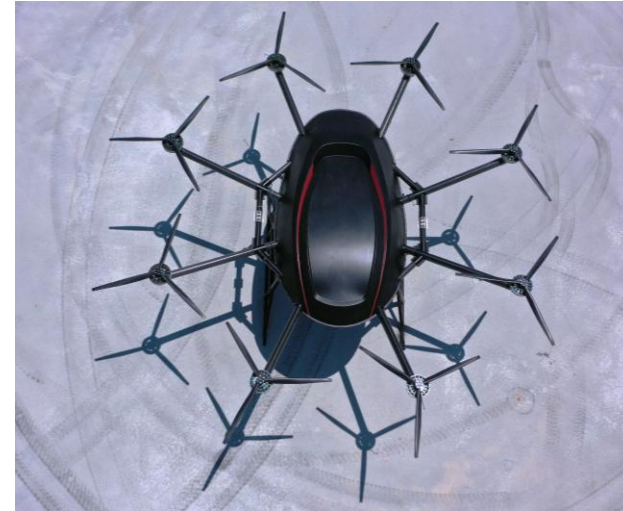




World's Solution Center...



30+ YEARS **3 SECTORS** **10 COMPANIES** **1000+ STAFF** **120M+\$ SALES**

1

ROBOTIC & AUTOMATION

ROBOTIC MANUFACTURING TECHNOLOGIES

- WELDING SYSTEMS
- ASSEMBLY & TRANSFER SYSTEMS

GLASS & LOGISTIC TECHNOLOGIES

- FLAT GLASS HANDLING & PROCESSING SYSTEMS
- END OF LINE AUTOMATION
- AUTOMATIC WAREHOUSE & INTRALOGISTIC SYS.



ROBOTIC TECHNOLOGIES



MASCHINENBAU GmbH



GLASS & TRANSFER TECHNOLOGIES



AUTOMATION GmbH



BODY JOINING LINES



ENGINE FRAME INTEGRATION



REAR AXLE AND AXLE INTEGRATION



RAIL SYSTEM INTEGRATION



AUTOMATIC WAREHOUSE SYSTEMS



TRANSFER SYSTEMS



PALLETING WITH UNMANNED VEHICLE



PALLETING SYSTEMS

2

DEFENSE & AEROSPACE

- MOTION CONTROL TECHNOLOGIES
- UNMANNED SYSTEM TECHNOLOGIES
- AVIATION TECHNOLOGIES
- CRITICAL PRODUCTION TECHNOLOGIES



DEFENSE TECHNOLOGIES



AEROSPACE TECHNOLOGIES



AEROSPACE TECHNOLOGIES



SUB-SYSTEM SOLUTIONS FOR LAND, AIR AND MARINE PLATFORMS



MOTION CONTROL PLATFORMS



UAV



TESTSYSTEMS

3

ENERGY & MOBILITY

ENERGY & ELECTRO-MOBILITY TECH.

- ENERGY STORAGE SYSTEMS
- E-MOBILITY SOLUTIONS

VEHICLE ENGINEERING TECH.

- VEHICLE MODIFICATION TECHNOLOGIES
- VEHICLE ENGINEERING



ELECTROMOBILITY & ENERGY TECHNOLOGIES



BATTERY SYSTEM TECH. GmbH



MODIFICATION CENTER



LIGHT COMMERCIAL VEHICLES



ELECTRIC BUS



BATTERY SOLUTIONS



FORD TRANSIT 'CUSTOM' FAMILY



FORD TRANSIT SCHOOL BUS



ACCESSORIES



Defense Technologies Inc.

