LEDs

Red_LED
Green_LED

R1 330
R2 330

D1 LED
D2 LED

GND   GND

Microprocesser

Vin VCC
+5V
+3.3V

IOREF
RESET

J1
1
2
3
4
5
6
7
8
Power

GND

J2
1 SCL/A5
2 SDA/A4
3 AREF
4
5 13 Dig1
6 12 Dig2
7 *11 Dig3
8 *10 Dig4
9 *9 DS
10 8 ST_CP
Digital/PWM

GND

J3
A0 1
A1 2
A2 3
A3 4
SDA/A4 5
SCL/A5 6
Analog

J4
1 7 SH_CP
2 *6 Buzzer
3 *5 Red_LED
4 4 Green_LED
5 3 Button_2
6 2 Button_1
7 TX/1
8 RX/0
Digital/PWM

Buzzer

Buzzer

LS1
Speaker
1
2

GND

Shift Register

U1
74HC595

VCC 16 +5V

DS 14 SER
QA 15 a
QB 1 b
QC 2 c
SH_CP 11 SRCLK QD 3 d
+5V 10 SRCLR QE 4 e
QF 5 f
ST_CP 12 RCLK QG 6 g
13 OE QH 7 dp

GND QH' 9

GND 8 GND

GND

7_Segment Display

U2
CA56-12EWA

R3 100 11
a R4 100 7
b R5 100 4
c R6 100 2
d R7 100 1
e R8 100 10
f R9 100 5
g R10 100 3
dp

a
b
c
d
e
f
g
DPX

a
f / / b
g
e / / c
d

DP1 DP2 DP3 DP4

CA1 12 Dig1
CA2 9 Dig2
CA3 8 Dig3
CA4 6 Dig4

Push Buttons

SW1
SW_Push

+5V

Button_1
R11
10k

GND

SW2
SW_Push

+5V

Button_2
R12
10k

GND

* Indicates a PWM-capable pin

+3.3V
PWR_FLAG

VCC
PWR_FLAG

+5V
PWR_FLAG

GND
PWR_FLAG