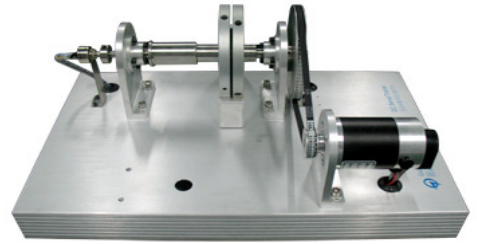


DC Servo Control Trainer

Overview

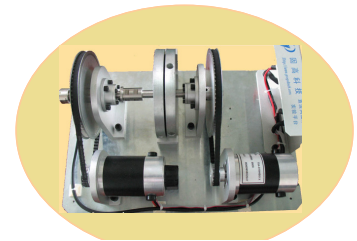
The DC servo control trainer is one of the basic experiment devices for elementary control and automation courses such as automation control, mechatronics, mechanical engineering, etc. Various experiments could be performed, e.g. system identification, modeling of DC servo motor, controller design and controller performance analysis, etc. MatLab Simulink based platform makes the system easier to use.



Model No.: GSMT2012

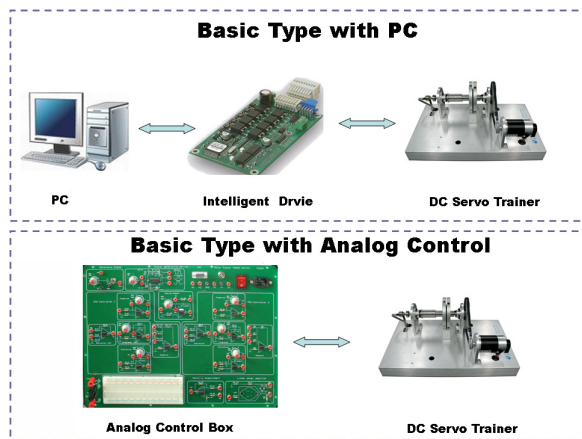
Main Feature

- Modularized design, easy to configure or upgrade.
- DC servo with encoder feedback, small size, fast response.
- Use intelligent servo driver be used in open loop, semi-close loop and full close loop control.
- MatLab toolbox, Easy Motion Studio, and VC++ Dll file are provided.



Model No. GSMT2013

Control Mode



(I) Digital Control Using PC

The basic model (GSTM2012) uses PC to communicate with the intelligent driver and the intelligent driver controls the motor with velocity and position.

(II) Analog Control

The analog control module directly uses amplifier to control the motor by the analog circuit. User could implement simple PID controller using this analog control module.

Experiments contents

System identification; DC servo system modeling; controller design; analog PID controller circuit design (with Analog Control Module); controller analysis, etc

DC Servo Control Trainer

System Configuration

Name	Description	Remark
(I) Hardware System		
Device Main Body	DC Servo Timing Belt	
Electric Box	24V DC Output Intelligent Servo Driver	
Motion Controller	GT-400-SV Motion Controller	For GSMT2014 only
Analog Control Module	Linear Amplifier	Optional
(II) Control System		
1. MATLAB 2. Easy Motion Studio 3. Analog Control Module		
(III) Specifications		
Motor	DC 70W	Ratio 1:4
Encoder	DC 1000P/R	Potentiometer Linearity: $\pm 1.5\%$
Weight	<20Kg	Power AC220V 50HZ 1A
Analog Control Accuracy	± 0.5 Degree	LxWxH 450mmx280mmx190mm

Ordering Guide

Model No.	Name	Configuration
GSMT2012	DC Servo Control Trainer (Basic)	DC servo control system main body (Basic) Electric Box (Basic) Easy Motion Studio MATLAB Tool Box Analog Control Module (Optional)
GSMT2013	DC Servo Control Trainer (Disturb)	DC servo control system main body (Disturb) Electric Box (Disturb) Easy Motion Studio MATLAB Tool Box Analog Control Module (Optional)
GSMT2014	DC Servo Control Trainer (Mix)	DC servo control system main body (Disturb) Electric Box (Disturb) GT-400-SV Motion Controller Easy Motion Studio MATLAB Tool Box

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