OUR FACILITIES

PRODUCTION FACILITY



Makine OSB – Dilovası /
Kocaeli / Türkiye

ASSEMBLY and MANUFACTURING FACILITY



Şekerpınar – Gebze / Kocaeli
/ Türkiye

HEAD OFFICE R&D CENTER



Sanayi Mah. Teknopark
Bulvarı No: 1 / 7C Pendik /
İstanbul / Türkiye

R&D and PRODUCTION FACILITY



HAB OSB – Ankara / Türkiye

ALTINAY DEFENSE TECHNOLOGIES

MOTION CONTROL SYSTEMS



ELECTRO-OPTIC MONITORING SYSTEMS



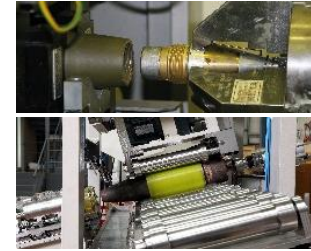
WEAPON SYSTEMS



NAVAL SYSTEMS



AMMO DISPOSAL AND EXPLOSIVE PRODUCTION SYSTEMS

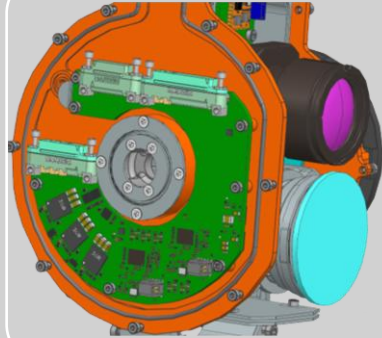


UNMANNED SYSTEMS



POWER ELECTRONIC SERVO DRIVERS

G-MOTION



Bus Voltage (DC):
18V-36V

**Rated Motor
Current:** <15A

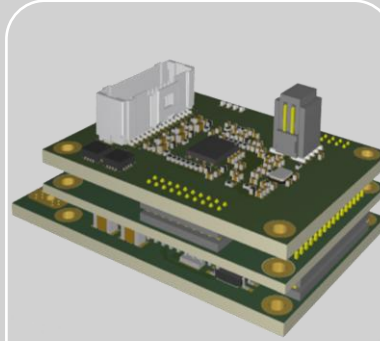
**Max Output
Power:** 300W

Weight: 0.1 kg

Cooling: Chasis

**Operating
Temperature:**
-40°C - 60°C

S-MOTION



Bus Voltage (DC):
18V-36V

**Rated Motor
Current:** <15A

**Max Output
Power:** 300W

Weight: 0.1 kg

Cooling: Chasis

**Operating
Temperature:**
-40°C - 85°C

M-MOTION



Bus Voltage (DC):
18V-36V

**Rated Motor
Current:** <80A

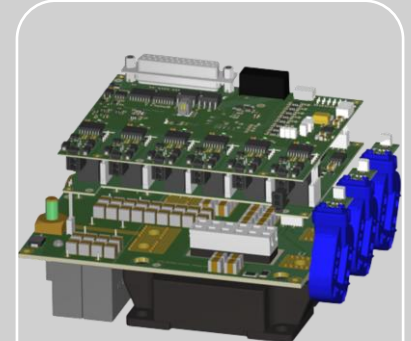
**Max Output
Power:** 2.2kW

Weight: 6.7 kg

Cooling: Chasis,
Fan

**Operating
Temperature:**
-40°C - 60°C

E-MOTION



Bus Voltage (DC):
150VDC

**Rated Motor
Current:** <300A

**Max Output
Power:** 40 kW

Weight: 3 kg

Cooling: Fan

**Operating
Temperature:**
-20°C - 50°C

Amaç

Yüksek hassasiyetli hız/pozisyon kontrolü, verimli ve sessiz sürüş, güvenli çalışma.

Nasıl (Algoritma & Mimari)

FOC (d-q) + opsiyonel MTPA/MTPV; Trapezoid ve S-curve Trajectory Generator.

Çevrimler: 20 kHz akım (PI d/q), 1–2 kHz hız, ~1 kHz pozisyon; feedforward + anti-windup.

Sensörler: Resolver, BiSS-C/SSI, QEP, Hall, Sensörsüz (e-observer/PLL).

Güvenlik: Over-current/voltage, stall, encoder hatası → Fault Handler (safe stop).

