

Comment	Description	Manufacturer Part Number	Octopart URL	Designator	Quantity	DNP
ESP32-WROVER-E (BMB)	Rx Txn Mod Wifi Pcb Trace SMD	ESP32-WROVER-E (BMB)	https://octopart.com/esp32-wrover-e+%28bmb%29-espressif+systems-108216292	A1	1	
Everlight EAAPMST3923A2	Ambient Light Sensor	EAAPMST3923A2		A2	1	
1uF	CAP CER 1UF 16V 10% XSR 0603		https://octopart.com/y0603yd105kat2a-avx+interconnect+5c2f+elco-46506197	C1, C2, C3, C4, C5, C10, C13	7	
Samsung Electro-Mechanics CL21A226MOC LRN C	Cap Ceramic 22uF 16V XSR 20% SMD 0805 85°C Cardboard T/R	CL21A226MOC LRN C		C6, C8, C12, C14	4	
Taiyo Yuden TMK105B1223KV-F	Multilayer Ceramic Capacitors (High dielectric typel), 25V, 0.022 uF, ± 10 %, 0402, XSR/R, RoHS	TMK105B1223KV-F	https://octopart.com/tmk105b1223kv-f-taiyo+yuden-23272753	C7	1	
Samsung CL05A104KASNNN C	Ceramic capacitor SMD 0402 100nF /25V XSR# K +- 10%, Samsung, RoHS	CL05A104KASNNN C	https://octopart.com/cl05a104ka5nnnc-samsung-19018960	C9, C11	2	
Sseed Studio 6010000200	Address Led Discret Serial R/g/b	6010000200	https://octopart.com/v601000200-seed+studio-88826571	D1, D2	2	
JST (JAPAN SOLDERLESS TERMINALS) B5B-XH-AU(F)(S/N)	CONN HEADER XH TOP SPOS 2.5MM	B5B-XH-AU(F)(S/N)	https://octopart.com/b5b-xh-a%28f%29%28sn%29-jst-3990208	J1	1	
Global Connector Technology BG302-05-A-L-G	Board to Board, Receptacle, 5 Position, 180W	BG302-05-A-L-G	https://octopart.com/vbg302-05-a-l-g-global+connector+technology-22009391	J2	1	
Amphenol ICC / FCI SFV24R-3STE1HLF	SFV24R-3STE1HLF-FFC/FFC Conn Rohs Compliant: Yes	SFV24R-3STE1HLF	https://octopart.com/sfv24r-3ste1hlff-amphenol+icc+%2F+fc-22289564	J3	1	
Adam Tech PH1-05-UA	Conn Unshrouded Header HDR 5 POS 2.54mm Solder ST Thru-Hole	PH1-05-UA	https://octopart.com/ph1-05-ua-adam+tech-7873130	J4, J5	2	DNP
10118194-0001LF	Single Port 5 Contact Horizontal Right Angle Micro B USB 2.0 Receptacle			K1	1	
MMBT3904	TRANS NPN 40V 0.2A SOT23		https://octopart.com/mmbt3904%2C215-nup+semiconductors-10477684	Q1, Q2	2	
Neperia 2N7002NXAKR	2N7002NXAK - 60 V, single N-channel Trench MOSFET	2N7002NXAKR	https://octopart.com/2n7002nxakr-neperia-103147780	Q3, Q4	2	
10k	RES SMD 10K OHM 5% 1/10W 0603	RC1608J103CS	http://octopart.com/vrc1608j103cs-samsung-2405586	R1, R2, R5, R6, R7, R8, R9, R14, R15, R16, R17, R18, R19	13	
27R	YAGEO (PHYCOMP) RC0603JR-0727RL RESISTOR, RC21 0603 27R		http://octopart.com/vrc0603jr-0727r-yageo-40953074	R3, R4	2	
Stackpole Electronics RMCF0402JT1K00	Res Thick Film 0402 1K Ohm 5% 0.063W(1/10W) ±100ppmY/C Pad SMD Automotive T/R	RMCF0402JT1K00	https://octopart.com/vrmcf0402jt1k00-stackpole+electronics-19212695	R10, R13, R20	3	
Ohmite KDV12DR200ET	0.2 Ohm 1206 0.5% 0.5W Rohs Compliant: Yes	KDV12DR200ET	https://octopart.com/vkdv12dr200et-ohmite-103743653	R11, R12	2	
C&K Components PT5636 SL50 SMTR LFS	Switch Tactile N.O. SPST Rectangular Button Gull Wing 0.05A 12VDC 1.27H SMD T/R	PT5636 SL50 SMTR LFS	https://octopart.com/vpts636-sl50+mtr+lfs-c%26k+components-100131649	SW1	1	
Diodes AP2112K-3.3TRG1	AP2112 Series 0.6 A 3.3 V Fixed Output SMT LDO Linear Regulator - SOT23-5	AP2112K-3.3TRG1	http://octopart.com/vap2112k-3.3trg1-diodes+inc-30854557	U1	1	
MICS392	MICS392 Series 2.8 / 1.8 V 150 mA Surface Mount Dual LDO Regulator - TDFN-6	MICS392-MGWM-T-R		U2	1	
Future Technology Devices International (FTDI) FT231XS-R	USB Full Speed to Full Handshake UART with USB Charger Detection	FT231XS-R	http://octopart.com/vft231xs-r-ftdi-22061507	U3	1	
STMicroelectronics STSPIN220	STSPIN220 Series 10 V Quad Surface Mount Stepper Motor Driver - VQFPN-16	STSPIN220	https://octopart.com/vstspin220-stmicroelectronics-74146215	U4	1	
ICM-20948	ICM-20948 - World's Lowest Power 9-Axis MEMS MotionTracking Device	ICM-20948	https://octopart.com/vicm-20948-invensense-73011870	U5	1	
Analog Devices LTC4311CSC#TRPBF	I2C Logic Buffer 1.8V/2.5V/3.3V/5V Automotive 6-Pin SC-70 T/R			U6	1	
Diodes Inc. PI4IOES	Interface IO Expand	PI4IOESV96248ZLEX	https://octopart.com	U7	1	

