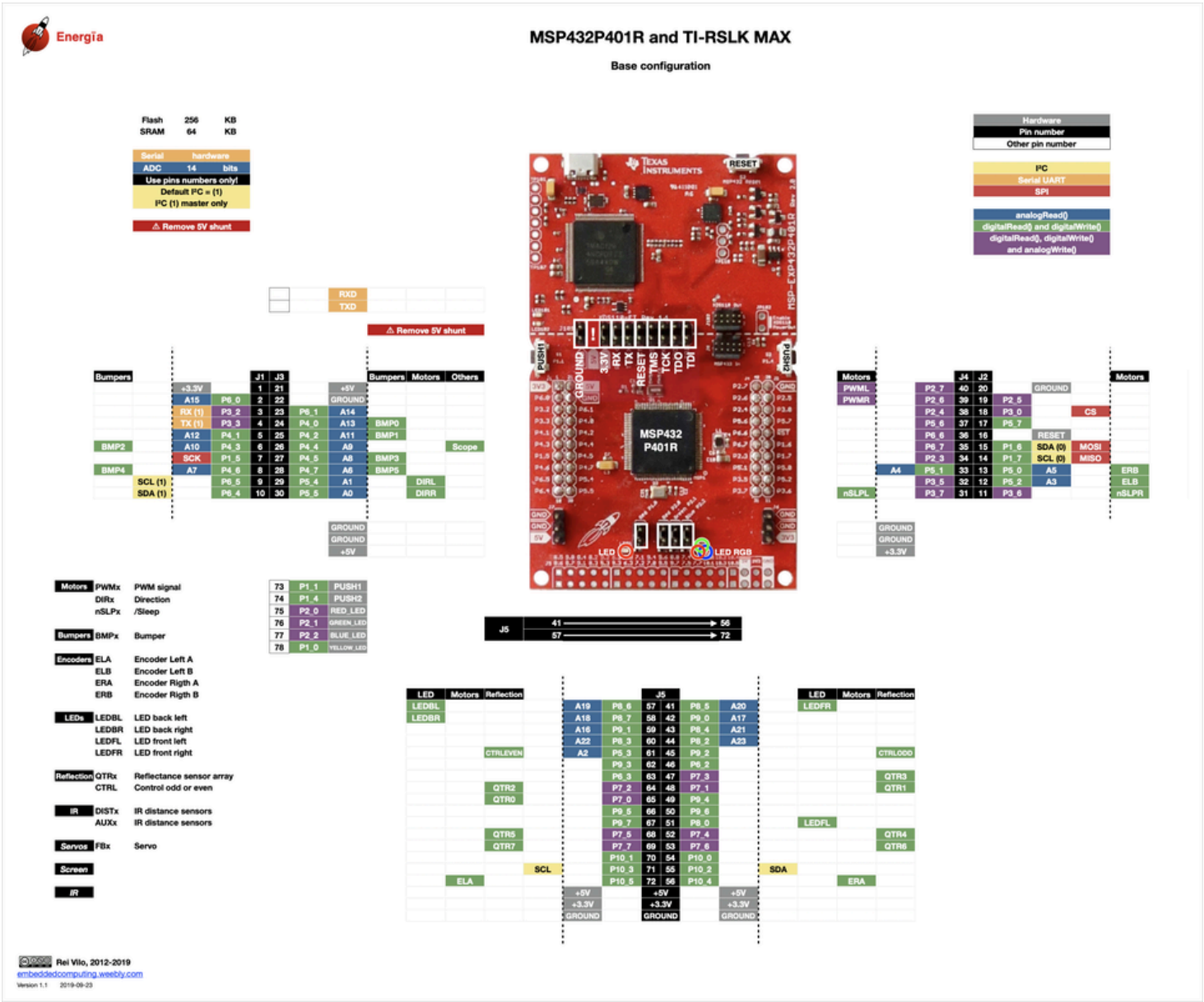
TI-RSLK-MAX Pins Maps

Four pins maps: base and extended configuration, base configuration, extended configuration and main board.

