
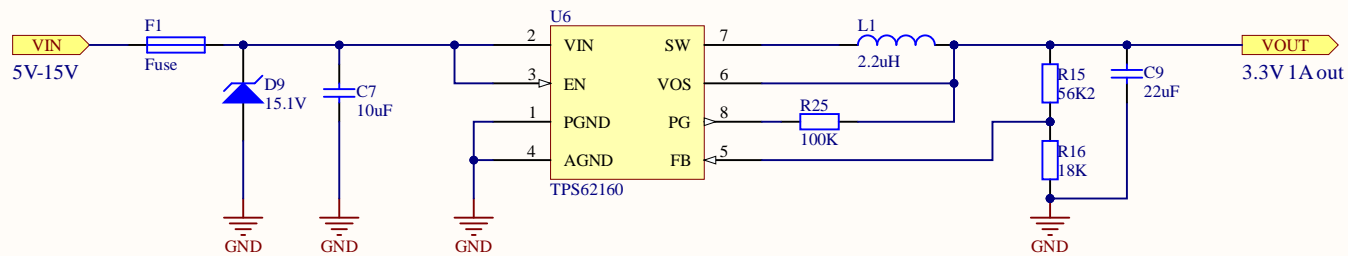
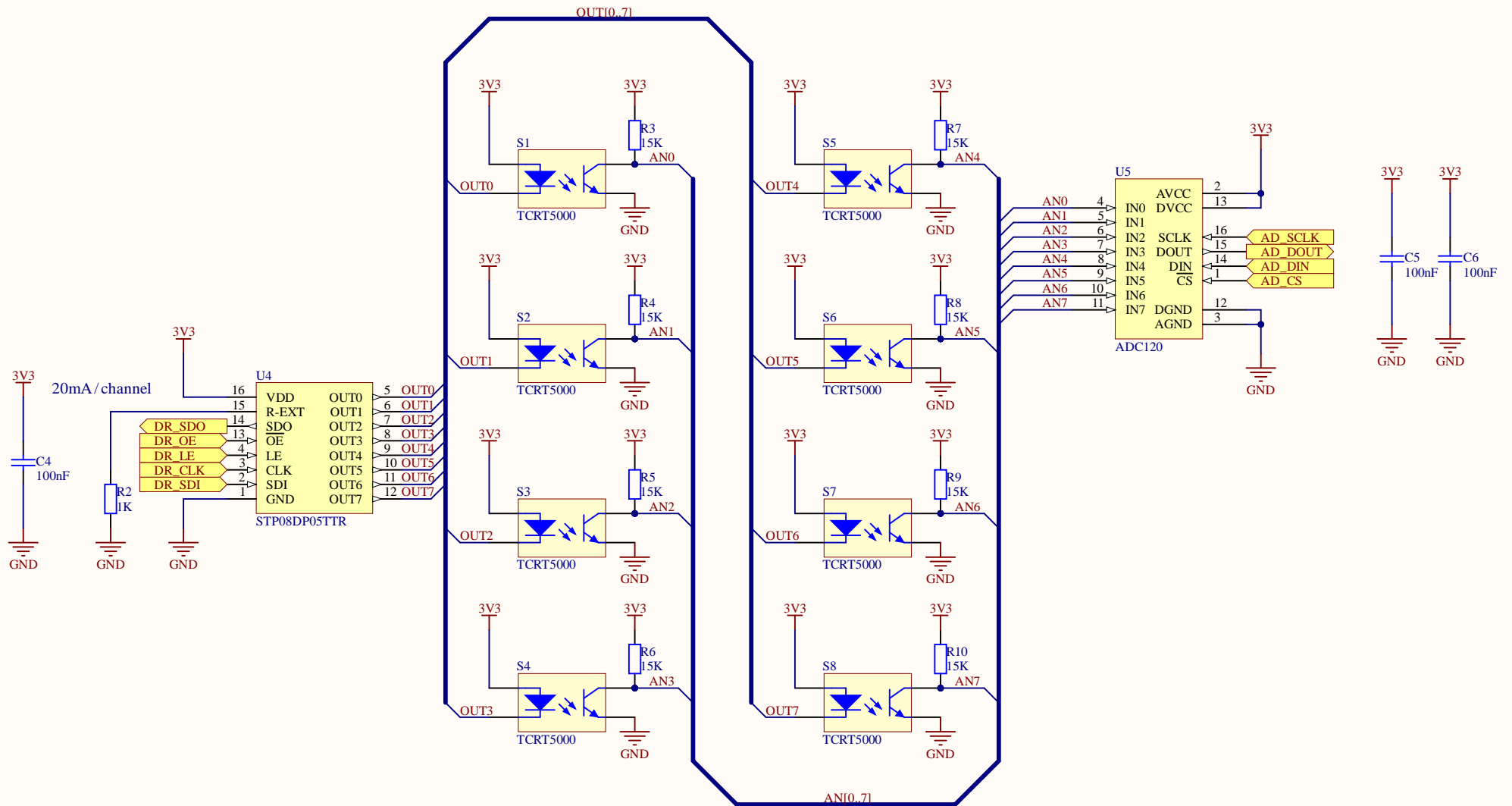



