Circuit Schematic

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to Pic Kit

To pic Kit

To pic Kit

VDD

R₁

R₂

C₁

VDD

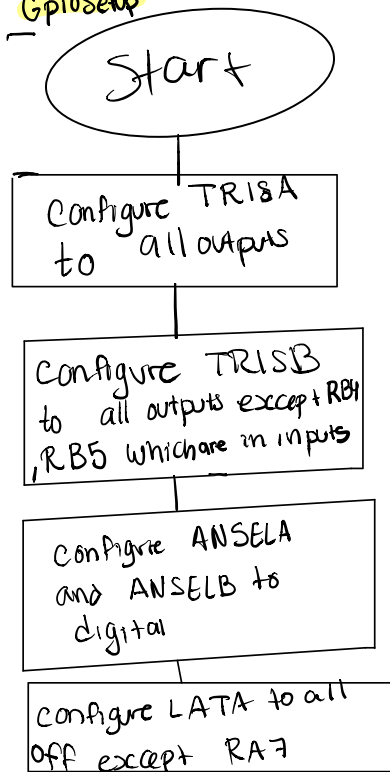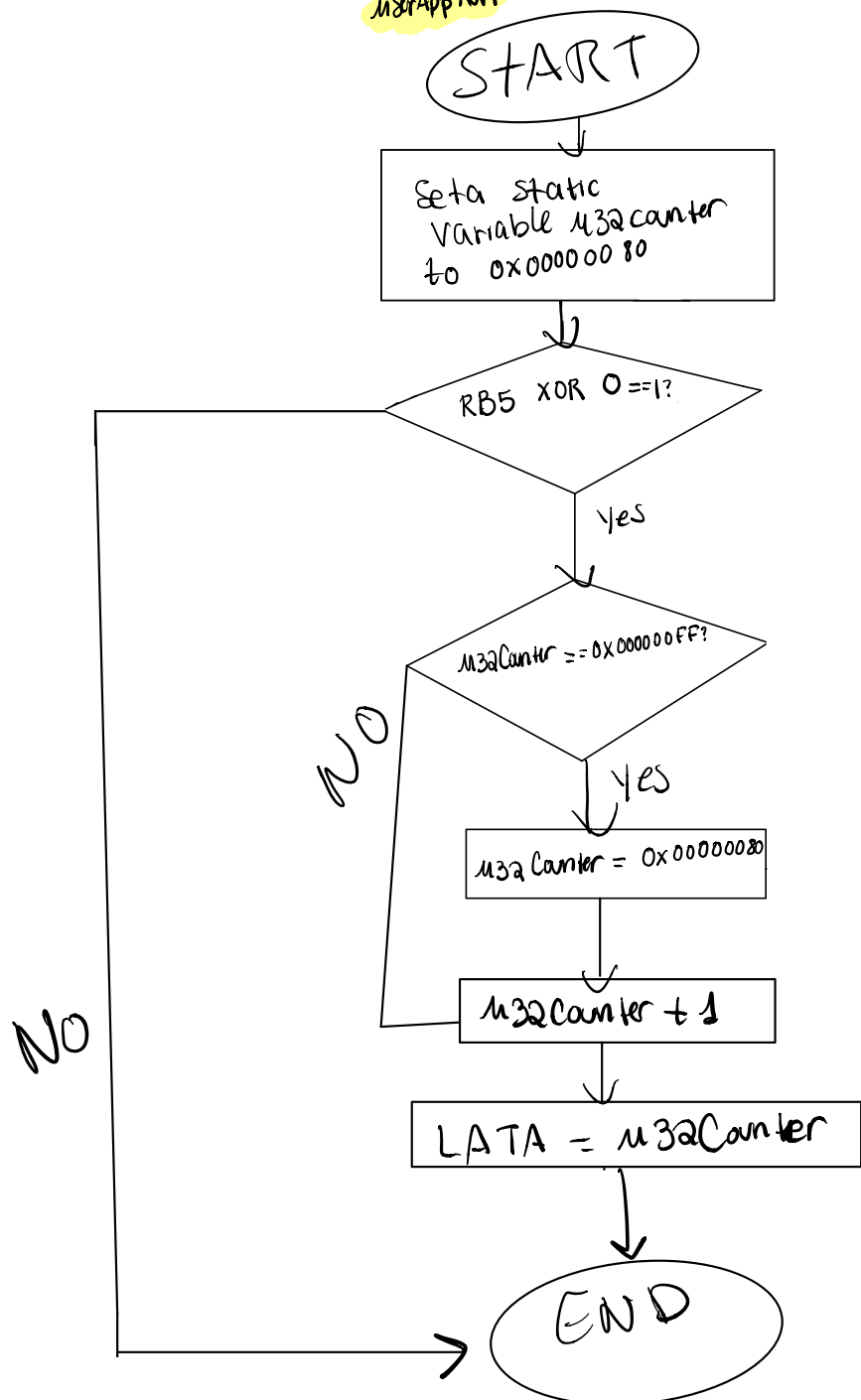| Pin	Label		Label	Pin
1	MCLR/VPP/RE3		RB7/ICSPDAT	28
2	RA0		RB6/ICSPCLK	27
3	RA1		RB5	26
4	RA2		RB4	25
5	RA3		RB3	24
6	RA4		RB2	23
7	RA5		RB1	22
8	Vss		RB0	21
9	RA7		VDD	20
10	RA6		Vss	19
11	RC0		RC7	18
12	RC1		RC6	17
13	RC2		RC5	16
14	RC3		RC4	15

