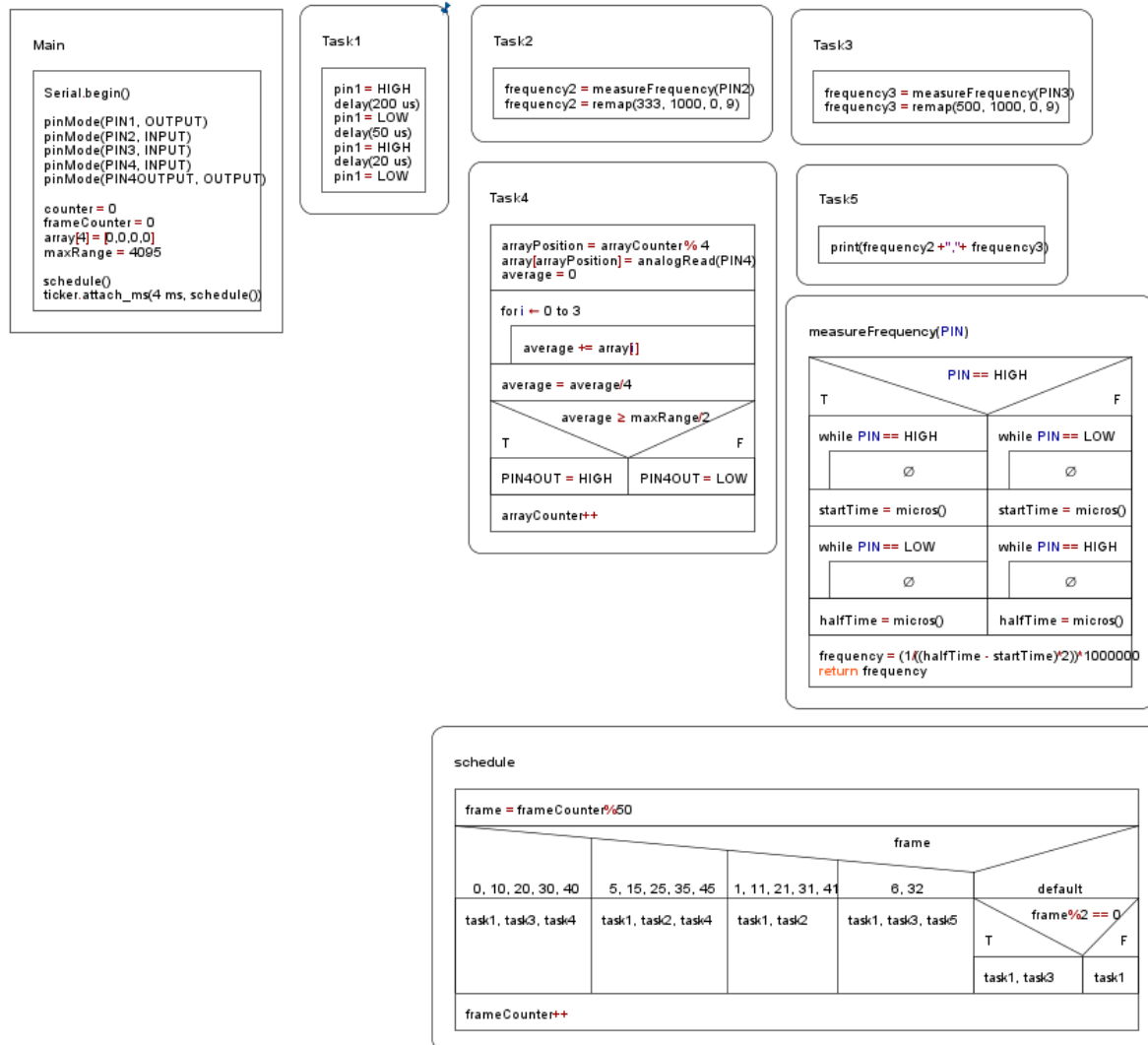


# Assessment 2

Shaun Hampson

The worse-case time taken for each task was computed by running each task for several monitor cycles. The worst-case times were used in the planning of the schedule. The following N-S diagram was used for planning the programme. The hyperperiod shown in the scheduler diagram was divided into 50 frames, each 4ms long. The arrival time of each task was the then plotted by colouring the frame green. Each task needs to be complete once between each green frame. The tasks were assigned to frame in a way to have frames that matched others as much as possible. This was to keep the schedule written in the programme as simplistic as possible.



# Assessment 2

Shaun Hampson

Frame	Time (ms)					Total execution	Slack (us)
0	0	1		1	1	2325	1675
1	4	1	1			3239	761
2	8	1		1		2228	1772
3	12	1				282	3718
4	16	1		1		2228	1772
5	20	1	1		1	3336	664
6	24	1		1		2356	1644
7	28	1				282	3718
8	32	1		1		2228	1772
9	36	1				282	3718
10	40	1		1	1	2325	1675
11	44	1	1			3239	761
12	48	1		1		2228	1772
13	52	1				282	3718
14	56	1		1		2228	1772
15	60	1	1		1	3336	664
16	64	1		1		2228	1772
17	68	1				282	3718
18	72	1		1		2228	1772
19	76	1				282	3718
20	80	1		1	1	2325	1675
21	84	1	1			3239	761
22	88	1		1		2228	1772
23	92	1				282	3718
24	96	1		1		2228	1772
25	100	1	1		1	3336	664
26	104	1		1		2228	1772
27	108	1				282	3718
28	112	1		1		2228	1772
29	116	1				282	3718
30	120	1		1	1	2325	1675
31	124	1	1			3239	761
32	128	1		1		2356	1644
33	132	1				282	3718
34	136	1		1		2228	1772
35	140	1	1		1	3336	664
36	144	1		1		2228	1772
37	148	1				282	3718
38	152	1		1		2228	1772
39	156	1				282	3718
40	160	1		1	1	2325	1675
41	164	1	1			3239	761
42	168	1		1		2228	1772
43	172	1				282	3718
44	176	1		1		2228	1772
45	180	1	1		1	3336	664
46	184	1		1		2228	1772
47	188	1				282	3718
48	192	1		1		2228	1772
49	196	1				282	3718
50	200	1		1	1	2325	1675

# Assessment 2

Shaun Hampson

The decided schedule has no violations. Should the time taken for a task to perform increase greatly e.g. the frequency of the signal in task 2 is 1Hz, the monitor fails to record properly. An amendment would be to check to time does not exceed a specified maximum as this would allow a task to end without impacting the rest of the scheduled tasks.

## PERFORMANCE SUMMARY

Task #1 0/2500 violations  
Task #2 0/500 violations  
Task #3 0/1250 violations  
Task #4 0/500 violations  
Task #5 0/100 violations

Commits on Mar 16, 2023

Added comments

Shaun-Hampson committed yesterday

16040ba

<>

cleaned up code ...

Shaun-Hampson committed yesterday

2c5dc2c

<>

current version works as required by the specification ...

Shaun-Hampson committed yesterday

5085827

<>

Commits on Mar 15, 2023

added schedule spreadsheet to repository

Shaun-Hampson committed 2 days ago

39188bf

<>

finished testing task run times and made schedule ...

Shaun-Hampson committed 2 days ago

a0a4482

<>

Commits on Mar 14, 2023

continued timing tasks

Shaun-Hampson committed 3 days ago

1d6b4a0

<>

Commits on Mar 10, 2023

Created code for tasks ...

Shaun-Hampson committed last week

1e51183

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