

Bill of Materials

TI DESIGNS

TIDM-VF-WASHINGMACHINE Main Control board

Footprint	Comment	LibRef	Designator	Description	Quantity
0603C	Cap	Cap	C1, C2, C3, C5, C6, C7, C8, C9, C11, C16, C17, C18, C19, C20, C21, C33, C34	Capacitor	17
E/2.5/6.5/E1@	330u/10V	ELECTRO1	C12		1
0603C	47uF/10V	CAP/1206	C13		1
0603C	0.1uF	Cap	C15, C29, C30, C31, C32	Capacitor	5
1206C	Cap	Cap	C26	Capacitor	1
CAP_ECEVS_G10*10	UUD1V331MNL1GS	CE5080R	C35, C37	CE5080R	2
C/1206	10uF/25V	CAP/1206	C36		1
C/0805/SMT1	1uF/25V	CAP/0805	C38		1
C/1206	100P	CAP/0603	C39		1
E5/10	UCY2G6R8MPD(6.8u/400V)	ECAP	C40, C41		2
E/2.5/6.5/E1@	UVR1A331MED	CE5080R	C42, C45	CE5080R	2
C/1206	22uF/10V	CAP/1206	C43		1
C/0805/SMT1	1uF/10V	CAP/0805	C44		1
CAP-3528	10u/25V	ECAP	C46		1
C/0603	0.1u	CAP/0603	C47		1
SOD323_D	LED0	LED0	D1, D6	Typical INFRARED GaAs LED	2
RAD-0.3	D Zener	D Zener	D2, D14, D22, D24	Zener Diode	4
D1206	4148	Diode 1N914	D3, D4, D7, D9, D10, D11, D12, D13, D15, D23, D25	High Conductance Fast Diode	11
D1206	Diode 1N914	Diode 1N914	D5	High Conductance Fast Diode	1
D1206	1N5819	DIODE	D8	Diode	1
D-SMA	MURA120	DIODE	D16		1
D-SMB	SM6T150A	D Zener	D17	Zener Diode	1
D-SMC	MBRS540T3G	DIODE	D18		1
D/10/1/R1@	1N4937-E3(1A/600V)	DIODE	D19		1
D/1206/SMT	4148	DIODE	D20		1
MB8S	Bridge2	Bridge2	D21	Diode Bridge	1
PIN-W2/E2.8	Fuse 1	Fuse 1	F1	Fuse	1
RELAY	Relay-SPST	Relay-SPST	K1, K2, K3, K4, K5, K6	Single-Pole Single-Throw Relay	6
330uH_7x7	330uH_7x7	INDUCTOR IRON	L1		1
Inductor-P5D8	768772102	RC1212P2	L2, L3	RC1212P2	2
HDR1X7	Header 7	Header 7	P2, P4	Header, 7-Pin	2

Footprint	Comment	LibRef	Designator	Description	Quantity
HDR1X6	Header 6	Header 6	P5	Header, 6-Pin	1
BIG_2PIN	Header 2	Header 2	P6, P7, P12, P13, P14, P15, P16, P17, P18	Header, 2-Pin	9
HDR1X13	Header 13	Header 13	P10, P11	Header, 13-Pin	2
TO-226	9013	NPN	Q1, Q2	NPN Bipolar Transistor	2
0603R	Res1	Res1	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R17, R19, R20, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R39, R45, R46, R47, R48	Resistor	33
0603R		RES2	R15, R16		2
1206R	Res1	Res1	R18, R49	Resistor	2
R5/D4.4V	1K	Res1	R21	Resistor	1
AXIAL-0.3	Res1	Res1	R40	Resistor	1
R/1206B	6.8k	RES/1206	R50, R54		2
R/1206B	100k	RES/1206	R51		1
R/1206B	1.5K	RES/1206	R52		1
R5/D4.4V	600	Res1	R53	Resistor	1
R/0603	100K	RES/1206	R55		1
R/0603	33	RES/1206	R56		1
R/0603	1.5K	RES/1206	R58		1
R/0603	20K	RES/1206	R59		1
R/0603	30K	RES/1206	R60		1
R/0603	430K	RES/1206	R61		1
HDR2X10	Header 10X2	Header 10X2	RF1, RF2	Header, 10-Pin, Dual row	2
JCT3(508mm)	SW-SPDT	SW-SPDT	S1	SPDT Subminiature Toggle Switch, Right Angle Mounting, Vertical Actuation	1
Trans-EE13-P10D9	Transformer-4	Transformer-4	T1		1
MSP430F5418AIPN - DUPLICATE	MSP430F5418AIPN	MSP430F5418AIPN	U1		1
SO16-150	ULN2003A	ULN2003A	U2		1
SO8-150	AT24C16	AT24C16	U3		1
817	Optoisolator1	Optoisolator1	U4, U11	4-Pin Phototransistor Optocoupler	2
LM2596	LM2596S-3.3V	LM2575	U5		1
SO-G8/E2.5	UCC28910	UCC28910	U6		1
CD4069	CD4069	CD4069	U7		1
R38	XTAL	XTAL	Y1	Crystal Oscillator	1
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TIDM-VF-WASHINGMACHINE Motor Control board

