Report Generated by Test Manager

Title: Test

Author: MCBTI

Date: 30-Sep-2025 18:22:14

Test Environment

Platform: GLNXA64 MATLAB: (R2025a)

Summary

Name	Outcome	Duration (Seconds)
Results: 2025-Sep-30 18:20:49	2 🕏	7.626
MOT_CTRL_CTRL_FUN	2 🕗	7.048
MOT_CTRL_CTRL_FUN_003	Ø	4.408
■ MOT CTRL CTRL FUN 004	Ø	2.476

Results: 2025-Sep-30 18:20:49

Result Type: Result Set Parent: None

Start Time: 30-Sep-2025 18:20:50 End Time: 30-Sep-2025 18:20:58 Outcome: Total: 2, Passed: 2

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MOT CTRL CTRL FUN

Test Result Information

Result Type: Test Suite Result

Parent: <u>Results: 2025-Sep-30 18:20:49</u>

Start Time: 30-Sep-2025 18:20:50 End Time: 30-Sep-2025 18:20:57 Outcome: Total: 2, Passed: 2

Test Suite Information

Name: MOT_CTRL_FUN

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MOT_CTRL_CTRL_FUN_003

Test Result Information

Result Type: Test Case Result

Parent: <u>MOT CTRL FUN</u>
Start Time: 30-Sep-2025 18:20:50
End Time: 30-Sep-2025 18:20:55

Outcome: Passed

Description:

Este teste vaida os limites da saída do controlador. Foi utilizado um degrau, que inicia no menor setpoint para testar o limite inferior, e termina em um setpoint maior que a velocidade do motor, validando se o controlador irá saturar no máximo.

Test Case Information

Name: MOT_CTRL_FUN_003

Type: Baseline Test

Test Case Requirements

Description: MOT_CTRL-CRTL-FUN-003 Saturação na saída do controlador

Document: MOT_CTRL_CTRL.slreqx

Logical and Temporal Assessments

Name	Assessment
	At any point in time, whenever true is true then, with no delay, result must be true
CheckControlValu	REQUIREMENTS
es	Description: MOT_CTRL-CRTL-FUN-003 Saturação na saída do controlador
	Document: MOT_CTRL.slreqx

Simulation

System Under Test Information

Model: PIDAdj

Harness: MOT_CTRL_FUN_003

Harness Owner: PIDAdj Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: Configuration1

Start Time: 0 Stop Time: 10

Checksum: 2546493675 491098190 1403019958 1286505467

Simulink Version: 25.1 Model Version: 1.4

Model Author: tecnicomcbti

Date: Tue Sep 30 18:10:06 2025

User ID: tecnicomcbti

Model Path: /home/tecnicomcbti/cursoMBD/

 $model_based_design_with_real_time_hardware_t$

esting/Tests/PIDControl/

MOT_CTRL_CTRL_FUN_003.slx

Solver Name: ode3

Solver Type: Fixed-Step Fixed Step Size: 0.0001

 Simulation Start Time:
 2025-09-30 18:20:51

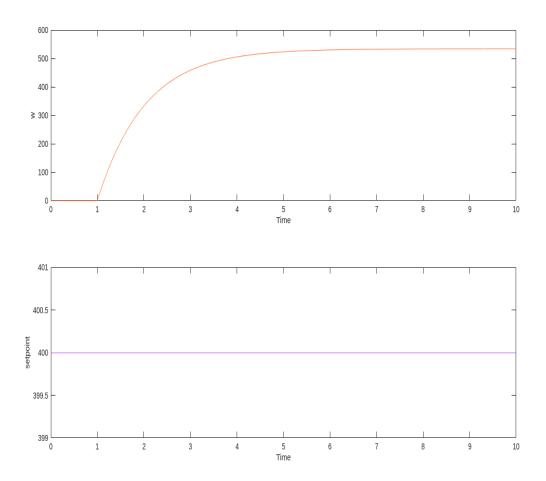
 Simulation Stop Time:
 2025-09-30 18:20:54