Haberleşme: CANopen DS301/DS402

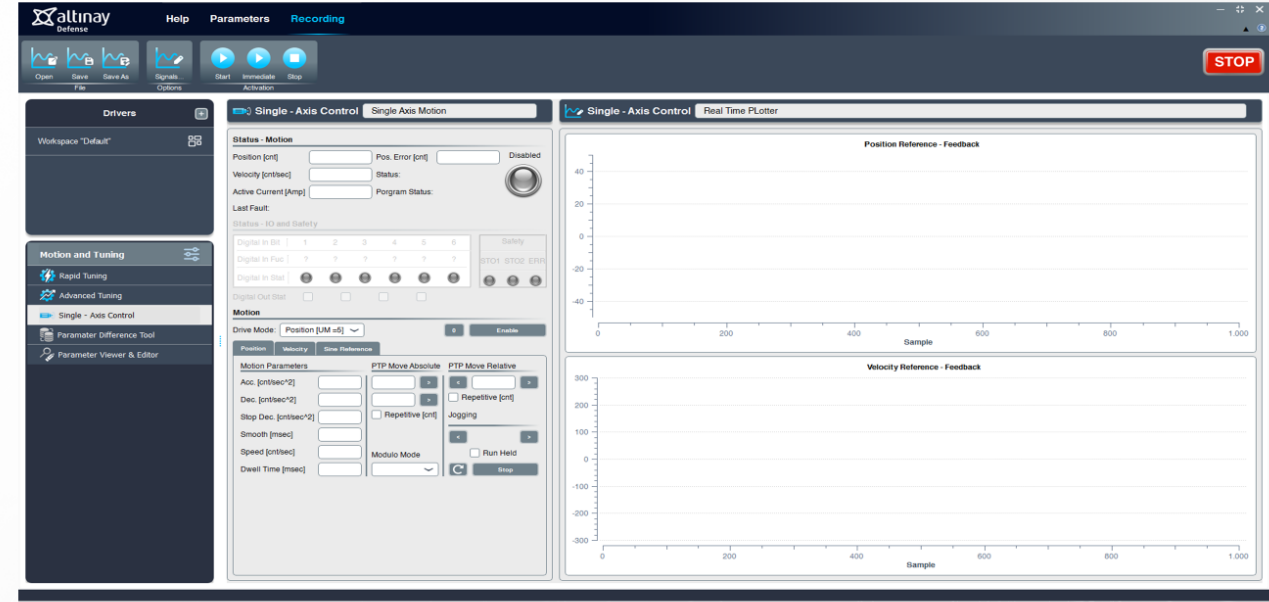
(komut/parametre), obje sözlüğü, bootloader/OTA.

Test & Doğrulama

Motor parametre tanımlama (Rs, Ld/Lq, Ke), encoder hizalama.

Akım çevrimi bode ve kararlılık; hız/pozisyon step & trajectory izleme.

Kullanıcı Arayüzü (UI)



TEKNİC-2310P motoru üzerinde test edildiğinde, datasheet değerleriyle %95 doğruluk oranı

Select Board

DRV8305 and F28379D Launchpad

Communication Port

COM12

Baud rate : 12e6

Host Serial Setup

Required Inputs

Input DC Voltage:

24

V

Nominal Current:

7.1

A (peak value)

Nominal Speed:

4000

rpm

Pole pairs:

4

Nominal Voltage:

24

V

Sensor Selection:

Sensorless

Note: Following inputs are not required for sensorless

Position Offset:

0.08

Per Unit Position

Total QEP Slits:

1000

Steps

1. Provide required inputs.
2. Press **Ctrl+D** to update the workspace
3. **Build, Deploy & Start** required [target models](#)
4. Select port in [Host Serial Setup](#), [Host Serial Receive](#) and [Host Serial Transmit](#)
5. **Run** this model to estimate motor parameters
6. To modify the parameters of the estimation algorithm

Test Status

Run Stop

Estimated Motor Parameters

Rs	0.4950	Ohm
Ld	1.7007e-04	H
Lq	1.7538e-04	H
Bemf	4.6019	Vpk_LL/krpm
Motor Inertia	1.0109e-05	Kg.m^2
Friction constant	4.5492e-05	N.m.s

