J1 Pin	GPIO	Analog Function / GPIO AMSEL	On-board Function	Tiva C Series MCU Pin	GPIOPCTL Register Setting										
					1	2	3	4	5	6	7	8	9	14	15
1.01	3.3 V														
1.02	PB5	AIN11	–	57	–	SSI2Fss	–	M0PWM3	–	–	T1CCP1	CAN0Tx	–	–	–
1.03	PB0	USB0ID	–	45	U1Rx	–	–	–	–	–	T2CCP0	–	–	–	–
1.04	PB1	USB0VBUS	–	46	U1Tx	–	–	–	–	–	T2CCP1	–	–	–	–
1.05	PE4	AIN9	–	59	U5Rx	–	I2C2SCL	M0PWM4	M1PWM2	–	–	CAN0Rx	–	–	–
1.06	PE5	AIN8	–	60	U5Tx	–	I2C2SDA	M0PWM5	M1PWM3	–	–	CAN0Tx	–	–	–
1.07	PB4	AIN10	–	58	–	SSI2Clk	–	M0PWM2	–	–	T1CCP0	CAN0Rx	–	–	–
1.08	PA5	–	–	22	–	SSI0Tx	–	–	–	–	–	–	–	–	–
1.09	PA6	–	–	23	–	–	I2C1SCL	–	M1PWM2	–	–	–	–	–	–
1.10	PA7	–	–	24	–	–	I2C1SDA	–	M1PWM3	–	–	–	–	–	–

J2 Pin	GPIO	Analog Function / GPIO AMSEL	On-board Function	Tiva C Series MCU Pin	GPIOPCTL Register Setting										
					1	2	3	4	5	6	7	8	9	14	15
2.01	GND														
2.02	PB2	–	–	47	–	–	I2C0SCL	–	–	–	T3CCP0	–	–	–	–
2.03	PE0	AIN3	–	9	U7Rx	–	–	–	–	–	–	–	–	–	–
2.04	PF0	–	USR_SW2/WAKE (R1)	28	U1RTS	SSI1Rx	CAN0Rx	–	M1PWM4	PhA0	T0CCP0	NMI	C0o	–	–
2.05	RESET														
2.06	PB7	–	–	4	–	SSI2Tx	–	M0PWM1	–	–	T0CCP1	–	–	–	–
2.06	PD1	AIN6	Connected for MSP430 Compatibility (R10)	62	SSI3Fss	SSI1Fss	I2C3SDA	M0PWM7	M1PWM1	–	WT2CCP1	–	–	–	–
2.07	PB6	–	–	1	–	SSI2Rx	–	M0PWM0	–	–	T0CCP0	–	–	–	–
2.07	PD0	AIN7	Connected for MSP430 Compatibility (R9)	61	SSI3Clk	SSI1Clk	I2C3SCL	M0PWM6	M1PWM0	–	WT2CCP0	–	–	–	–
2.08	PA4	–	–	21	–	SSI0Rx	–	–	–	–	–	–	–	–	–
2.09	PA3	–	–	20	–	SSI0Fss	–	–	–	–	–	–	–	–	–
2.10	PA2	–	–	19	–	SSI0Clk	–	–	–	–	–	–	–	–	–