Platform: GLNXA64

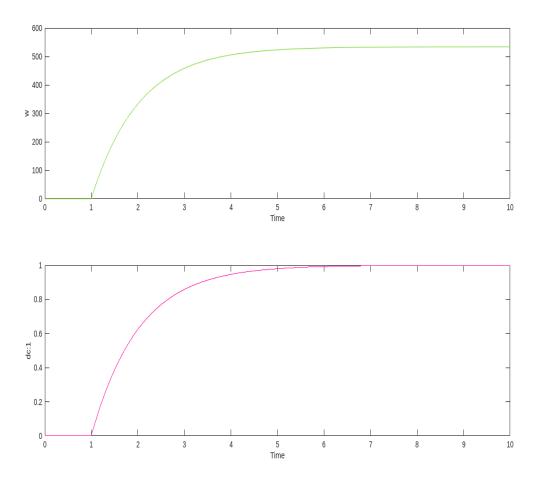
Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plo t
w	double	i 	Continuous	linear	union	Link
setpoint	double	i 	0.001	zoh	union	Link
w	double		0.0001	linear	union	<u>Link</u>
dc:1	double	i 	0.001	zoh	union	<u>Link</u>
result	boolean		0.001	zoh	union	<u>Link</u>

Name	Data Type	Units	Sample Time	Interp	Sync
_w	double		Continuous	linear	union
setpoint	double		0.001	zoh	union

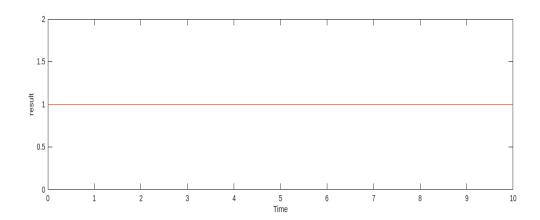


Name	Data Type	Units	Sample Time	Interp	Sync
W	double		0.0001	linear	union
dc:1	double		0.001	zoh	union



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Name	Data Type	Units	Sample Time	Interp	Sync
result	boolean		0.001	zoh	union



Simulation Logs:

Sample time of 'MOT_CTRL_CTRL_FUN_003/Step' 'Output Port 1' and the sample time specified for this signal by 'MOT_CTRL_CTRL_FUN_003/Input Conversion_Subsystem/SigSpec_1' must match.

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Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

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MOT_CTRL_CTRL_FUN_004

Test Result Information

Result Type: Test Case Result

Parent: <u>MOT CTRL FUN</u>
Start Time: 30-Sep-2025 18:20:55
End Time: 30-Sep-2025 18:20:57

Outcome: Passed

Description:

Este teste vaida o tempo de estabilização da resposta a um degrau, utilizando o critério de 2% para o erro em regime permanente.

Test Case Information

Name: MOT_CTRL_FUN_004

Type: Baseline Test

Test Case Requirements

Description: MOT_CTRL-CRTL-FUN-004 Resposta ao degrau

Document: MOT_CTRL_CTRL.slreqx

Logical and Temporal Assessments

Name	Assessment
	At any point in time, whenever flag is true then, with no delay, result must be true
CheckSettlingTim	REQUIREMENTS
e	Description: MOT_CTRL-CRTL-FUN-004 Resposta ao degrau
	Document: MOT_CTRL_CTRL.slreqx

Simulation

System Under Test Information

Model: PIDAdj

Harness: MOT_CTRL_FUN_004

Harness Owner: PIDAdj Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: Configuration1

