

Setting the Servo Origin of the Fiber Optic Sensor



Article Overview

The servo origin is set by performing a homing procedure that moves the servo to a known reference point, defining the zero or home position for accurate control.

Understanding Homing and Origin

Homing is the process that allows the servo and controller to know the exact physical position of the servo axis. For fiber-optic servo systems, this ensures that the servo can move accurately even when controlled remotely or in electrically noisy environments . The origin, or home position, is the point the system considers as zero, which can be offset from the physical end of travel if needed .

Steps to Set the Servo Origin

- Install the Servo and Fiber-Optic Components
- Connect the fiber-optic transmitter to the RC receiver and the receiver module to the servo .
- Ensure the fiber-optic wire is securely inserted to the correct depth (typically 17 mm) and marked for reference .
- Power the servo and controller from the appropriate battery or voltage source, using a stabilizer if necessary .
- Define the Home Sensor or Reference Point
- Identify a physical reference, such as a proximity switch or mechanical stop, near the end of travel

Article Content

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Optical Fiber Sensors and Sensing Networks: Overview of the Main

Optical fiber sensors present several advantages in relation to other types of sensors. These advantages are

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Homing Techniques

Home to an Explicit Location.qcp This homing routine allows the servo to set the home (zero) for the axis at an arbitrary position (i.e.

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Fiber Optic Sensor Installation Methods

This article provides an overview of fiber optic sensor installation methods to help readers understand how

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What is a fibre optic sensor? | Sensor Basics: Principle ...

Outline The fibre optic sensor has an optical fibre connected to a light source to allow for detection in tight spaces or where a small

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Optical Fiber Sensors Guide

Optical fiber sensors offer attractive characteristics that make them very suitable and, in some cases, the only viable sensing

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Low voltage optical fiber positioner robot based on minimum ...

Each optical fiber positioning robot consists of two rotary axes (theta and phi), positioning the optical fiber on the focal

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How to Setup Fiber Optic Sensor?

After fiber optic is powered on, LED displays the current light intensity is 0. We can see there are two holes

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Performance of digital servos in an optical frequency transfer network

The results demonstrate that the performance of the three digital servos is sufficient for high-precision optical

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Arduino Optical Fiber Transmission Setup

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KEYENCE America provides FS-N40 series; This series is able to detect virtually anything, in any

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Full investigation of the resonant frequency servo

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The fibre-optic receiver along with the servomechanism connected to it may be installed under the engine cowl. Although the device

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FIBER OPTIC SENSOR GUIDE

What is a Fiber Optic Sensor? ic amplifier and a unit. The amplifier emits and receives light energy and converts it to

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Sensor Setting Guide

Sensor Setting Guide available in all major Asian and European languages. An essential support tool for personnel configuring

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Sensors: Banner Fiber Optic Amplifiers Principles of Operation

Sensors: Banner Fiber Optic Amplifiers Principles of Operation Banner Engineering 7.37K

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SureServo2 Homing Tutorial from AutomationDirect

Most of the time though, you will want to avoid hitting the limit sensors and instead, add a third sensor to mark the origin. You would

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Homing Techniques

This homing routine allows the servo to find the center of travel for an axis and set that as the home location. The routine is similar to

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A method to improve the modulation depth servo accuracy of an ...

The development of integrated fiber-optic gyroscopes using piezoelectric modulation (PEM) represents a significant

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Digital Fiber Optic Sensor

Digital Fiber Optic Sensor FS-V30 series View Catalog Price Ask an Expert 1-888-539-3623

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What is a Fiber Optic Sensor?

A fiber optic sensor operates with an optical fiber cable connected to a dedicated light source. These sensors offer great mounting

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Optical Sensors for Servo Motor Applications in Industrial Automation

Discover how optical sensors enhance servo motor performance in industrial automation. This article covers working

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Homing Setting

Use the Jog window to create various start-up scenarios (axis on the homing sensor, axis forward of the homing sensor, axis reverse

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Fiber-optic sensor

A fiber-optic sensor is a sensor that uses optical fiber either as the sensing element ("intrinsic sensors"), or as a means of relaying

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(PDF) Full investigation of the resonant frequency servo loop for ...

Resonator fiber-optic gyro (RFOG) is a high-accuracy inertial rotation sensor based on the Sagnac effect. A high

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Fiber Optic Sensors: Fundamentals, Principles & Applications

Radiation absorption creates electronic excited states that are trapped by localized defects for extended periods of time. Heating the

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Fiber Sensors

Optical fiber is comprised of a central core with a high refractive index surrounded by cladding with a low refractive index. When light

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Fiber optic sensor embedded in robotic systems for 3-D orientation ...

Robot's orientation causes the change in the macro-bend radius of the sensor. Our proposed sensor analyzes the

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A 4 mm Micro Servo Control System in Fiber Positioner

However, due to an absence of sensor feedback, the fiber positioner in DESI persists in employing an open-loop

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INTELLIGENT DIGITAL FIBER OPTICAL SENSOR

2 Wh optical fiber to the launch end, and multi core optical fiber to the receiving end.

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Homing Setting

This is an important setting if there is a chance the sensor flag (the green piece on the carriage above) could be located between the

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Specifying Fiber Optic Sensors

Fiber optic - separate amplifier connected via a fiber optic cable to an optical sensor head Lighting Up an Amp Fiber

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Micro-vision servo control of a multi-axis alignment system for optical ...

Share this article Article information Abstract This paper describes a novel optical fiber assembly system featuring a

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CSM_FiberSensor_TG_E_2_1

Fiber Sensors almost always use LEDs as the light source. The light emitted from LEDs oscillates in the vertical and horizontal

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How to Adjust

How to Adjust - Set up Keyence Fibre Optic Teach Sensor on JDA Filling & Capping

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Fiber Optic Sensor : Types, Working, Interfacing & Its Applications

The fiber optic sensor working principle is that transducer changes some optical fiber system parameters like

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Keyence Digital Fiber Optic Sensor (FS-N11CN) Setup

Introduction This guideline explains how to setup and mount the Keyence Digital Fiber Optic Sensor (FS-N11CN). Tool

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Fiber Optic Sensors: Fundamentals and Applications

Presentation Focus The major focus of this presentation will be on distributive fiber optic sensors which has seen the greatest usage

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