J3 Pin	GPIO	Analog Function / GPIO AMSEL	On-board Function	Tiva C Series MCU Pin	GPIOPCTL Register Setting										
					1	2	3	4	5	6	7	8	9	14	15
3.01	5.0 V														
3.02	GND														
3.03	PD0	AIN7	–	61	SSI3Clk	SSI1Clk	I2C3SCL	M0PWM6	M1PWM0	–	WT2CCP0	–	–	–	–
3.03	PB6	–	Connected for MSP430 Compatibility (R9)	1	–	SSI2Rx	–	M0PWM0	–	–	T0CCP0	–	–	–	–
3.04	PD1	AIN6	–	92	SSI3Fss	SSI1Fss	I2C3SDA	M0PWM7	M1PWM1	–	WT2CCP1	–	–	–	–
3.04	PB7	–	Connected for MSP430 Compatibility (R10)	4	–	SSI2Tx	–	M0PWM1	–	–	T0CCP1	–	–	–	–
3.05	PD2	AIN5		63	SSI3Rx	SSI1Rx	–	M0FAULT0	–	–	WT3CCP0	USB0EPEN			
3.06	PD3	AIN4	–	64	SSI3Tx	SSI1Tx	–	–	–	–	WT3CCP1	USB0PFLT	–	–	–
3.07	PE1	AIN2	–	8	U7Tx	–	–	–	–	–	–	–	–	–	–
3.08	PE2	AIN1	–	7	–	–	–	–	–	–	–	–	–	–	–
3.09	PE3	AIN0	–	6	–	–	–	–	–	–	–	–	–	–	–
3.10	PF1	–	–	29	U1CTS	SSI1Tx	–	–	M1PWM5	–	T0CCP1	–	C1o	TRD1	–

J4 Pin	GPIO	Analog Function / GPIO AMSEL	On-board Function	Tiva C Series MCU Pin	GPIOPCTL Register Setting										
					1	2	3	4	5	6	7	8	9	14	15
4.01	PF2	–	Blue LED (R11)	30	–	SSI1Clk	–	M0FAULT0	M1PWM6	–	T1CCP0	–	–	–	TRD0
4.02	PF3	–	Green LED (R12)	31	–	SSI1Fss	CAN0Tx	–	M1PWM7	–	T1CCP1	–	–	–	TRCLK
4.03	PB3	–	–	48	–	–	I2C0SDA	–	–	–	T3CCP1	–	–	–	–
4.04	PC4	C1–	–	16	U4Rx	U1Rx	–	M0PWM6	–	IDX1	WT0CCP0	U1RTS	–	–	–
4.05	PC5	C1+	–	15	U4Tx	U1Tx	–	M0PWM7	–	PhA1	WT0CCP1	U1CTS	–	–	–
4.06	PC6	C0+	–	14	U3Rx	–	–	–	–	PhB1	WT1CCP0	USB0EPEN	–	–	–
4.07	PC7	C0–	–	13	U3Tx	–	–	–	–	–	WT1CCP1	USB0PFLT	–	–	–
4.08	PD6	–	–	53	U2Rx	–	–	–	–	PhA0	WT5CCP0	–	–	–	–
4.09	PD7	–	–	10	U2Tx	–	–	–	–	PhB0	WT5CCP1	NMI	–	–	–
4.10	PF4	–	USR_SW1 (R13)	5	–	–	–	–	M1FAULT0	IDX0	T2CCP0	USB0EPEN	–	–	–