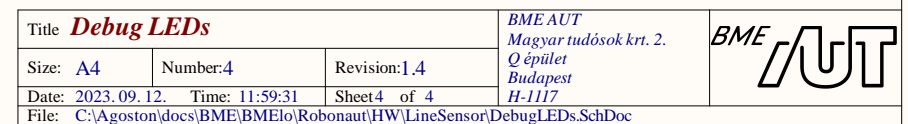
Title <i>Main Sheet</i>			<i>BME AUT</i> Magyar tudósok krt. 2. Q épület Budapest H-1117	
Size: A4	Number: 1	Revision: 1.4		
Date: 2023. 09. 12.	Time: 11:59:30	Sheet 1 of 4		
File: C:\Agoston\docs\BME\BMElo\Robonaut\HW\LineSensor\MainSheet.SchDoc				

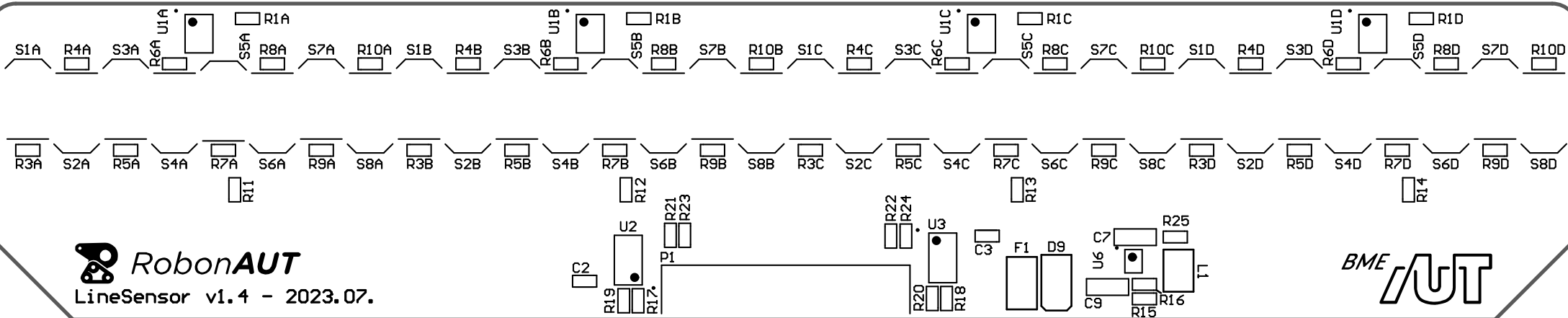


Title <i>Power</i>			<i>BME AUT</i> Magyar tudósok krt. 2. Q épület Budapest H-1117	<i>BME</i> AUT
Size: A4	Number: 2	Revision: 1.4		
Date: 2023.09.12.	Time: 11:59:30	Sheet 2 of 4		
File: C:\Agoston\docs\BME\BMElo\Robonaut\HW\LineSensor\Power.SchDoc				

