399-1113-1-ND
C12	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C13	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C14	100n	c_0805	Kemet	C0805C104K3RACTU	DigiKey	399-1168-1-ND
C15	1n	c_0805	Kemet	C0805C102K5RACTU	DigiKey	478-6218-1-ND
C16	10n	c_0805	Kemet	C0805C103K5RACTU	DigiKey	399-1158-1-ND
D1	LED	led_0805	OSRAM Opto Semiconductor	LG M67K-H1J2-24-Z	DigiKey	475-2730-1-ND
D2	LED	led_0805	OSRAM Opto Semiconductor	LG M67K-H1J2-24-Z	DigiKey	475-2730-1-ND
D3	RB886G	d_VMD2	Rohm Semiconductor	RB886GT2R	DigiKey	RB886GT2RCT-ND
D4	RB886G	d_VMD2	Rohm Semiconductor	RB886GT2R	DigiKey	RB886GT2RCT-ND
D5	MBRM110LT1G	do_457	ON Semiconductor	MBRM110LT1G	DigiKey	MBRM110LT1GOSCT-M
D6	LED	led_0805	OSRAM Opto Semiconductor	LG M67K-H1J2-24-Z	DigiKey	475-2730-1-ND
D7	SMBJ5.0CA-TR	diode-DO214AA	STMicroelectronics	SMBJ5.0CA-TR	DigiKey	497-3145-1-ND

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D8	MBRM110LT1G	do_457	ON Semiconductor	MBRM110LT1G	DigiKey	MBRM110LT1GOSCT-N
F1	nanoSMDC110F	f_1206	TE Connectivity	NANOSMDC110F-2	DigiKey	NANOSMDC110FCT-NI
F2	nanoSMDC110F	f_1206	TE Connectivity	NANOSMDC110F-2	DigiKey	NANOSMDC110FCT-NI
IC1	ATMEGA328-PU	DIP-28__300_ELL	Atmel	ATMEGA328-PU	DigiKey	ATMEGA328-PU-ND
DIP1	DIP	DIP	TE Connectivity	1-390261-9	DigiKey	A100210-ND
P1	BCM2835_GPIO	Header_GPIO	FCI	67996-130HLF	DigiKey	609-3456-ND
P2	GPU_JTAG	Header_GPU_JTAG	--	--	--	--
P3	LAN_JTAG	Header_GPU_JTAG	--	--	--	--
P4	PWM_SERVO	Header_Servo	Sullins Connector Solutions	PREC040SAAN-RC	DigiKey	S1012EC-40-ND
P5	5V_SERVO	Header_Servo	--	--	--	--
P6	GND_SERVO	Header_Servo	--	--	--	--
P7	GPS_UP501	Header_GPS	--	--	--	--
P8	FTDI	Header_FTDI	--	--	--	--
P9	ICSP	Header_ICSP	--	--	--	--
P10	V_IN	JACK_ALIM	CUI Inc	PJ-002B	DigiKey	CP-002B-ND
P11	U6_OE	Header_U6OE	--	--	--	--
P12	UUSB_B	USB_B_Micro	FCI	10118193-0001LF	DigiKey	609-4616-1-ND
Q1	FDN340P	SOT23-3	Fairchild Semiconductor	FDN340P	DigiKey	FDN340PCT-ND
R1	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R2	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R3	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R4	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R5	1k5	r_0805	Stackpole Electronics Inc	RMCF0805JT1K50	DigiKey	RMCF0805JT1K50CT-N
R6	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R7	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N

