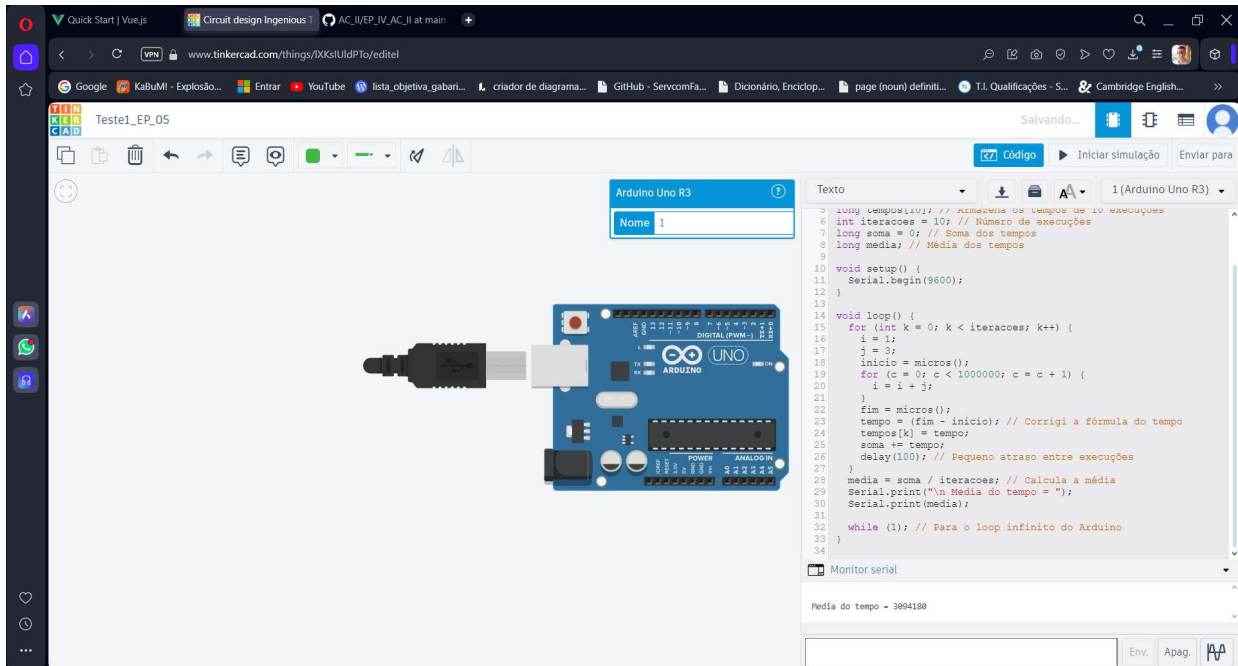


Atividade prática 5

Paulo Henrique Rodrigues Neves

Parte 1 - Print Arduino



PARTE 1 ° TABELA ARDUINO

Tipo	Tempo base	Use para o teste (i = i op 3)			Use para o teste (i = i op j)		
		Soma	Or	Mult	Soma	Or	Mult
byte	2462716	2525861	2525861	2652155	2652155	2652155	2841593
int	2715301	2841595	2778445	3031033	3094180	3094180	3599350
float	3220472	12437601	XXXX	10356169	12690187	XXXX	10608756
*int	3283619	4254636	3574684	4489632	4765842	3845687	5368954

MIPS(ATM328P)							
Tipo		Constante (Ex.: i = i op 3)			Variável (Ex.: i = i op j)		
		Soma	Or	Mult	Soma	Or	Mult
Byte		15,8365	15,83657	5,278744	5,278744	5,278744	2,639379
int		7,918033	15,83682	3,167243	2,639365	2,639365	1,131159
Tipo		MFLOPS (ATM328P)					
		Constante			Variável		
		Soma	Or	Mult	Soma	Or	Mult
Float		0,108494	XXXX	0,14014	0,1056	XXXX	0,135349

Tipo	CPI					
	Soma	Or	Mult	Soma	Or	Mult
byte	1,01032	1,01032	3,031024	3,031024	3,031024	6,062032
int	2,020704	1,010304	5,051712	6,062064	6,062064	14,14478
float	147,4741	XXXX	114,1712	151,5154	XXXX	118,2125

COMPILADOR - TABELAS PROGRAMA EM C

Tipo	Tempo base	Use para o teste (i = i op 3)			Use para o teste (i = i op j)		
		Soma	Or	Mult	Soma	Or	Mult
char	5,9	45,7	16,6	21,1	42,9	16,7	56,3
int	5,8	15,5	6,9	6,4	17,1	7,8	16,6
float	6	37,7	XXXX	37,7	17,1	XXXX	56,3
*int	16,4	21	19	21,1	7,4	9,3	7,1