Footprint	Comment	LibRef	Designator	Description	Quantity
TIBUG4			1		1
Bridge-GBU8K-Sink	GBU8K	Bridge1	BD1	Full Wave Diode Bridge	1
CAP_ECEVS_G10*10	UUD1V331MNL1GS	CE5080R, ECAP	C1, C3, C34	CE5080R	3
C/1206	10uF/25V	CAP/1206	C2		1
C/0805/SMT1	1uF/25V	CAP/0805	C4		1
C/1206	100P	CAP/0603	C5		1
E5/10	UCY2G6R8MPD(6.8u/400V)	ECAP	C6, C7		2
C/0805/SMT1	10uF/10V	CAP/0805	C8		1
C/0603	1uF	CAP/0603, CAP/0805	C9, C54		2
E/2.5/6.5/E1@	UVR1A331MED	CE5080R	C10, C11, C14, C77	CE5080R	4
C/1206	22uF/10V	CAP/1206	C12		1
C/0805/SMT1	1uF/10V	CAP/0805	C13		1
CAP-3528	4.7u/25V	ECAP	C15		1
C/0603	0.1u	CAP/0603	C16, C44		2
E/P10/D30	LGU2E561MELC(560u/250V)	ECAP	C17		1
C/P15/17.6/8	474/630VDC	C27515P2	C18	C27515P2	1
C/5750/2220	2220JA250222KXTB16	C27515P2	C19, C23	C27515P2	2
C/27.2/32/15/R1	R46KR4100ZEM1K(1uF/275V AC)	C27515P2	C20, C22	C27515P2	2
E/P10/D30	560u/250V	ECAP	C21		1
CAP_ECEVS_E8*8)	ECAP	C24, C27, C30		3
C/0805/SMT1	104	CAP/0603	C25, C28, C31, C35		4
C/0603	101/50V	CAP/0603	C38		6
C/P15/17.6/8	104/630VDC	CAP/0603	C32		1
C/0603	1u	CAP/0603	C39, C43		2
C/0603	1n	CAP/0603	C57, C61, C65, C68, C72,		12
C/0603	2.2u	CAP/0603	C42, C45, C47		3
C/0603	15pF	C0805	C76	Ceramic Chip Capacitor - Standard	6
C/0603	2.2uF	CAP/0603	C51		1
C/0603	0.1uF	CAP/0603	C53		1
C/0603	47n/50V	CAP/0805	C56, C59, C64, C67		4
C/0603	103/50V	CAP/0603	C60		1