ESP32
and Cam

Antenna Keep Out

Shelly V0.1 Dev Kit

Light
& Prox

Ilia & Saad
LEDs

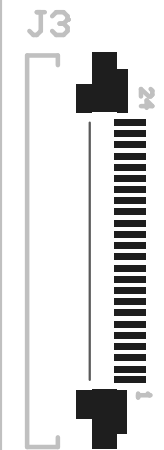
USB <-> Serial

IO Expander

2V8 & 1V8

3V3

Stepper Driver



R9

C14

R20

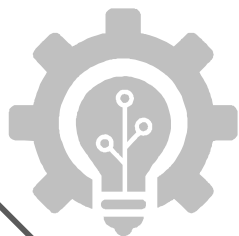
C10

R16

U6

R17

I2C Pull-Ups



IMU

R18

Q4

R15

Q3

Mag

Accel

Y

X

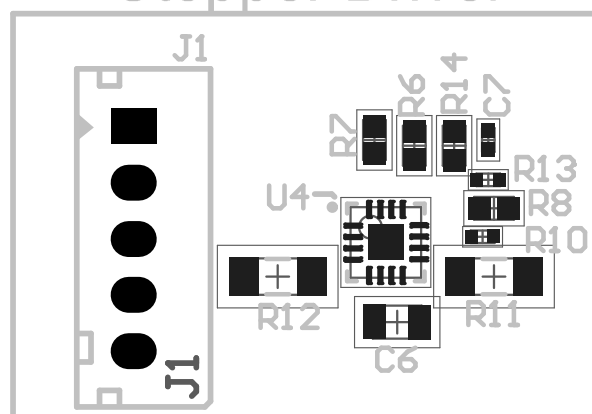
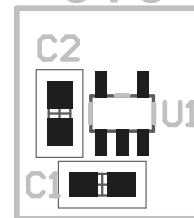
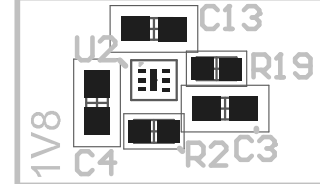
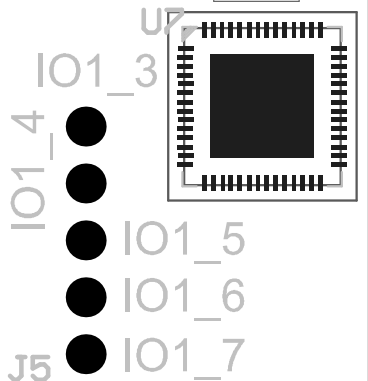
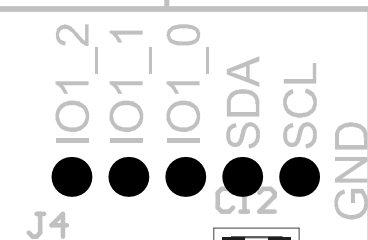
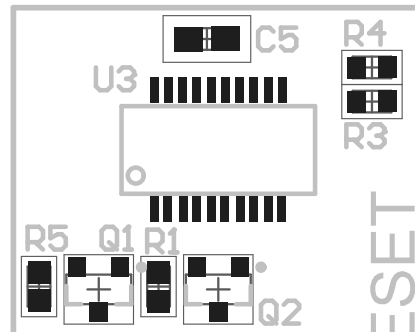
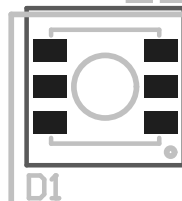
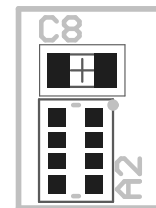
Gyro RH Rule