Click to enlarge



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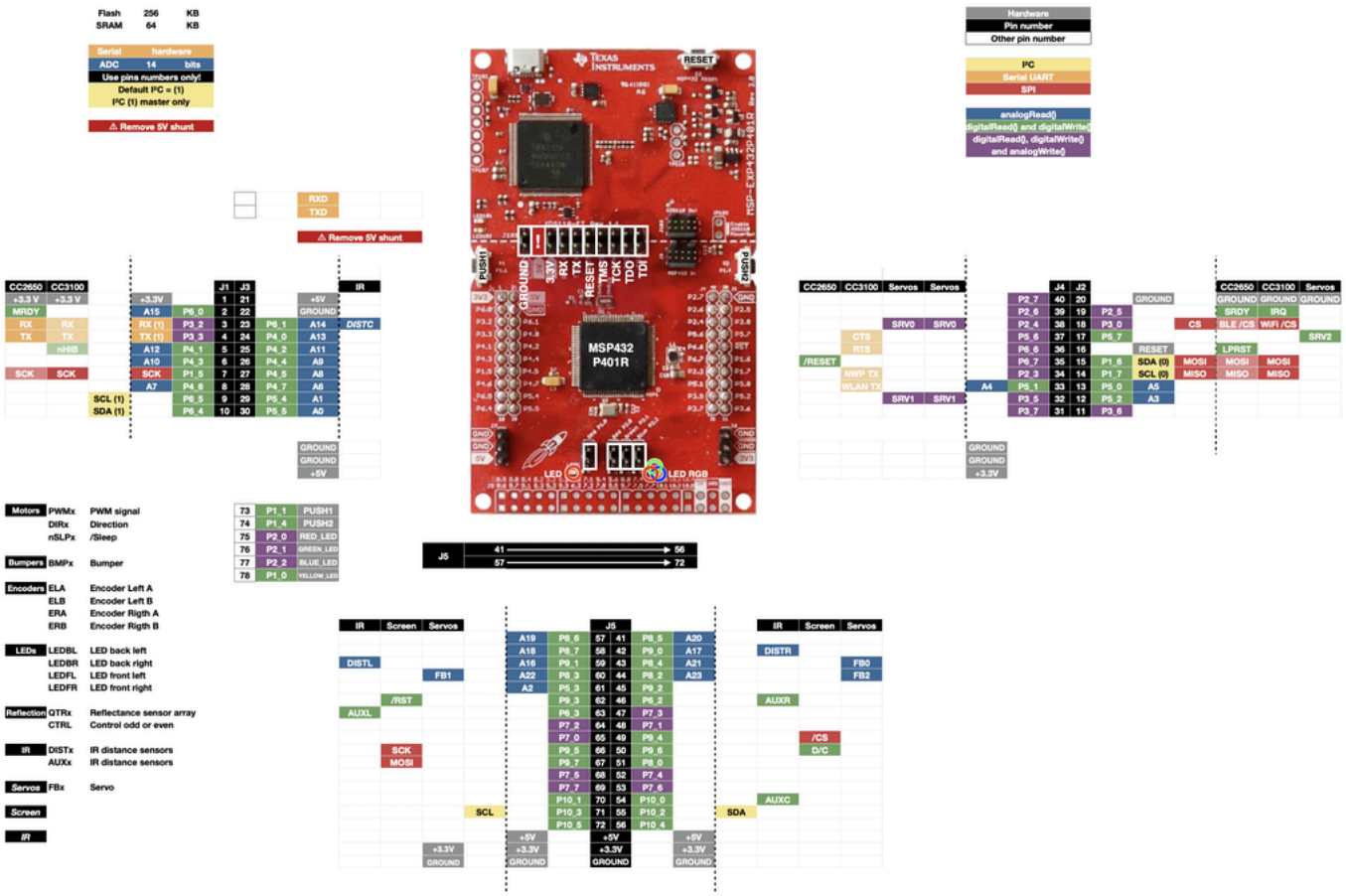
MSP432P401R and TI-RSLK MAX

Extended configuration



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MSP432P401R and TI-RSLK MAX

Base and extended configuration

Flash	256	KB
SRAM	64	KB

Serial	hardware
ADC	14 bits
Use pins numbers only!	
Default I²C = (1)	
I²C (1) master only	

⚠ Remove 5V shunt

Hardware
Pin number
Other pin number

I²C
Serial UART
SPI

analogRead()
digitalRead() and digitalWrite()
digitalRead(), digitalWrite() and analogWrite()

