#include "stm32f4xx.h"

void delayMs(int n);

int main(void)

{

RCC->AHB1ENR |= 1; /\* enable GPIOA clock \*/

GPIOA->MODER &= ~0x00000C00; /\* clear pin mode \*/

GPIOA->MODER |=0x00000400; /\* set pin to output mode \*/

while(1)

{

GPIOA->ODR |= 0x00000020; /\* turn on LED \*/ delayMs(500);

GPIOA->ODR &= ~0x00000020; /\* turn off LED \*/ delayMs(500);

}

}

/\* 16 MHz SYSCLK \*/

void delayMs(int n)

{

int i;

for (; n > 0; n--)

for (i = 0; i < 3195; i++) ;

}

Memory:

Sram-static ram

Dram-dynamic ram

ARM processor:

Arch:Version 7

series:Cortex M

M-micro controller

A-application

R-real time application

ARM Cortex M4 180Mhz

I bus-instruction

D bus- data

S bus-system

AHB bus matrix:

AHB1 - 180 hz, AHB2-twice that of AHB1,APB2(90mhz),APB2(45 mhz)

GPIO:general purpose input output

Reading digital signals

Issuing interrupts

Generating triggers for external

GPIO pin:generic pin ,2 voltage (high or low)

Port :16 pins

Multiplexing

Input buffer

Output buffer

Input:

Defaults GIPO pins will be in High Z state or Floating state(unpredictable)

Keeping the pin in this state it consumes more power

Internal Pull down(down side source)

Internal Pull Up(up side source)

Output:

Open Drain state

Push pull configuration

Memory map:

Hexadecimal

0,1,2,3,4,5,6,7,8,9,A,B,C,C,D,E,F

4 giga bits