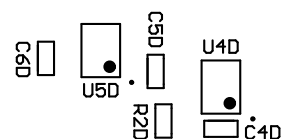



Title <i>Sensors</i>			<i>BME AUT</i> Magyar tudósok krt. 2. Q épület Budapest H-1117	<i>BME</i> 
Size: A4	Number:3	Revision:1.4		
Date: 2023.09.12.	Time: 11:59:31	Sheet 3 of 4		
File: C:\Agoston\docs\BME\BMElo\Robonaut\HW\LineSensor\Sensors.SchDoc				

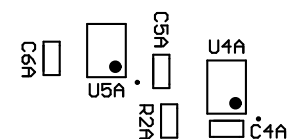
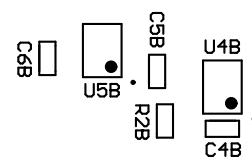
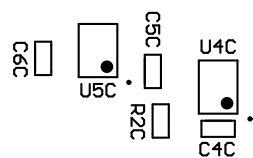




D8D D7D D6D D5D D4D D3D D2D D1D D8C D7C D6C D5C D4C D3C D2C D1C D8B D7B D6B D5B D4B D3B D2B D1B D8A D7A D6A D5A D4A D3A D2A D1A



 **RobonAUT**
LineSensor v1.4 - 2023.07.



BME /UT

B

The top view of the PCB layout shows a rectangular board with a width of 13.50mm and a total length of 45.75mm. The layout includes a top row of 24 circular vias labeled D8D through D1A. Below this, there are four groups of components, each consisting of a microcontroller (U), a resistor (R), and a capacitor (C). The components are labeled as follows: U5D, R2D, C4D, C6D, U5C, R2C, C4C, C6C, U5B, R2B, C4B, C6B, U5A, R2A, C4A, C6A. The dimensions 45.75mm and 13.50mm are indicated in red. A 7.50mm dimension is also shown in red, indicating the distance from the right edge to the center of the rightmost component group.

PROPRIETARY AND CONFIDENTIAL

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	TITLE				
		DIMENSIONS ARE IN INCHES	DRAWN		2023. 09. 12					
		TOLERANCES:	CHECKED							
		FRACTIONAL±	ENG APPR.							
		ANGULAR: MACH± BEND ±	MFG APPR.							
		TWO PLACE DECIMAL ±				SIZE DWG. NO.				
		THREE PLACE DECIMAL ±								
		INTERPRET GEOMETRIC	Q.A.							
		TOLERANCING PER:	COMMENTS:							
		MATERIAL				SCALE: 1:1 WEIGHT: SHEET 1 OF 2				
NEXT ASSY	USED ON	FINISH								
APPLICATION		DO NOT SCALE DRAWING								

