Power
3
2
1
Header 3
GND

LCD H.
1
2
3
Header 3H

lcd pot
RPot
1K
GND

R
Res1
1K

RST
SW-PB
GND

C
Cap2
100pF
GND

U1
1 MCLR/VPP/RE3
11 VDD
32 VDD
12 VSS
31 VSS
2 RA0/AN0
3 RA1/AN1
4 RA2/AN2
5 RA3/AN3/VREF+
6 RA4/T0CKI/C1OUT
7 RA5/AN4/SS
14 OSC2/CLKO/RA6
13 OSC1/CLKI/RA7

RB0/INT0/FLT0/AN12 33
RB1/INT1/AN10   34
RB2/INT2/AN8   35
RB3/AN9/CCP2   36
RB4/KBI0/AN11   37
RB5/KBI1/PGM   38
RB6/KBI2/PGC   39
RB7/KBI3/PGD   40

LCD
1
2
3
4
5
6
7
8
Header 8

Keypad
RD0/PSP0 19 1
RD1/PSP1 20 2
RD2/PSP2 21 3
RD3/PSP3 22 4
RD4/PSP4 27 5
RD5/PSP5/P1B 28 6
RD6/PSP6/P1C 29 7
RD7/PSP7/P1D 30 8
Header 8

PortC
1 RC0/T1OSO   15
2 RC1/T1OSI/CCP2 16
3 RC2/CCP1/P1A   17
4 RC3/SCK/SCL   18
5 RC4/SDI/SDA   23
6 RC5/SDO   24
7 RC6/TX/CK   25
8 RC7/RX/DT   26
Header 8

RE0/RD/AN5   8
RE1/WR/AN6   9
RE2/CS/AN7   10

PIC18F4520-I/P

C1 GND
Cap2
100pF

C2
Cap2
100pF

GND

Rsw
Res1
100

Inner S/W
2
1

Sole
1
2

Header 5
S.Rel
5 4 3 2 1

S.Trans
2N3904

Buzz
Header 2
1
2
B.Rel
Header 5
5 4 3 2 1

B.Trans
2N3904

Rg
Res1
1K

Rr
Res1
1K

Rb
Res1
1K

Ry
Res1
1K

Green
G

Rred
Red

B
Blue

Y
Yellow

GND

Title
Door Locking System

Size
A
Number
Revision
Date: 22/04/2015
File: C:\Users\..\Door_PCB_MAIN.SchDoc
Sheet   of
Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
Blue	Typical BLUE SiC LED	B	LED-0	LED3	1
Header 5	Header, 5-Pin	B.Rel, S.Rel	relay	Header 5	2
2N3904	NPN General Purpose Amplifier	B.Trans, S.Trans	HDR1X3	2N3904	2
Header 2	Header, 2-Pin	Buzz, Inner S/W, Sole	HDR1X2	Header 2	3
Cap2	Capacitor	C, C1, C2	CAPR5-4X5	Cap2	3
Green	Typical RED, GREEN, YELLOW, AMBER GaAs LED	G	LED-0	LED2	1
Header 8	Header, 8-Pin	Keypad, LCD, PortC	HDR1X8	Header 8	3
Header 3H	Header, 3-Pin, Right Angle	LCD H.	HDR1X3H	Header 3H	1
RPot	Potentiometer	lcd pot	VR5	RPot	1
Header 3	Header, 3-Pin	Power	HDR1X3	Header 3	1
Res1	Resistor	R, Rb, Rg, Rr, Rsw, Ry	AXIAL-0.3	Res1	6
Red	Typical RED, GREEN, YELLOW, AMBER GaAs LED	Rred	LED-0	LED2	1
SW-PB	Switch	RST	SPST-2	SW-PB	1
PIC18F4520-I/P	Enhanced Flash Microcontroller with 10-Bit A/D and nanoWatt Technology, 32K Flash, 40-Pin PDIP, Industrial Temperature Range	U1	PDIP600-P40	PIC18F4520-I/P	1
XTAL	Crystal Oscillator	X	R38	XTAL	1
Yellow	Typical RED, GREEN, YEL	Y	LED-0	LED2	1