								RXD	
								TXD	

⚠ Remove 5V shunt

Base		Extended							
Bumpers	CC2650	CC3100		J1	J3				
	+3.3V	+3.3V		+3.3V	1	21			+5V
	MRDY			A15	P6_0	2	22		GROUND
	RX	RX		RX (1)	P3_2	3	23	P6_1	A14
	TX	TX		TX (1)	P3_3	4	24	P4_0	A13
		nHIB		A12	P4_1	5	25	P4_2	A11
BMP2				A10	P4_3	6	26	P4_4	A9
	SCK	SCK		SCK	P1_5	7	27	P4_5	A8
BMP4				A7	P4_6	8	28	P4_7	A6
	SCL (1)				P6_5	9	29	P5_4	A1
	SDA (1)				P6_4	10	30	P5_5	A0

Base			Extended
Bumpers	Motors	Others	IR
			DISTC
BMP0			
BMP1			
		Scope	
BMP3			
BMP5			
	DIRL		
	DIRR		
GROUND			
GROUND			
+5V			

Extended		Base
CC2650	CC3100	Motors
		PWML
		PWMR
	CTS	
	RTS	
/RESET	/RESET	
	WKP TX	
	WLAN TX	
		nSLPL
		GROUND
		GROUND
		+3.3V

			J4	J2			Base	Extended		
							Motors	CC3100	CC2650	Servos
	P2_7	40	20		GROUND			GROUND	GROUND	GROUND
	P2_6	39	19	P2_5				IRQ	SRDY	
	P2_4	38	18	P3_0		CS		WiFi /CS	BLE /CS	
	P5_6	37	17	P5_7						SRV2
	P6_6	36	16		RESET				LPRST	
	P6_7	35	15	P1_6	SDA (0)	MOSI		MOSI	MOSI	
	P2_3	34	14	P1_7	SCL (0)	MISO		MISO	MISO	
A4	P5_1	33	13	P5_0	A2		ERB			
	P3_5	32	12	P5_2	A3		ELB			
	P3_7	31	11	P3_6			nSLPR			

Motors	PWMx	PWM signal
	DIRx	Direction
	nSLPx	/Sleep
Bumpers	BMPx	Bumper
Encoders	ELA	Encoder Left A
	ELB	Encoder Left B
	ERA	Encoder Rigth A
	ERB	Encoder Rigth B
LEDs	LEDBL	LED back left
	LEDBR	LED back right
	LEDFL	LED front left
	LEDFR	LED front right
Reflection	QTRx	Reflectance sensor array
	CTRL	Control odd or even
IR	DISTx	IR distance sensors
	AUXx	IR distance sensors
Servos	FBx	Servo
Screen		
IR		

73	P1_1	PUSH1
74	P1_4	PUSH2
75	P2_0	RED_LED
76	P2_1	GREEN_LED
77	P2_2	BLUE_LED
78	P1_0	YELLOW_LED

J5: 41 → 56, 57 → 72

Base			Extended		
LED	Motors	Reflection	Servos	Screen	IR
LEDBL					
LEDBR					
			FB1		DISTL
		CTRLEVEN		IRST	
					AUXL
		QTR2			
		QTR0			
				SCK	
				MOSI	
		QTR5			
		QTR7			
					SCL
	ELA				
			+5V		
			+3.3V		
			GROUND		

				J5				
				57	41			
A19	P6_6			58	42	P6_5		A20
A18	P6_7			59	43	P9_0		A17
A16	P9_1			60	44	P8_4		A21
A22	P8_3			61	45	P8_2		A23
A2	P5_3			62	46	P9_2		
	P9_3			63	47	P7_3		
	P8_3			64	48	P7_1		
	P7_2			65	49	P9_4		
	P7_0			66	50	P9_6		
	P9_5			67	51	P8_0		
	P9_7			68	52	P7_4		
	P7_5			69	53	P7_6		
	P7_7			70	54	P10_0		
	P10_1			71	55	P10_2		
	P10_3			72	56	P10_4		
	P10_5		+5V					
+5V			+3.3V					+5V
+3.3V			GROUND					+3.3V
GROUND								GROUND

Base			Extended		
LED	Motors	Reflection	IR	Screen	Servos
LEDFR					
			DISTR		
					FB0
					FB2
		CTRLODD			
			AUXR		
		QTR3			
		QTR1			
				ICS	
				D/C	
LEDFL					
		QTR4			
		QTR6			
			AUXC		
					SDA
	ERA				

