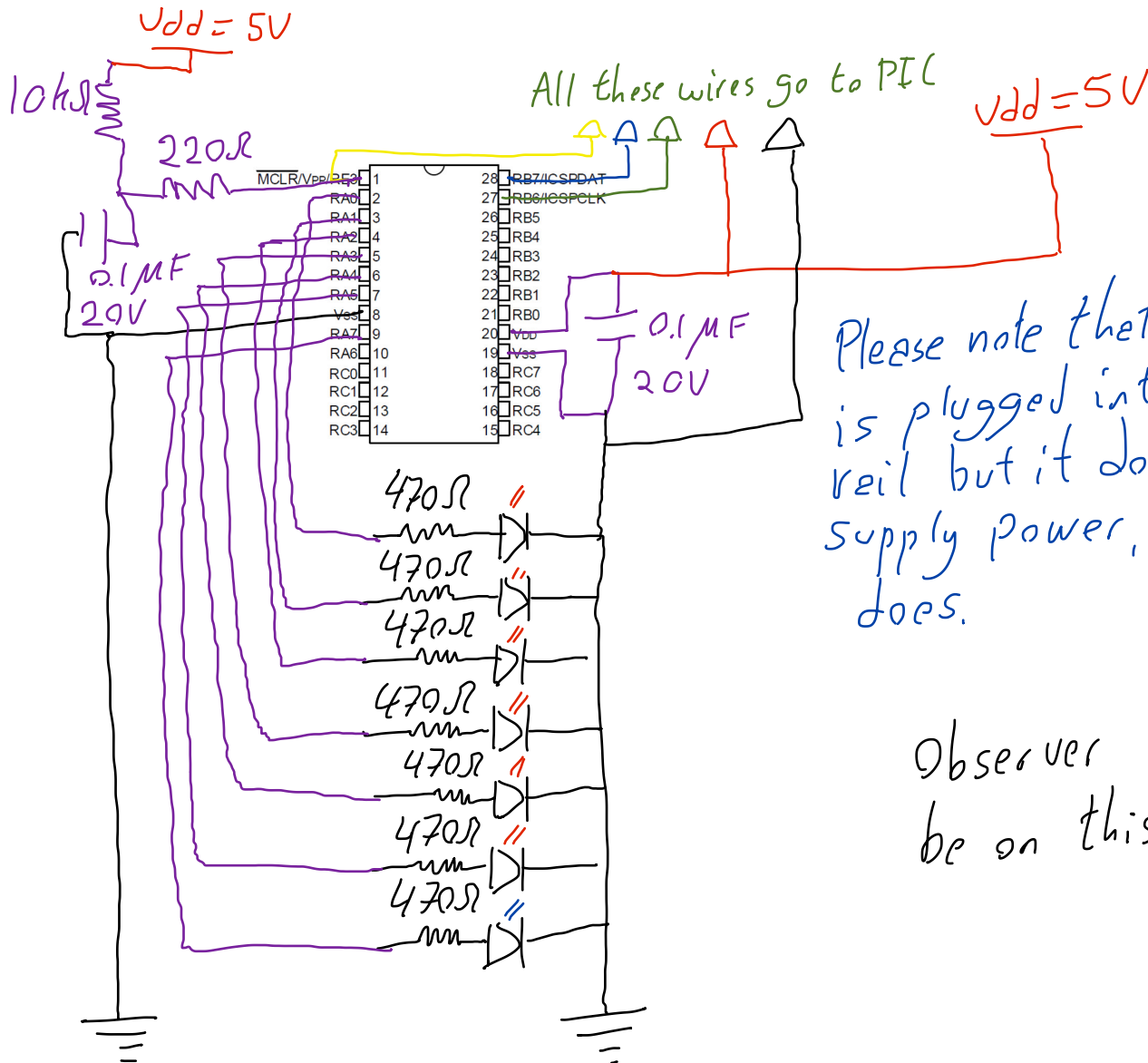


# PIC Activity 3 Circuit Schematic



All these wires go to PIC

Please note that PIC is plugged into power rail but it does not supply power, the wall does.

Observer should be on this side.

# PIC Activity 3

## Program Design Chart.

First Initialize TRISA ANSELA & LATA

Probably  $\begin{cases} \text{TRISA} = 0x00; \\ \text{ANSELA} = 0x00; \\ \text{LATA} = 0x80; \end{cases}$  as for PIC activity 2. Nothing has changed for these two.

- Need to feed LATA 1000000 binary value to make only pin

RA7 output logic 1 (5V) (5V)

Now consider main program steps:

① Create counters for loops.

② Make a primary "while" loop where LATA can be incremented upward from binary

10000000  $\xrightarrow{20}$  01011111

so that the pins output logical 1's and 0's in a binary counting pattern

③ Make a second "while" loop inside the primary "while" loop to turn off some time between adding to LATA

④ After LATA reaches a binary value of 10111111 exit primary "while" loop, set LATA back to 10000000 using bitwise operation, and let program run out.

## Basic Idea

void UserAppRun(void)

{

create two counters, one for each loop.

create an outer "while" loop that runs for  $11111_2$  cycles.

{

LATA++;  $\leadsto$  just need to increment upward.

create an inner "while" loop that burns off about 250ms

{

U32Counter++;

}

will need to reset inner loop counter here.

}

use some method to reset LATA.

Let program run out.

"main" will automatically run it again.