Save Parameters Open Model

Signal Conditioning, Scaling and Advanced Algorithm Parameters

Fault Status

Over Current

Under Voltage

Serial Communication

Phase difference between V & I is in linear region

Ld Test

Lq Test

Signal from Target

PhaseDiff (deg)

Target Models (F28379D + DRV8305):

[mcb_param_est_f28379d_DRV8305](#)
[mcb_param_est_sensorless_f28379d_DRV8305](#)

Target Models (F28069M + DRV8312):

[mcb_param_est_f28069m_DRV8312](#)
[mcb_param_est_sensorless_f28069m_DRV8312](#)

Models to calibrate Hall Offset:

[mcb_pmsm_hall_offset_f28069m](#)
[mcb_pmsm_hall_offset_f28379d](#)

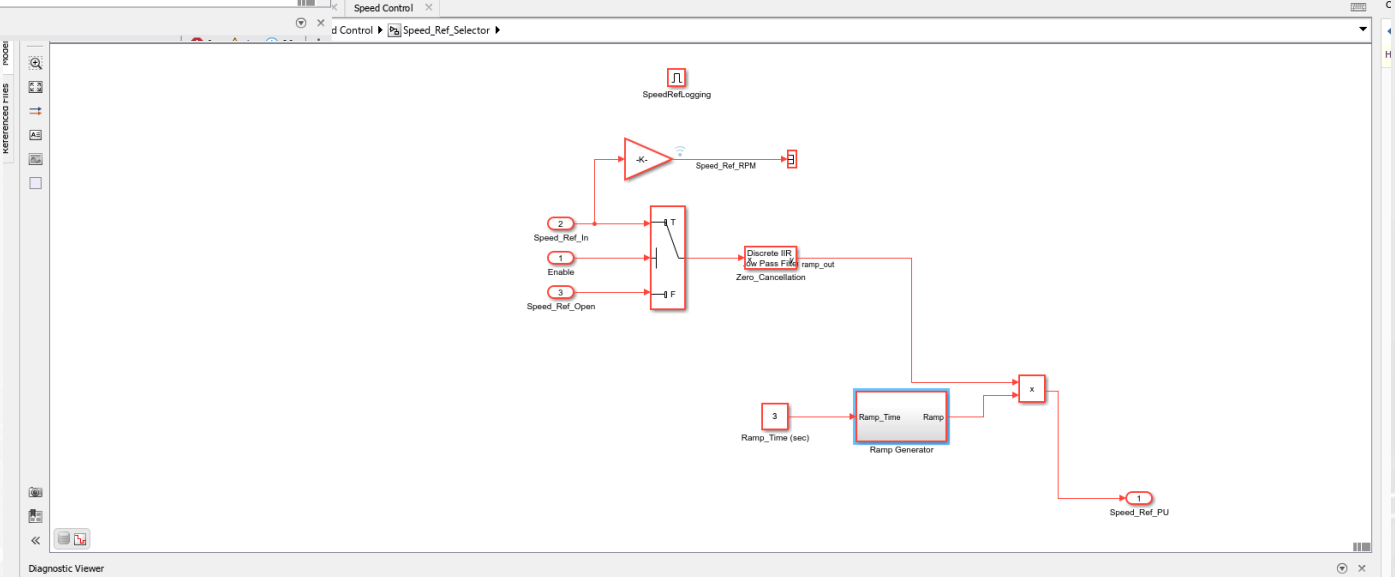
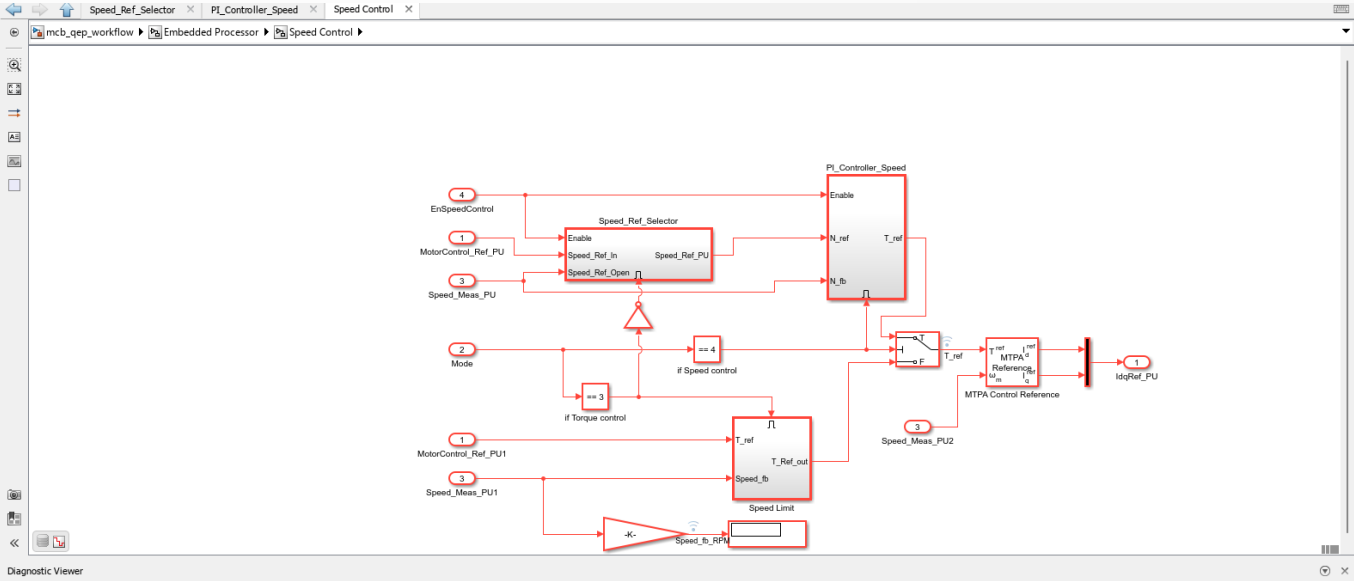
Models to calibrate QEP Offset:

