Adeept Self-Balancing Robot Kit — 2WDBalanceDriveBoard.SchDoc

Voltage annotations: 2.5V, 1.52V, 7.6V, 1.42V, 7.1V, 1.3V, 6.5V, 1.2V, 6V, Vin*0.2

Components and labels:

- Vin, R1 2K, R2 36K, R3 27K, T1 TL431, R4 3K, R5 3K, R6 3K, R7 33K, R8 18K, R9 18K, GND
- U4 LM324: 4OUT(14), 4IN+(12), 4IN-(13), 3OUT(8), 3IN+(10), 3IN-(9), VCC(4), GND(11), 2OUT(7), 2IN+(5), 2IN-(6), 1OUT(1), 1IN+(3), 1IN-(2)
- RN4A 10K, RN4B 10K, RN4C 10K, RN4D 10K
- LED1 Vin, LED2, LED3, LED4
- P2 Header 6X2 (5V), pins 1–12, GND
- P1 Header 2, GND
- SW SW-SPDT, 2, 3, 1, Vin
- motorA Header 6: AO2(1), D2(3), AO1(6), 5V, GND
- motorB Header 6: BO1(1), D4(3), BO2(6), 5V, GND
- P3 Adeept Blue Tooth Module: TX(1), RX(2), 5V(3), 4, GND
- P5 Adeept Ultrasonic Module: 5V(1), D3(2), D5(3), 4, GND
- POW 8x1F: IOREF, RESET, 5V, 3.3V, GND
- JLOW 8x1F: D7, D6, D5, D4, D3, D2, TX, RX
- JHIGH 10x1F: AREF, D13, D12, D11, D10, D9, D8
- JANALOG 6x1F: A0, A1, A2, A3, A4, A5
- AREF, GND
- P4 Adeept ESP8266 Module: RX, TX, 3.3V, GND, pins 8 7 6 5 4 3 2 1
- MPU6050: 5V(1), A5, A4, GND, pins
- TB6612 (Header 8 / Header 8): Vin, GND, 5V, AO1, AO2, BO2, BO1, D9, D6, D7, D8, D13, D12, D10, GND
- C3 Cap 33n/25nF
- R10 2K/1%, R11 10.5K/1%, GND
- U2 GS2678: VIN(5), FB(2), SW(3), GND, EN(4)
- C1 50V 470uF, C4 Cap 105, Vin, GND
- L0 33uH/5A/SLF12565T-330M2R8-PF Inductor
- D0 SK54/1N5824
- C2 50V 470uF, GND
- 5V, R12 1KΩ, Power LED, GND

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Altium

Comment	Description	Designator	Footprint	LibRef	Quantity
50V	Polarized Capacitor (Radial)	C1, C2	470uF/35V	Cap Pol1	2
Cap	Capacitor	C3, C4	0805	Cap	2
SK54/1N5824	Default Diode	D0	SS54	Diode	1
6x1F	Header, 6-Pin	JANALOG	HDR1X6	Header 6	1
10x1F	Header, 10-Pin	JHIGH	HDR1X10	Header 10	1
8x1F	Header, 8-Pin	JLOW, POW	HDR1X8	Header 8	2
Inductor	Inductor	L0	33uH/5A	Inductor	1
LED3	Typical BLUE SiC LED	LED1, LED2, LED3, LED4	LED0805	LED3	4
Header 6	Header, 6-Pin	motorA, motorB	HDR1X6	Header 6	2
Header 8	Header, 8-Pin	MPU6050, P111, P112	HDR1X8	Header 8	3
Header 2	Header, 2-Pin	P1	FS250-3.5-2P正?	Header 2	1
Header 6X2	Header, 6-Pin, Dual row	P2	HDR2X6	Header 6X2	1
Adeept Blue Tooth Module	Header, 4-Pin	P3	HDR1X4	Header 4	1
Adeept ESP8266 Module	Header, 4-Pin, Dual row	P4	HDR2X4	Header 4X2	1
Adeept Ultrasonic Module	Header, 4-Pin	P5	HDR1X4	Header 4	1
LED	Typical INFRARED GaAs LED	Power	LED0805	LED0	1
Res2	Resistor	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	0805	Re, Res2	12
10K		RN4	0603排阻	4*10K	1
SW-SPDT	SPDT Subminiature Toggle Switch, Right Angle Mounting, Vertical Actuation	SW	电源开关	SW-SPDT	1
TL431		T1	SOT23	T	1
GS2678		U2	GS2678	GS2678	1
LM324		U4	SO14	LM3	1