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ref	value	MODULE	Manufacturer	Mfr. P/N	Vendor	Vendor P/N
R8	1k5	r_0805	Stackpole Electronics Inc	RMCF0805JT1K50	DigiKey	RMCF0805JT1K50CT-N
R9	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R10	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R11	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
R12	1k	r_0805	Stackpole Electronics Inc	RMCF0805JT1K00	DigiKey	RMCF0805JT1K00CT-N
R13	10k	r_0805	Stackpole Electronics Inc	RMCF0805JT10K0	DigiKey	RMCF0805JT10K0CT-N
SD1	SD_CARD_MICR	CSD_Micro	?	?	seed	?
SW1	SW_PUSH	SW_SMD	Panasonic Electronic Compo	EVQ-P2602W	DigiKey	P12301SCT-ND
U1	LP2985-33DBVR	SOT23-5	Texas Instruments	LP2985-33DBVR	DigiKey	296-18476-1-ND
U2	74HC125	SO14E	ON Semiconductor	MC74HC125ADG	DigiKey	MC74HC125ADGOS-NI
U3	NCP1117ST50T3	SOT223	ON Semiconductor	NCP1117ST50T3G	DigiKey	NCP1117ST50T3GOSC
U4	DS3231N	DS3231	Maxim Integrated Products	DS3231S#	DigiKey	DS3231S#-ND
U5	LM358N	SO8E	STMicroelectronics	LM358ADT	DigiKey	497-1590-1-ND
U6	TXS0108	tssop-20	Texas Instruments	TXS0108EPWR	DigiKey	296-23011-1-ND
X1	CRYSTAL_2	Xtal_SMD2	AVX Corporation	CX3225GB16000D0HE	DigiKey	478-6622-1-ND

B2	I/O	I/O
B3	I/O	I/O
B15	I/O	I/O
G1	Logo_Wyolum	Logo-WL3
G2	Logo_Wyolum	Logo-WL3
G3	Logo_OH	OSHW_6mm
G4	Logo_OH	OSHW_6mm
PCB1	PCB	PCB
SHIELARDUINO_SHIELARDUINO_SHIELD_2_040pins		

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NOTE1	NOTE 2	QTY	RATE	AMOUNT	Position X	Position Y	Orientation	Layer
SMD Battery socket for CR1632		1	0.65	0.65				
Battery, CR1632	--	1	1.08	1.08				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Filter capacitor, Tantalum, Polarized, 10V		1	0.46	0.46				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Filter capacitor, Ceramic		1	0.13	0.13				
Filter capacitor, Al.		1	0.87	0.87				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Filter capacitor, Al.		1	0.43	0.43				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Capacitor for Crystal		1	0.07	0.07				
Capacitor for Crystal		1	0.07	0.07				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Decoupling capacitor, Ceramic		1	0.07	0.07				
Decoupling capacitor, Ceramic		1	0.05	0.05				
Decoupling capacitor, Ceramic		1	0.05	0.05				
LED, indicator, 5V0		1	0.22	0.22				
LED, indicator, 3V3		1	0.22	0.22				
Schottky Diode, low Vfwd, for GPS		1	0.46	0.46				
Schottky Diode, low Vfwd, for GPS		1	0.46	0.46				
Protection diode, barrel socket reverse	OPTIONAL	0	0.46	0.00				
LED, indicator, Bink		1	0.22	0.22				
Protection diode, transients, USB socket		1	0.58	0.58				

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NOTE1	NOTE 2	QTY	RATE	AMOUNT	Position X	Position Y	Orientation	Layer
Resistor		1	0.03	0.03				
Resistor		1	0.03	0.03				
Resistor		1	0.03	0.03				
Resistor		1	0.03	0.03				
Resistor		1	0.03	0.03				
Resistor		1	0.03	0.03				
Micro SD Card Scket		1		0.00				
Reset Switch		1	0.83	0.83				
Voltage Regulator, 3V3		1	0.62	0.62				
Voltage Level translaton		1	0.44	0.44				
Voltage Regulator, 5V0	OPTIONAL	0	0.53	0.00				
RTC Chip		1	8.82	8.82				
Buffer		1	0.46	0.46				
Voltage Level translaton		1	2.55	2.55				
Crystal		1	1.30	1.30				

breakout pad, RTC chip
breakout pad, RTC chip
breakout pad, RTC chip
wyolum logo, front
wyolum logo, back
OSHW logo, front
OSHW logo, back
PCB
Arduino stacking headers