R₃ Vdd

Vdd

R₃

VDD

C₂

R R R R R

R

L1

R

L2

Key

C1 : 0.1 μF

C2 : 0.1 μF

R : 220 Ω
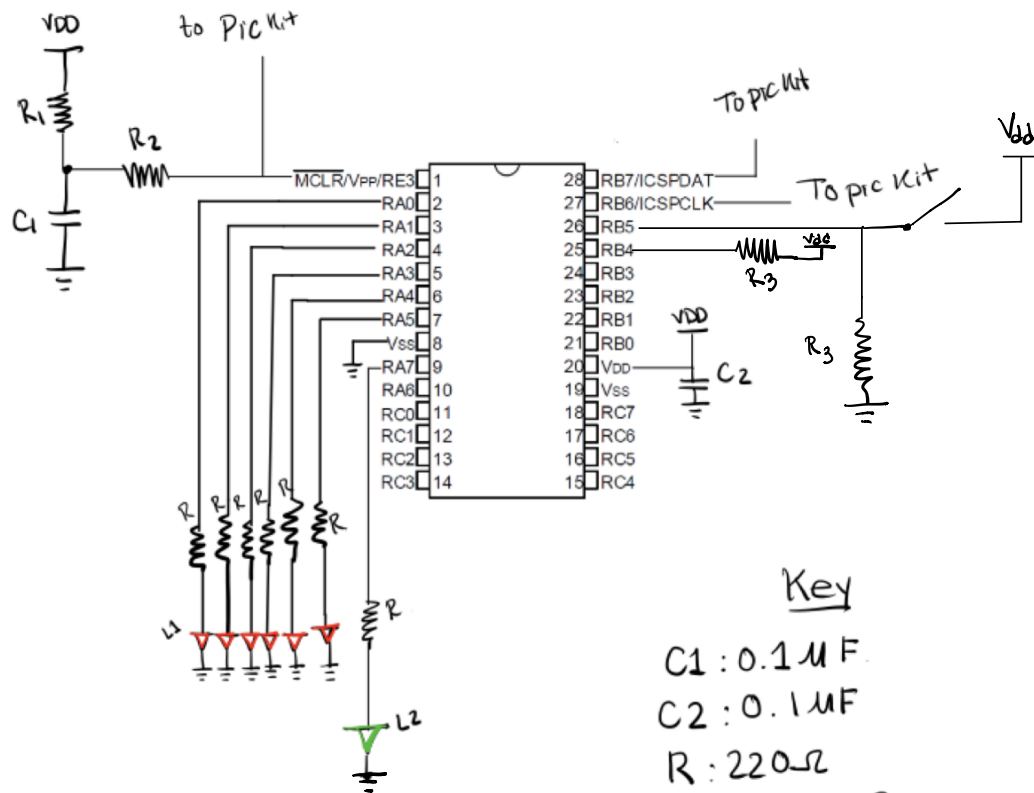
R1 = 10 KΩ

R2 : 100 Ω

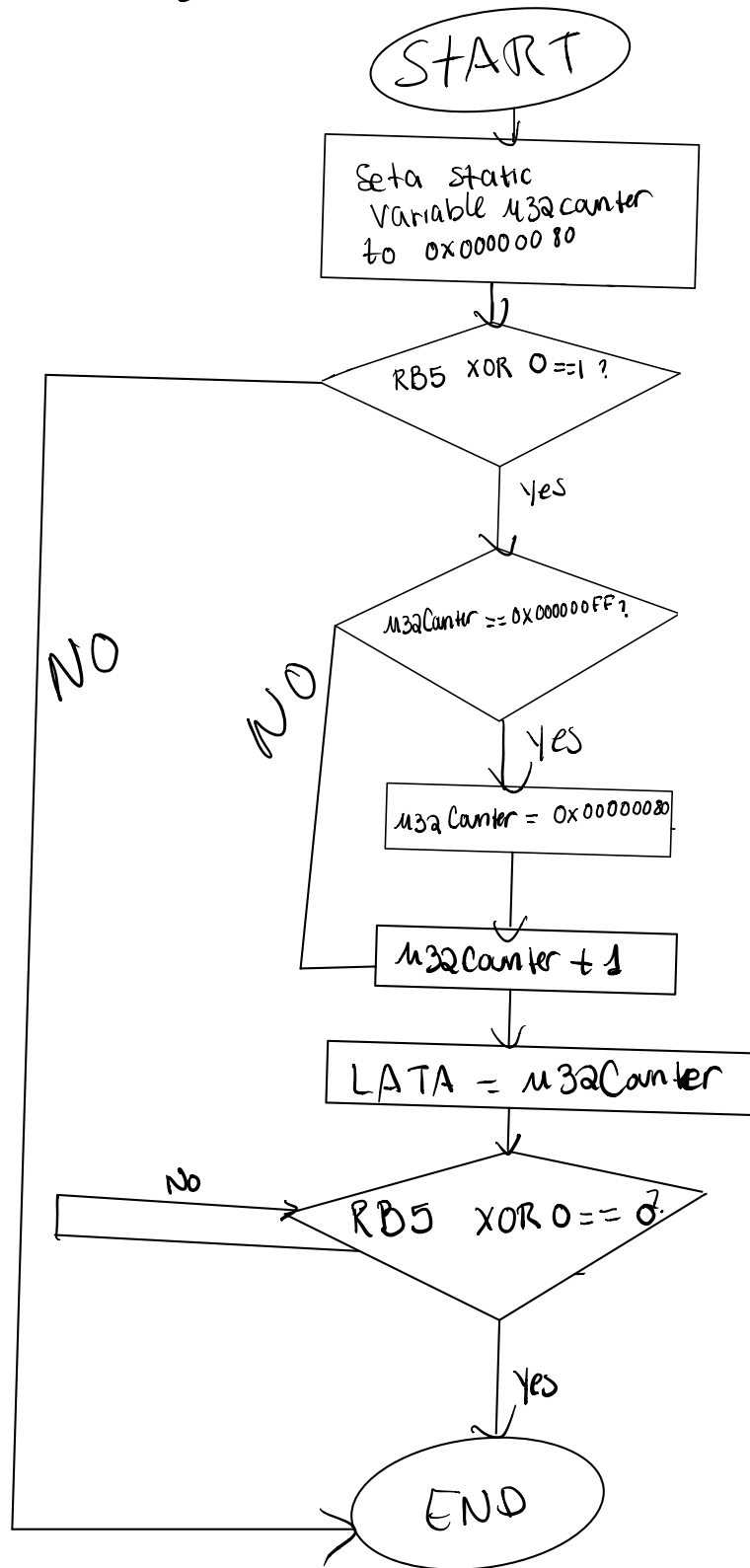L1 : Red Led

L2 : Green Led

R3 = 100 KΩ

Program Design Part1

Start

Configure TRISA to all outputs

Configure TRISB to all outputs except RB4, RB5 which are in inputs

Configure ANSELA and ANSELB to digital

Configure LATA to all off except RA7

START

Set a static variable u32canter to 0x00000080

RB5 XOR 0 ==1?

NO

Yes

u32Cantr == 0x000000FF?

NO

Yes

u32 Canter = 0x00000080

u32Canter + 1

LATA = u32Canter

END

Program Design Part 2

START

↓

Set a static Variable u32canter to 0x00000080

↓

RB5 XOR 0 == 1 ?
- → NO
- ↓ yes

u32Canter == 0x000000FF ?
- → NO
- ↓ yes

u32 Canter = 0x00000080

↓

u32Canter + 1

↓

LATA = u32Canter

↓

RB5 XOR 0 == 0 ?
- ← No
- ↓ yes

END

Hardware