[mcb_pmsm_qep_offset_f28069m](#)
[mcb_pmsm_qep_offset_f28379d](#)

PMSM FOC Speed Control Host

[illegible]

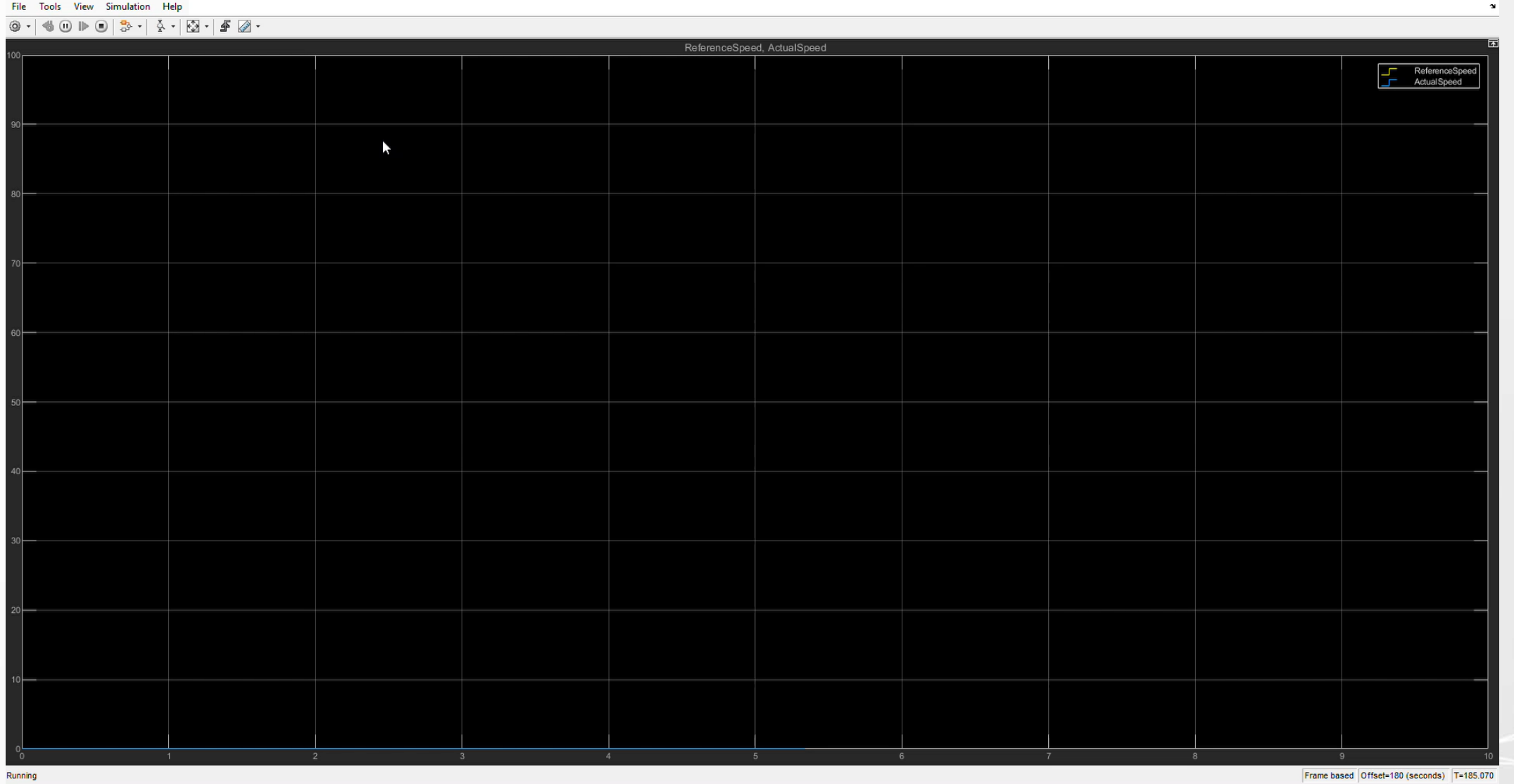
Speed Kontrol Rampa Fonksiyonu Eklenmesi