B

Bill Of Materials

Line #	Designator	Reference	Quantity	Footprint	Supplier	Name
1	C1A, C1B, C1C, C1D, C2, C3, C4A, C4B, C4C, C4D, C5A, C5B, C5C, C5D, C6A, C6B, C6C, C6D	82-13-28	18	FP_0603_CAP_080	Lomex	100nF 0603 10% 50V X7R 0603B104K500NT (FNG)
2	C7	82-07-90	1	FP_1206_CAP_125	Lomex	10uF 1206 10% 25V X5R CL31A106KAHNNNE (SAM)
3	C9	82-08-50	1	FP_1206_CAP_125	Lomex	22uF 1206
4	D1A, D1B, D1C, D1D, D2A, D2B, D2C, D2D, D3A, D3B, D3C, D3D, D4A, D4B, D4C, D4D, D5A, D5B, D5C, D5D, D6A, D6B, D6C, D6D, D7A, D7B, D7C, D7D, D8A, D8B, D8C, D8D	95-03-80	32	FP_0805_LED_GREEN	Lomex	1608 GREEN 525nm 780mcd FYLS-0603PGC (FYL) W.CLEAR 1.6x0.8x0.8mm 0603 130° PURE
5	D9	96-04-58	1	FP_SMB	Lomex	15.1V Ubr 600W UNIDIR. 13V Urwm SMBJ13A (LFS) DO-214AA (SMB) "LG"
6	F1	44-04-71	1	FP_MULTIFUSE	Lomex	1.25A 24V 1812L075/24DR POLYFUSE SMD 1812 (LFS) "LF075-24"
7	L1	3386945	1	FP_IND_VLS	Farnell	2.2uHy 6.5x6.5mm 20% 0.05R SS06043R3MLB (ABC)
8	P1	43-01-11	1	CONNECTOR-20P	Lomex	SZAL.KABEL 20 P APA 90° BHR-20 (T-T)
9	R1A, R1B, R1C, R1D	80-13-52	4	FP_0603_RES	Lomex	6K20 0603 5% CR-03JL7---3K9 0.1W (VIK)
10	R2A, R2B, R2C, R2D, R11, R12, R13, R14	81-10-26	8	FP_0603_RES	Lomex	1K00 0603 5% WR06X102JTL 0.1W (WAL)
11	R3A, R3B, R3C, R3D, R4A, R4B, R4C, R4D, R5A, R5B, R5C, R5D, R6A, R6B, R6C, R6D, R7A, R7B, R7C, R7D, R8A, R8B, R8C, R8D, R9A, R9B, R9C, R9D, R10A, R10B, R10C, R10D	81-10-40	32	FP_0603_RES	Lomex	15K0 0603 5% CR-03JL7---15K 0.1W (VIK)
12	R15	2908325	1	FP_0603_RES	Farnell	56K2 0603 0.5% RT0603DRE07 30K9 0.1W (YAG) THIN FILM
13	R16	3790949	1	FP_0603_RES	Farnell	18K0 0603 1% CR-03FL7---10K 0.1W (VIK) "01C"
14	R17, R18, R19, R20, R21, R22, R23, R24, R25	81-10-50	9	FP_0603_RES	Lomex	100K 0603 5% CR-03JL7--100K 0.1W (VIK), 100K 0603 Resistor
15	S1A, S1B, S1C, S1D, S2A, S2B, S2C, S2D, S3A, S3B, S3C, S3D, S4A, S4B, S4C, S4D, S5A, S5B, S5C, S5D, S6A, S6B, S6C, S6D, S7A, S7B, S7C, S7D, S8A, S8B, S8C, S8D	782-TCRT5000	32	TCRT5000	Mouser	TCRT5000 - Reflective Photo Interrupter, Phototransistor
16	U1A, U1B, U1C, U1D, U4A, U4B, U4C, U4D	511-STP08CP05TTR	8	TSOP65P640X120-16M	Mouser	STP08CP05TTR
17	U2, U3	2463767	2	TSOP65P640X110-20N	Farnell	74HC244PW,118
18	U5A, U5B, U5C, U5D	511-ADC120IPT	4	TSOP65P640X120-16N	Mouser	ADC120IPT
19	U6	595-TPS62160DGKR	1	VSSOP-8	Mouser	TPS62160

1

1

2

2

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROPRIETARY AND CONFIDENTIAL			UNLESS OTHERWISE SPECIFIED:		NAME	DATE	TITLE		
			DIMENSIONS ARE IN INCHES	DRAWN		2023. 09. 12			
			TOLERANCES:	CHECKED					
			FRACTIONAL±	ENG APPR.					
			ANGULAR: MACH± BEND ±	MFG APPR.					
			TWO PLACE DECIMAL ±	Q.A.			SIZE DWG. NO.		
			THREE PLACE DECIMAL ±	COMMENTS:					
			INTERPRET GEOMETRIC TOLERANCING PER:						
			MATERIAL						
		NEXT ASSY	USED ON	FINISH	SCALE: 1:1 WEIGHT: SHEET 2 OF 2				
	APPLICATION		DO NOT SCALE DRAWING						