Signal Types

POWER
GPIO
SPI
ADC
PWM

Viewed From Top

Motor Outputs

Motor Supply

CSD88537ND x4

DRV8711

Pot

BOOST-DRV8711

J1

J2

To LaunchPad J1

3.3V
POT

nSLEEP
SCLK
RESET
STEP/AIN1
DIR/AIN2

To LaunchPad J2

GND
nSTALL
nFAULT

SDI
SDO
BIN1
BIN2
SCS
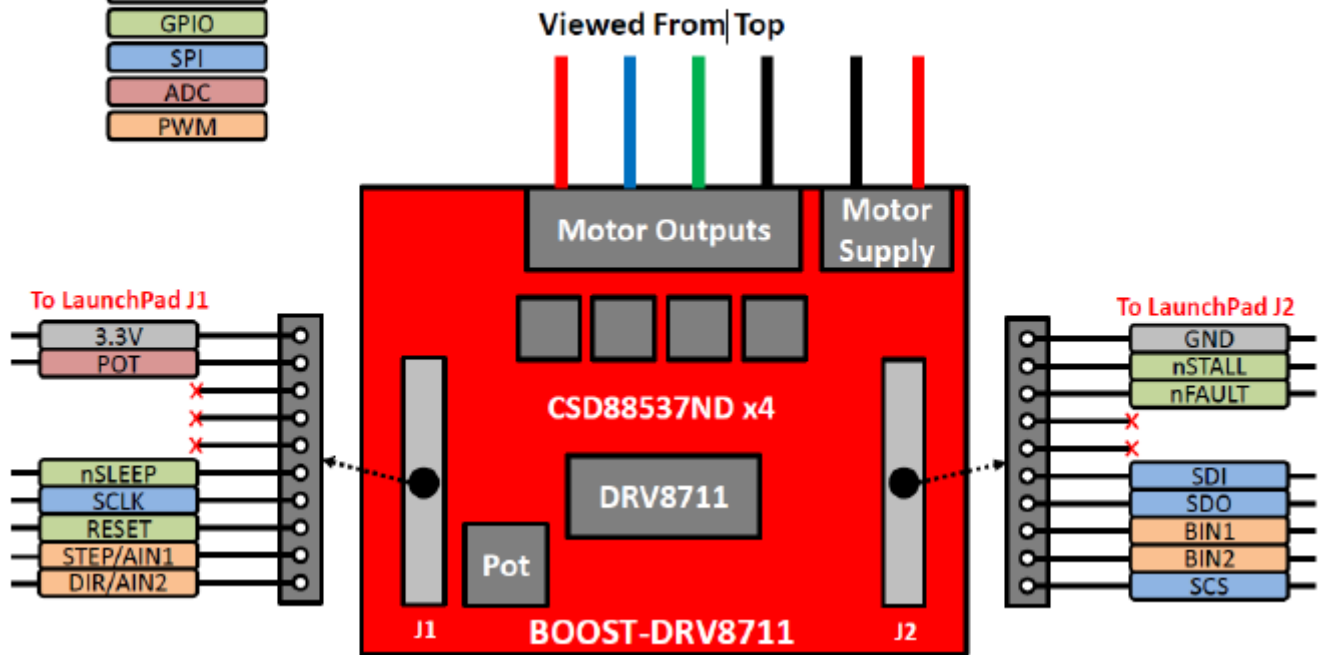
J1			
1.01	3V3		
1.02	PB5	AIN11	POT
1.03	PB0		
1.04	PB1		
1.05	PE4		
1.06	PE5	Out	nSLEEP
1.07	PB4	SS2Clk	SCLK
1.08	PA5	Out	RESET
1.09	PA6	M1PWM2	STEP/AIN1
1.10	PA7	Out	DIR/AIN2

J2			
2.01	GND		
2.02	PB2	In	nSTALL
2.03	PE0	In	nFAULT
2.04	PF0	In	User SW 2 via R1
2.05	RESET		
2.06	PB7	SSI2Tx	SDI
2.07	PB6	SSI2Rx	SDO
2.08	PA4	Out	BIN1
2.09	PA3	Out	BIN2
2.10	PA2	Out	SCS

J3			
3.01	5V		
3.02	GND		
3.03	PD0	SSI3Clk	
3.04	PD1	SSI3Fss	8-Digit
3.05	PD2	SSI3Rx	Display
3.06	PD3	SSI3Tx	
3.07	PE1		
3.08	PE2		
3.09	PE3		
3.10	PF1	Red LED via R2	

J4			
4.01	PF2	Blue LED via R11	
4.02	PF3	Green LED via R12	
4.03	PB3	T3CCP1	
4.04	PC4	IDX1	
4.05	PC5	PhA1	Linear Scale
4.06	PC6	PhB1	
4.07	PC7	WT1CCP1	
4.08	PD6	PhA0	User Dial
4.09	PD7	PhB0	
4.10	PF4	(IDX0) User SW1 via R13	