Rampa Fonksiyonu Olmadan Hız Kontrolü



Rampa Fonksiyonu Eklenerek Hız Kontrolü



Port

COM3

Baudrate

0

Disconnect

Connect

Stop Log

Start Log

SAVE

File Name

Log

Start Acquisition

PWM Enable

Node

SpeedRef-SpeedFeedback

IdRef-IdFeedback

IqRef-IqFeedback

Ia-Ib

Ia-Position

Mec_Pos-FicPos

Node

PositionRef

SpeedRef

IqRef

IdRef

CLEAR

STOP

Position

-360 -280 -200 -120 -40 40 120 200 280 360

0

Speed

-100 -80 -60 -40 -20 0 20 40 60 80 100

0

Iq

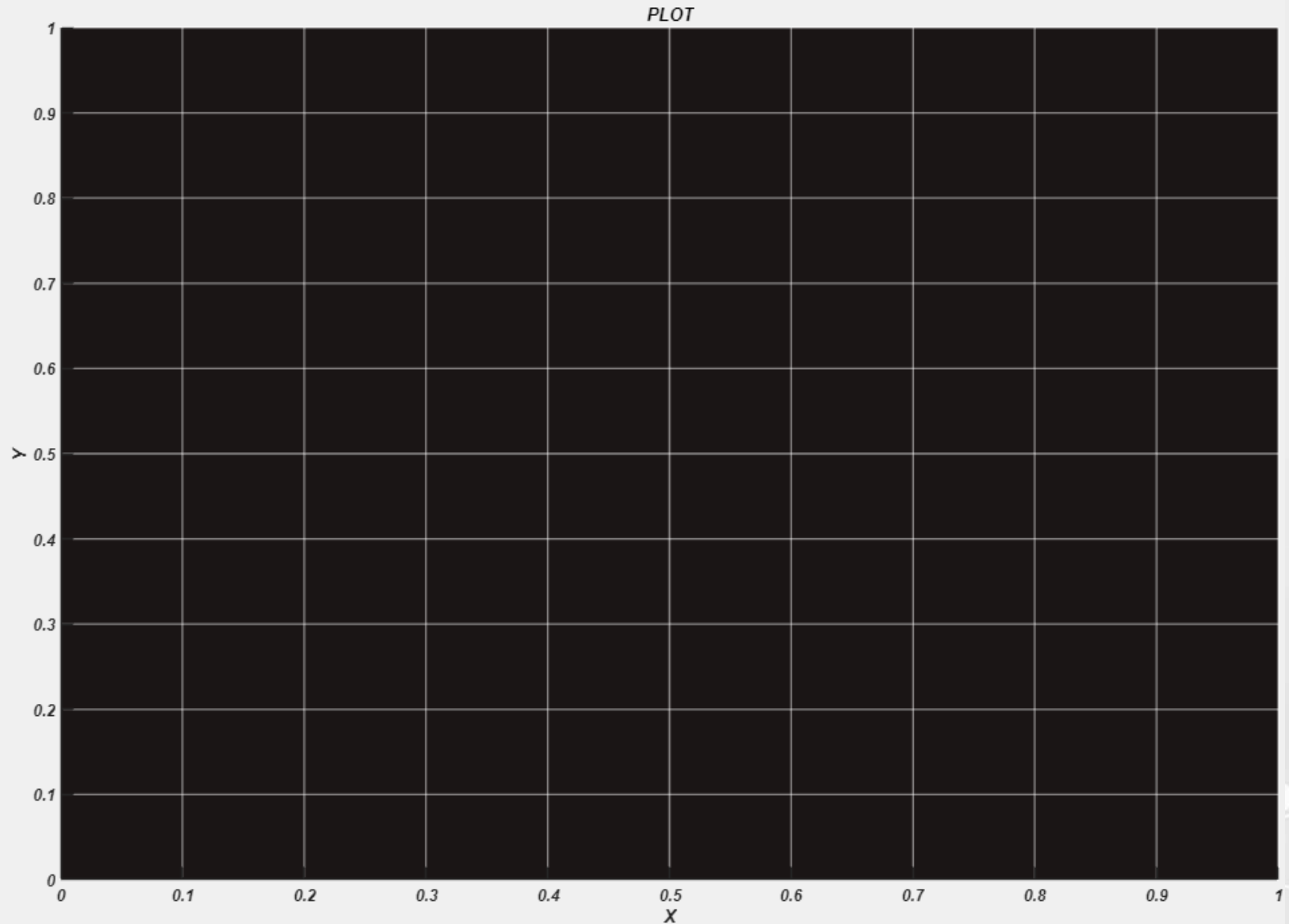
-0.2 -0.15 -0.1 -0.05 0 0.05 0.1 0.15 0.2