Z

U5

C9

C11



5V USB J2

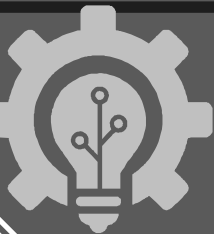
ToF conn.

ESP32
and Cam.

A1

Antenna Keep Out

C14



IMU

Accel
Gyro RH Rule
Mag
Z
Y
X
R18
R15
Q4
Q3
C9
C11
U5

I2C Pull-Ups

Shelly V0.1 Dev Kit

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USB <-> Serial

IO Expander

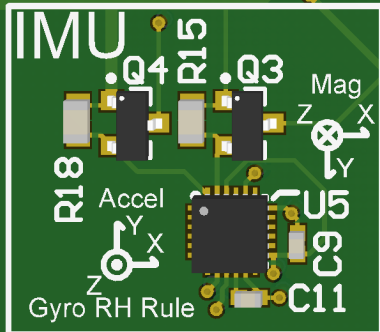
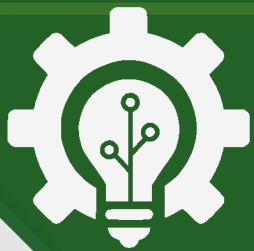
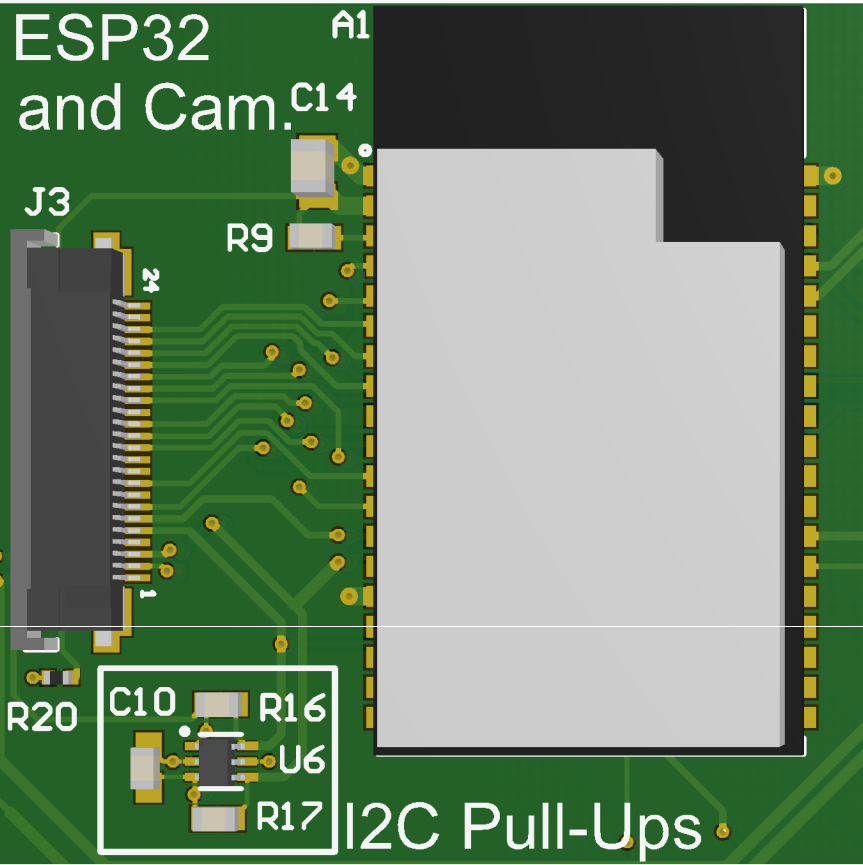
2V8 & 1V8

