BIT CONVERTER
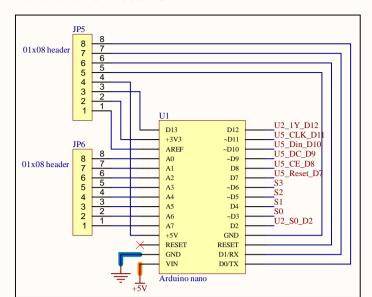
Note: Supply Voltage-10V to 5V
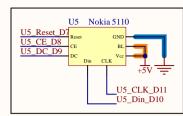
Arduino Nano
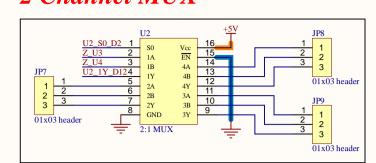
JP5
01x08 header
8 7 6 5 4 3 2 1

JP6
01x08 header
8 7 6 5 4 3 2 1

U1
Arduino nano

D13	D12 — U2_1Y_D12
+3V3	~D11 — U5_CLK_D11
AREF	~D10 — U5_Din_D10
A0	~D9 — U5_DC_D9
A1	D8 — U5_CE_D8
A2	D7 — U5_Reset_D7
A3	~D6 — S3
A4	~D5 — S2
A5	D4 — S1
A6	~D3 — S0
A7	D2 — U2_S0_D2
+5V	GND
RESET	RESET
GND	D1/RX
VIN	D0/TX

+5V

Power Supply

JP1
01x02 header
2 1

U6 TP4056
+Vin +B +Vout
-Vin -B -Vout
5 3 6 2 1 4

JP2
01x02 header
2 1

+5V
SW31
1 2 3
push switch

+5V JP4
01x04 header
1 2 3 4

JP3
01x04 header
1 2 3 4

GND

Display

U5 Nokia 5110
U5_Reset_D7 — Reset GND
U5_CE_D8 — CE BL
U5_DC_D9 — DC Vcc — +5V
Din CLK — U5_CLK_D11
U5_Din_D10

2 Channel MUX

U2 2:1 MUX
U2_S0_D2 — S0 Vcc 16
Z_U3 — 1A EN 15
Z_U4 — 1B 4A 14
U2_1Y_D12 — 1Y 4B 13
2A 4Y 12
2B 3A 11
2Y 3B 10
GND 3Y 9

JP7
01x03 header
1 2 3

+5V
JP8
01x03 header
1 2 3

JP9
01x03 header
1 2 3

Mounting Holes

MH1 MH2 MH3 MH4

Numerical Switch

U3 16:1 MUX
Z_U3 — 1 Z Vcc 24
2 I7 I8 23
3 I6 I9 22
4 I5 I10 21
5 I4 I11 20
6 I3 I12 19
7 I2 I13 18
8 I1 I14 17
9 I0 I15 16
S0 — 10 S0 EN 15
S1 — 11 S1 S2 14 — S2
12 GND S3 13 — S3

+5V

SW1 switch 12mm R1 2K2Ω
SW2 switch 12mm R2 2K2Ω
SW3 switch 12mm R3 2K2Ω
SW4 switch 12mm R4 2K2Ω
SW5 switch 12mm R5 2K2Ω
SW6 switch 12mm R6 2K2Ω
SW7 switch 12mm R7 2K2Ω
SW8 switch 12mm R8 2K2Ω
SW9 switch 12mm R9 2K2Ω
SW10 switch 12mm R10 2K2Ω
SW11 switch 12mm R11 2K2Ω
SW12 switch 12mm R12 2K2Ω
SW13 switch 12mm R13 2K2Ω
SW14 switch 12mm R14 2K2Ω
SW15 switch 12mm R15 2K2Ω
SW16 switch 12mm R16 2K2Ω

Operational Switch

U4 16:1 MUX
Z_U4 — 1 Z Vcc 24
2 I7 I8 23
3 I6 I9 22
4 I5 I10 21
5 I4 I11 20
6 I3 I12 19
7 I2 I13 18
8 I1 I14 17
9 I0 I15 16
S0 — 10 S0 EN 15
S1 — 11 S1 S2 14 — S2
12 GND S3 13 — S3

+5V

SW17 Switch 6mm R17 2K2Ω
SW18 Switch 6mm R18 2K2Ω
SW19 Switch 6mm R19 2K2Ω
SW20 Switch 6mm R20 2K2Ω
SW21 Switch 6mm R21 2K2Ω
SW22 Switch 6mm R22 2K2Ω
SW23 Switch 6mm R23 2K2Ω
SW24 Switch 6mm R24 2K2Ω
SW25 Switch 6mm R25 2K2Ω
SW26 Switch 6mm R26 2K2Ω
SW27 Switch 6mm R27 2K2Ω
SW28 Switch 6mm R28 2K2Ω
SW29 switch 12mm R29 2K2Ω
SW30 switch 12mm R30 2K2Ω

Schematic: Arduino Nano
CD4067BE
74HC157