#include "stm32f4xx.h"

#include<stdio.h>

int odd\_sum(int arr[], int size)

{

int sum = 0; // initializing sum to 0

int i=0; // initializing the loop variable to 0

for (i = 0; i < size; i++) // for loop to run the loop till the array elements are done.. so using size

{

if (arr[i] % 2 != 0) //checking if the element is odd or even.

{

sum += arr[i]; // if its odd, then only add to sum.

}

} //done with the elements

return sum; // return the sum to the main function.

}

int main(void)

{

int sum=0; //initializing sum to 0

int c[] = {11, 20, 35, 47, 51, 6, 70, 82, 91, 10}; // declaring array "c" with 10 elements

int size = sizeof(c) / sizeof(c[0]); //declaring size to be the size of array.

sum = odd\_sum(c, size); // calling the odd\_sum function, where the actual code is written.

int output; // declaring a variable to display the output

RCC->AHB1ENR |= 1; // enabling the clock for GPIOA peripheral.

GPIOA->MODER |= (1 << 0); // configuring the GPIOA as output

output = \_\_get\_CONTROL(); // get the output sum to display the results.

\_\_set\_CONTROL(output); // set the output sum to display

GPIOA->ODR = output; // set the value of the output data register of the GPIOA peripheral to the value of the variable "output"

return 0;

}

**Rough:**

#include "stm32f4xx.h"

#include<stdio.h>

int main(void)

{

int sum=0; //initializing sum to 0

int c[] = {11, 20, 35, 47, 51, 6, 70, 82, 91, 10}; // declaring array "c" with 10 elements

int size = sizeof(c) / sizeof(c[0]); //declaring size to be the size of array.

int i=0; // initializing the loop variable to 0

for (i = 0; i < size; i++) // for loop to run the loop till the array elements are done.. so using size

{

if (arr[i] % 2 != 0) //checking if the element is odd or even.

{

sum += arr[i]; // if its odd, then only add to sum.

}

} //done with the elements

RCC->AHB1ENR |= 1; // enabling the clock for GPIOA peripheral.

GPIOA->MODER |= (1 << 0); // configuring the GPIOA as output

int x = \_\_get\_CONTROL(); // get the output sum to display the results.

\_\_set\_CONTROL(x); // set the output sum to display

GPIOA->ODR = sum; // set the value of the output data register of the GPIOA peripheral to the value of the variable "output"

return 0;

}

**Working:**

**Code1:**

#include <stdio.h>

#include "stm32f4xx.h"

int main(void)

{

int array[10] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

int sum = 0;

int x = \_\_get\_CONTROL();

for (int i = 0; i < 10; i++)

{

if (array[i] % 2 != 0)

{

sum += array[i];

}

}

printf("Sum of odd elements: %d\n", sum);

\_\_set\_CONTROL(x);

// Enable clock for GPIOA

RCC->AHB1ENR |= 1; // Set mode register for GPIOA to output mode

GPIOA->MODER |= 0x5555; // Set output data register for GPIOA to 0

GPIOA->ODR = 0x00; // Set output data register for GPIOA to the value of "sum"

//int z = sum;

GPIOA->ODR=sum;

return 0;

}

**Working code2:**

#include "stm32f4xx.h"

#include<stdio.h>

int main(void)

{

int x = \_\_get\_CONTROL(); // get the output sum to display the results.

int sum=0; //initializing sum to 0

int c[] = {11, 20, 35, 47, 51, 6, 70, 82, 91, 10}; // declaring array "c" with 10 elements

int size = sizeof(c) / sizeof(c[0]); //declaring size to be the size of array.

int i=0; // initializing the loop variable to 0

for (i = 0; i < size; i++) // for loop to run the loop till the array elements are done.. so using size

{

if (c[i] % 2 != 0) //checking if the element is odd or even.

{

sum += c[i]; // if its odd, then only add to sum.

}

} //done with the elements

printf("Sum of odd elements: %d\n", sum);

\_\_set\_CONTROL(x);

// \_\_set\_CONTROL(x); // set the output sum to display

RCC->AHB1ENR |= 1; // enabling the clock for GPIOA peripheral.

GPIOA->MODER |= 0x5555; // configuring the GPIOA as output

GPIOA->ODR = 0x00;

GPIOA->ODR = sum; // set the value of the output data register of the GPIOA peripheral to the value of the variable "output"

return 0;

}