0

Id

-0.2 -0.15 -0.1 -0.05 0 0.05 0.1 0.15 0.2

0



Motor Pole Pair

0

Edit Field

0

Edit Field2

0

Edit Field6

0

Edit Field3

0

Edit Field4

0

Sensor Type

Option 1

Edit Field7

0

Edit Field8

0

Motor Pole Pair

0

Edit Field

0

Edit Field2

0

Sensor Type

Option 1

Edit Field3

0

Edit Field4

0

START MOTOR IDENTIFICATION TESET

Edit Field5

0

Edit Field5

0

Edit Field5

0

Save Parameters

Open Model

Position Controller Optimization Method

Node

Position Proportional

0

Position Integrator

0

Position Derivative

0

Calculate Position Controller

Speed Controller Optimization Method

Node

Speed Proportional

0

Speed Integrator

0

Speed Derivative

0

Calculate Speed Controller

Torq Controller Optimization Method

Node

Torque Proportional

0

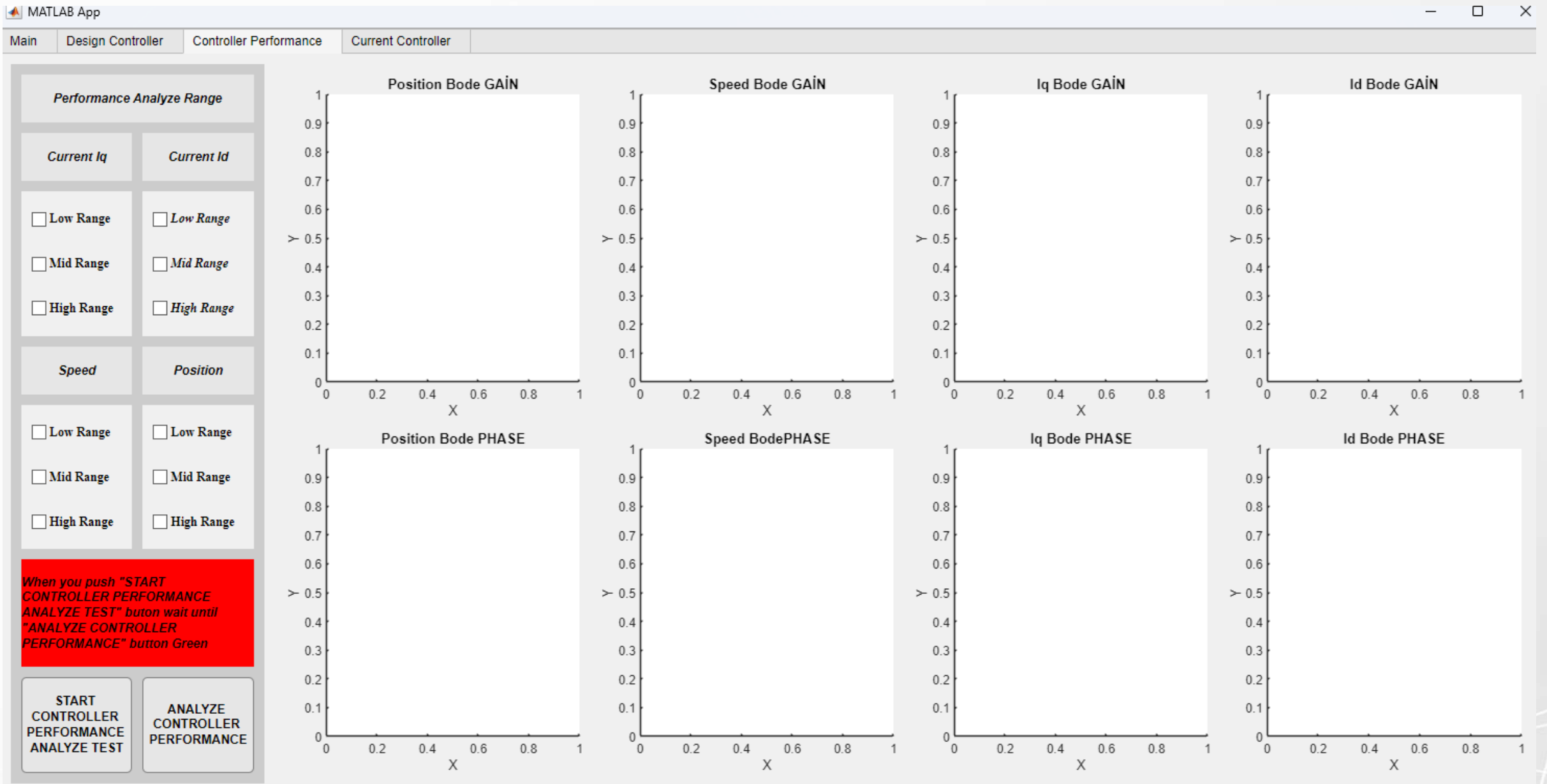
Torque Integrator

0

Torque Derivative

0

Calculate Toque Controller



Kullanılan Matlab Toolboxları

- **Embedded Coder**
- **Simulink Coder**
- **Simulink**
- **Stateflow**
- **Motor Control Blockset**
- **C2000 Microcontroller Blockset**
- **MATLAB Coder**
- **Fixed-Point Designer**
- **Control System Toolbox**
- **DSP System Toolbox**
- **APPDesigner**



Teşekkürler