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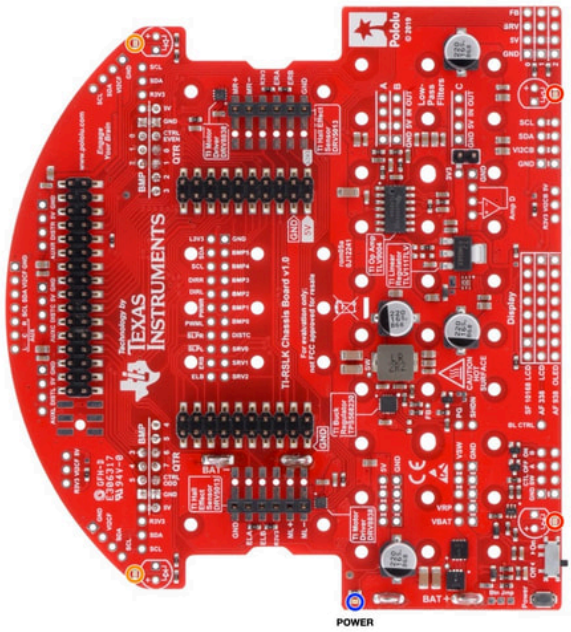
TI-RSLK MAX Main Board

Extended configuration



Flash	256	KB
SRAM	64	KB

Serial	hardware
ADC	14 bits

Use pins numbers only!
Default I²C = (1)
I²C (1) master only

⚠ Remove 5V shunt

Robot	R +3.3V	R +5V
LaunchPad	+3.3 V	+5V

Hardware
Pin number
Other pin number

I²C
Serial UART
SPI

analogRead()
digitalRead() and digitalWrite()
digitalRead(), digitalWrite() and analogWrite()

LED	
LEDFR	41
GROUND	

GROUND	
R +3.3V	
SDA (1)	10
SCL (1)	9

SCL (1)	9
SDA (1)	10
R +3.3V	
R +5V	

IR	
GROUND	
R +5V	
DISTR	42
AUXR	46

IR	
GROUND	
R +3.3V	
SDA (1)	10
SCL (1)	9
AUXR	46
AUXC	54
AUXL	63

IR	
GROUND	
R +5V	
DISTC	23
AUXC	54

IR	
GROUND	
R +5V	
DISTL	59
AUXL	63

R +5V	
R +3.3V	
R +3.3V	

GROUND	
R +3.3V	
SDA (1)	10
SCL (1)	9

R +5V	
R +3.3V	
SDA (1)	10
SCL (1)	9

LED	
LEDFL	51
GROUND	

Op-Amp			
OUT	A	B	C
IN	A	B	C
R +5V			
GROUND			

R +3.3V	GROUND	
	OUT	D
	IN-	D
	IN+	D

Servos					
FB0	43	FB1	60	FB2	44
SRV0	38	SRV1	32	SRV2	17
R +5V		R +5V		R +5V	
GROUND		GROUND		GROUND	

LED	
LEDBR	58
GROUND	

SCL (1)	9
SDA (1)	10
R +3.3V	
GROUND	

R +5V	
R +3.3V	
R +3.3V	

	Screen	
SF10166	AF338	AF938
R +5V	GROUND	GROUND
SCK 66	R +3.3V	R +5V
MOSI 67	SCK 66	
D/C 50	MOSI 67	/CS 49
/RST 62	D/C 50	/RST 62
/CS 49	/CS 49	D/C 50
GROUND	/RST 62	SCK 66
R +3.3V	BL=3.3 V	MOSI 67

R +5V	GROUND	
R +5V	GROUND	
R +5V	GROUND	
R +5V	GROUND	

VSW	GROUND	
VSW	GROUND	
VSW	GROUND	
VRP	GROUND	
VBAT	GROUND	

ON	B
OFF	A
CTL	SW
GROUND	GROUND

LED	
LEDBL	57
GROUND	

ON
OFF
POWER

VSW reverse protected switched battery voltage
VRP reverse protected battery voltage before power switch
VBAT direct battery voltage (no reverse protection)
R +5V regulated 5V output of TI-RSLK chassis board
R +3.3V regulated 3.3V output of TI-RSLK chassis board

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