MIPS (MEU PC)						
TIPO	CONSTANTE			VARIÁVEL		
	Soma	Or	Mult	Soma	Or	Mult
char	251,2563	934,5794	657,8947	270,2703	925,9259	198,412698
int	1030,928	9090,909	16666,67	884,9558	5000	925,9259
Tipo	MFLOPS (ATM328P)					
	CONSTANTE			VARIÁVEL		
	Soma	Or	Mult	Soma	Or	Mult
float	315,4574	XXXX	315,4574	900,9009	XXXX	198,8072

Tipo	CPI					
	Soma	Or	Mult	Soma	Or	Mult
byte	2,21517	5,95536	8,4599	2,05933	6,01102	2,80514
int	5,39879	6,12234	3,33946	6,28931	1,11315	6,01102
float	1,764,35	XXXX	1,76435	6,17799	XXXX	9,0374

FREQUENCIA DO CLOCK

PerformanceTest 11.0 Evaluation Version

File Edit View Tests Advanced Baseline Help

SYSTEM INFORMATION

	This Computer	Baseline #1	Baseline #2
BIOS manufacturer	ins1DL Corp.	American megatrends inc.	American megatrends inc.
BIOS Version	V1.08	F3	1620
BIOS Release Date	2021/09/06	2017/09/06	2022/08/12
Power Source	AC	AC	AC
Power Mode	N/A	N/A	N/A

CPU Information

	This Computer	Baseline #1	Baseline #2
Manufacturer	AuthenticAMD	GenuineIntel	GenuineIntel
Type	AMD Ryzen 7 5700U with Radeon Gra...	Intel Core i7-8700K @ 3.70GHz	12th Gen Intel Core i5-12600
Codename		Coffee Lake	Alder Lake
CPUID	Family 17, Model 68, Stepping 1	Family 6, Model 9E, Stepping A	Family 6, Model 97, Stepping A
Socket		LGA 1151	LGA 1700
Lithography		14nm	10nm
Number of CPU's	1	1	1
Total Cores per CPU	8	6	10
Total Threads per CPU	16	12	16
P-Cores per CPU	8	6	6
E-Cores per CPU	N/A	N/A	4
Clock Frequencies			
Measured Speed	1796.7 MHz	3696.2 MHz [Turbo: 4395.5 MHz]	3687.4 MHz [Turbo: 4883.3 MHz]
Multiplier	(N/A)	37.0X	37.0X
Bus Speed	(N/A)	99.9 MHz	99.7 MHz
Front Side Bus Speed	(N/A)	(N/A)	(N/A)
Timing Error Ratio	1.000	1.000	0.997
Cache per CPU package			
L1 Instruction Cache	8 x 32 KB	6 x 32 KB	6 x 32 KB + 4 x 64 KB
L1 Data Cache	8 x 32 KB	6 x 32 KB	6 x 48 KB + 4 x 32 KB
L2 Cache Size	8 x 512 KB	6 x 256 KB	6 x 1.25 MB + 1 x 2 MB
L3 Cache	2 x 4 MB	12 MB	20 MB

PRINT DO CÓDIGO EM C

```
4
5
6
Codeium: Refactor | Explain | Generate Function Comment | X
7 int main()
8 {
9     clock_t inicio, fim, T;
10    float Tempo, media=0;
11    int c;
12    int k, i=5, j=3;
13    T=CLOCKS_PER_SEC;
14    for (k=1;k<=10;k=k+1) // apenas para realizar a medida 10 vezes
15    { inicio=clock(); // Marca o tempo inicial
16        for (c=1;c<=1000000;c=c+1) i = i+3; // executa o loop
17        fim = clock(); //Marca o tempo finaldfasfa sdfd asf sdf saf ds dfas
18        Tempo =( (fim - inicio)*1000/CLOCKS_PER_SEC); //Calcula tempo final - tempo inicial
19        printf("\nTempo : %g ms.", Tempo);
20        media=media+Tempo;
21    }
22    printf("\nTempo gasto media: %g ms.", media/10);
23 }
24
```

PROBLEMS (2) OUTPUT DEBUG CONSOLE **TERMINAL** PORTS GITLENS COMMENTS

```
Tempo : 6 ms.
Tempo : 5 ms.
Tempo : 6 ms.
Tempo : 7 ms.
Tempo : 7 ms.
Tempo : 7 ms.
Tempo : 7 ms.
Tempo : 7 ms.
Tempo : 6 ms.
Tempo : 7 ms.
Tempo : 6 ms.
Tempo gasto media: 6.4 ms.
```

INFORMAÇÕES DO SISTEMA

System Information	
System Name	PA-PC
Model	
Operating System	Windows 11 Home build 22631 (64-bit)
Motherboard Manufacturer	LN
Motherboard Model	Calla_LC
Motherboard Version	V1.08
BIOS Manufacturer	INSYDE Corp.
BIOS Version	V1.08
BIOS Release Date	2021/09/06
Power Source	AC
Power Mode	N/A

TESTE - PassMark Benchmark