Footprint	Comment	LibRef	Designator	Description	Quantity
C/0603	104/50V	CAP/0603	C62, C69		2
C/0603	102/50V	CAP/0603	C63, C66, C70		3
C/0805/SMT1	0.1uF	CAP/0805	C71		1
D-SMA	MURA120	DIODE	D1		1
D-SMB	SM6T150A	D Zener	D2	Zener Diode	1
D-SMC	MBRS540T3G	DIODE	D3		1
D/10/1/R1@	1N4937-E3(1A/600V)	DIODE	D4		1
D/1206/SMT	4148	DIODE	D5, D6		2
SOT23-3P	BAT43S	BAV99	D7, D8, D9, D10, D11, D12,		7
Fuse-4*15	0673008.MXE(8A/250V)	Fuse 2	F1	Fuse	1
PIN-W2/E2.8	NC	Fuse 2	F2	Fuse	1
RAD-0.2	NC	Jumper	J1	Jumper Wire	1
35979/JS-1120	3PIN		J2		1
35979/JS-1120			J3		1
CN4P/2.5	Header, 2.54mil*4*1	MHDR1X4	J4	Header, 4-Pin	1
CN6P/2.5	Header 6	Header 6	J5	Header, 6-Pin	1
JTAG	JTAG	DB20P14M	JTAG1	DB20P14M	1
RY/K2AK012T	K2AK012T	Relay-SPST	K1	Single-Pole Single-Throw Relay	1
Inductor-P5D8	768772102	RC1212P2	L1, L2	RC1212P2	2
L-22*12	2100LL-221-H-RC	RC1212P2	L3	RC1212P2	1
L4p-30*21	7448258022	TRANS3	L4		1
R/0805/SMT1	60FB	RES/0805	L5		1
R/0805/SMT1	220 FB	RES/0805	L6		1
LED0805	Green	LED-0805	LED1	GaAs LED 0805	1
SOT89-MPT3	BCX 55-16 E6327	NPN BCE_6	Q1		1
SOT23-3P	S9013LT1	NPN	Q2	NPN Bipolar Transistor	1
R5/D4.4V	1K	Res1	R1	Resistor	1
R/1206B	6.8k	RES/1206	R2, R9		2
R/1206B	100k	RES/1206	R3		1
R/1206B	1.5K	RES/1206	R4		1
R/1206B	2/1206	RES/1206	R5		1
R/1206B	22	RES/0603	R6		1
R5/D4.4V	600	Res1	R7	Resistor	1
R/0603	3.3K_1%	RES/0603	R8		1
R/0603	10K_1%	RES/0603	R10		1
R/0603	86.8K	RES/1206	R11		1
R/0603	33	RES/1206	R12		1
R/0603	0	RES/0805, RES/1206	R13, R60		2
R/0603	NC	RES/1206	R14		1
R/0603	28.5K	RES/1206	R15		1

Footprint	Comment	LibRef	Designator	Description	Quantity
R/0603	430K	RES/1206	R16		1
R/1206B	180K±1%	RES/1206	R22, R23		7
AXIAL-0.3	NC	Res1	R24	Resistor	1
ZR/7/10/3/R1	8D2-15LD	Res Adj2	R25	Variable Resistor	1
R/0603	100	RES/0603, RES_5mm	R26, R31, R33, R38, R41,		14
R/0603	3.3K	RES_5mm	R27, R32, R34, R39, R42, R44		6
R/0805/SMT1	100	RES_5mm	R28, R29		2
R/0805/SMT1	10K	RES/0805	R30		1
R/2010	0.1/2W	RES_5mm	R35, R37, R40		3
R/0603	10K	RES_5mm	R36, R48, R49, R50, R51,		19
R/0603	10K±1%	RES/0603	R46		1
R/0603	1K	RES-0603-1%, RES/0603, RES_5mm	R47, R67, R70, R97, R109, R121	Resistor 0603 1%	6
R/0603	1M	RES-0603-1%	R54	Resistor 0603 1%	1
R/0603	4.99K/1%	RESISTOR	R56, R58		2
R/0603	1K/1%	RESISTOR	R57, R59		2
R/1206B	200K±1%	RES/1206	R78, R79, R80, R81, R87,		16
R/0603	4.22K±1%	RES/0805	R83, R94, R105, R116		4
R/0603	15K±1%	RES_5mm	R85		1
R/0603	2K±1%	RES_5mm	R86, R92, R95		3
R/0603	1K±1%	RES_5mm	R93		1
R/0603	1.5K±1%	RES_5mm	R96, R98, R104, R106, R108,		12
R/0603	2.2K±1%	RES_5mm	R107, R119, R130		3
R/0805/SMT1	NC	RES/0805	R123, R124		2
Trans-EE13-P10D9	EE13	Transformer-4	T1		1
SO-G8/E2.5	UCC28910	UCC28910	U1		1
SOT23-3p	TL431BQDBZ	431P3TSM	U2	431P3TSM	1
P-FNB41060	FNB41060	FNB41060	U3		1
IC-LQFP48-PT-PFB	TMS320F28027-48P	TMS320F28027-48P	U4		1
SMD4	TLP181	PC817C	U5, U6		2
SO-G8/E2.5	TLV2772ID	OPA2171AID	U7, U8		2
XTAL-5*3SMT	10M	XTAL-NX5032GA	Y1	Surface Mount Quartz Crystal	1
D-SMA	SMAZ24-13-F	D Zener_5mm	ZD1, ZD2, ZD3, ZD4		4
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