CN1 — Header 19x2

Pin	Signal		Pin	Signal
1	F_LED PC11		2	P_LED PD2
3			4	
5			6	
7			8	GND
9			10	
11			12	
13			14	3V3
15			16	
17			18	
19	GND		20	
21			22	GND
23	BT1 PC13		24	
25			26	
27			28	FBC_U PA0
29			30	VBUS_SENSE PA1
31			32	IPH_W PA4
33			34	INL_V PB0
35	IPH_V PC2		36	FBC_V PC1
37	IPH_U PC3		38	FBC_W PC0

CN2 — Header 19x2

HallC — BT2 PC9 / PC8 HallA / PC6 HallB / 5V

Pin	Signal		Pin	Signal
1			2	
3			4	
5			6	
7			8	
9			10	
11			12	
13	F/EF PA6		14	
15	INL_U PA7		16	
17			18	
19			20	
21	INH_V PA9		22	GND
23	INH_U PA8		24	INL_W PB1
25			26	
27	SLP PB4		28	
29	SLP_EN PB5		30	
31	EF_REST PB3		32	
33	INH_W PA10		34	Int_Pt PC4
35			36	
37			38	

LEDs

- LD1 RED — F_LED — R1 10K — 3V3
- LD2 GREEN — P_LED — R2 10K — 3V3

P2 — Header 10X2

GND / VBUS_SENSE / SLP / SLP_EN / EF_REST / FBC_W / FBC_V / FBC_U
VCONTROL / INH_W / INL_W / INH_V / INL_V / INH_U / INL_U
VDD
R? 1K — EF
C? 1nF — GND

Switches

- B1 SWITCH — R3 10K — 3V3 — BT1 — GND
- B2 SWITCH — R4 10K — 3V3 — BT2 — GND

P1 — Header 2

| 1 | VDD |
| 2 | 3V3 |

R5 10kΩ — 3V3 / Int_Pt / C1 1nF / GND

P3 — Header 8

1	VDD
2	SM
3	FBC_W
4	FBC_V
5	FBC_U
6	IPH_W
7	IPH_V
8	IPH_U

P2 — Header 11

11	INH_W
10	INL_W
9	INH_V
8	INL_V
7	INH_U
6	INL_U
5	Fault
4	SLP
3	EF
2	EF_REST
1	GND

P4 — Header 3

1	EF
2	F/EF
3	Fault

CN1

B1

CN2

B2

R3

R4

LD1 R1
LD2 R2

R5

P4

P1

STM32F401RE

3-Phase demo
Nucleo-Interface
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P3

P2

VDD SM CW CV CU IPW IPV IPU HW LW HV LV HU LU GND FAT SLP EF FER

Comment	Description	Designator	Footprint	LibRef	Quantity
SW-PUSH-CMS	Non-Open Push-Button 0.1A 24V BLACK	B1, B2	SWI_WEALTHMETAL_TD-0341_4P_BLUE	MCD-00001	2
Capacitor 1 uF +/- 10% 16 V 0603	Chip Capacitor, 1 uF, +/- 10%, 16 V, 0603 (1608 Metric)	C1	CAPC1608X94X35NL15T15	CMP-001-00003-6	1
Header 19x2	Header, 19x2, 2,54mm, VR, TH, Height 5.84mm/10.16mm	CN1, CN2	CON_SAMTEC_TSW-119-09-X-D	Header19	2
LED_red	LED, Red, 0603	LD1	LED_0603_RED	LED_R	1
LED_green	LED, Green, 0603	LD2	LED_0603_GREEN	LED_G	1
Header 2	Header, 2-Pin	P1	HDR1X2	Header 2	1
Header 11	Header, 11-Pin	P2	HDR1X11	Header 11	1
Header 8	Header, 8-Pin	P3	HDR1X8	Header 8	1
Header 3	Header, 3-Pin	P4	HDR1X3	Header 3	1
10K	Resistor	R1, R2, R3, R4	0603R	Res2	4
10kΩ		R5	RES-ADJ-TH_3P-L9.5-W9.5-P2.54-BR-BS	10kΩ	1