3V3

Stepper Driver

ToF conn.

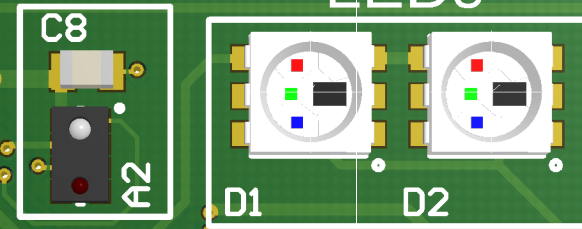
ESP32
and Cam.



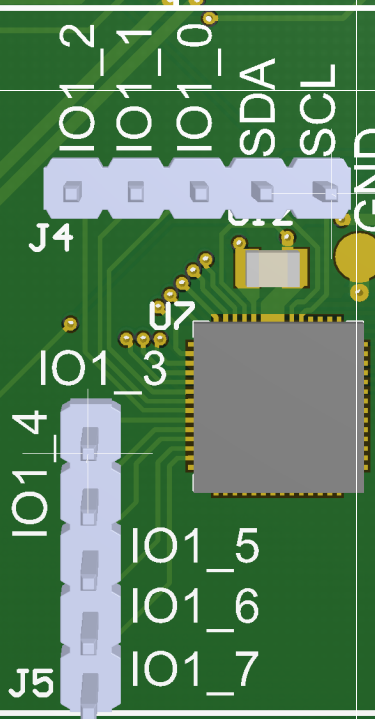
Shelly V0.1 Dev Kit

Light
& Prox

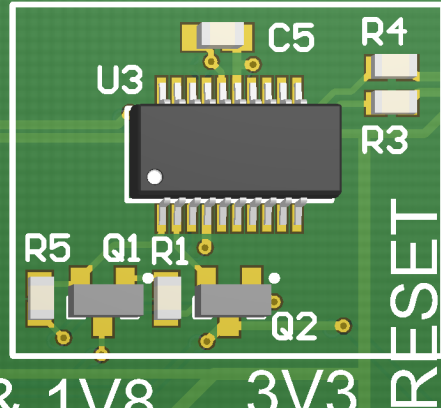
Ilia & Saad
LEDs



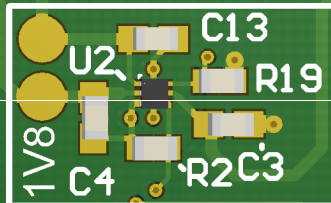
IO Expander



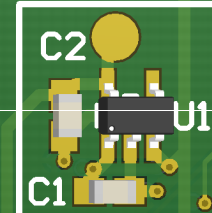
USB <-> Serial



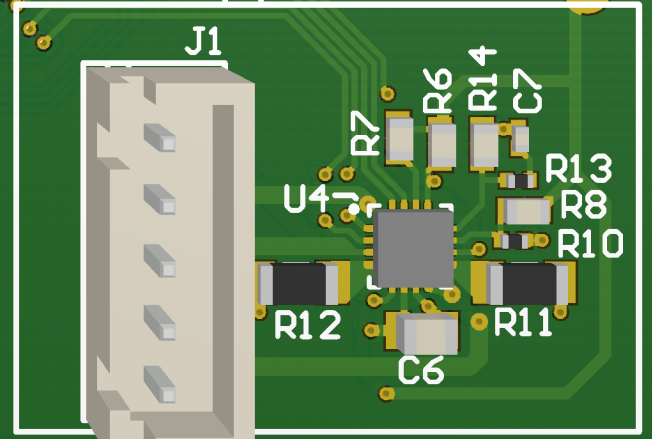
2V8 & 1V8



3V3



Stepper Driver



ToF conn.