Start Time: 0 Stop Time: 10

Checksum: 1933764614 3710173996 1777251044 721005618

Simulink Version: 25.1 Model Version: 1.6

Model Author: tecnicomcbti

Date: Tue Sep 30 18:06:18 2025

User ID: tecnicomcbti

Model Path: /home/tecnicomcbti/cursoMBD/

model_based_design_with_real_time_hardware_t

esting/Tests/PIDControl/

MOT_CTRL_CTRL_FUN_004.slx

Solver Name: ode3

Solver Type: Fixed-Step Fixed Step Size: 0.0001

 Simulation Start Time:
 2025-09-30 18:20:55

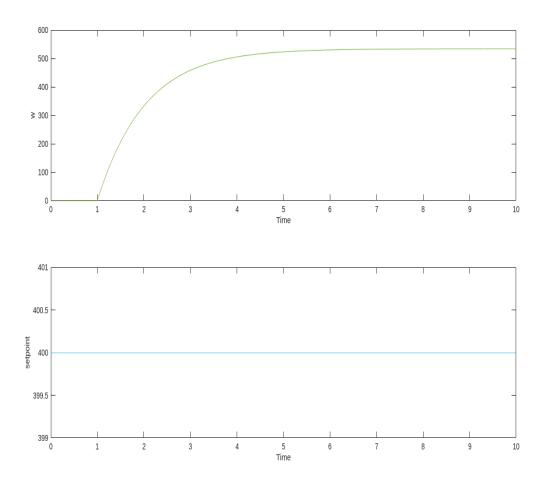
 Simulation Stop Time:
 2025-09-30 18:20:57

Platform: GLNXA64

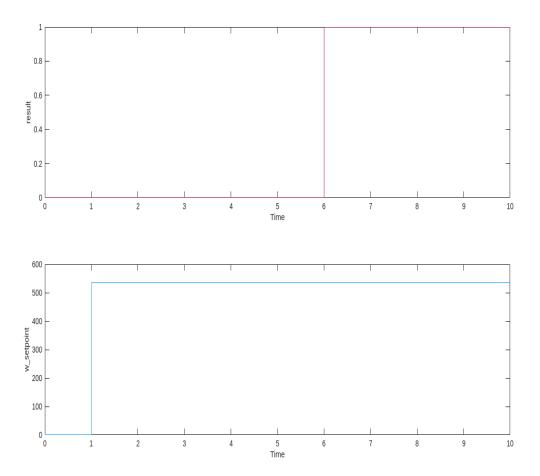
Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plo t
w	double	i +	Continuous	linear	union	Link
setpoint	double	i +	0.001	zoh	union	Link
result	boolean	i +	0.0001	zoh	union	Link
w_setpoint	double	i ₊	0.0001	zoh	union	Link
flag	boolean	i	0.0001	zoh	union	<u>Link</u>

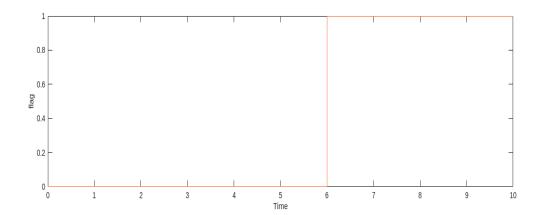
Name	Data Type	Units	Sample Time	Interp	Sync
w	double		Continuous	linear	union
setpoint	double		0.001	zoh	union



Name	Data Type	Units	Sample Time	Interp	Sync
result	boolean		0.0001	zoh	union
w_setpoint	double		0.0001	zoh	union



Name	Data Type	Units	Sample Time	Interp	Sync
flag	boolean		0.0001	zoh	union



Simulation Logs:

Sample time of 'MOT CTRL CTRL FUN 004/Test Sequence' 'Output Port 2' and the sample time specified for this signal by 'MOT CTRL CTRL FUN 004/Input Conversion Subsystem/SigSpec 1' must match.

Sample time of 'MOT_CTRL_CTRL_FUN_004/Test Assessment' 'Input Port 2' and the sample time specified for this signal by 'MOT_CTRL_CTRL_FUN_004/Input_Conversion Subsystem/SigSpec_1' must match.

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Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

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