





Training Agenda

TM5 Collaborative Robot - Starter

HMKTrc-TM5



Certificate Number 5765 ISO 9001

HMK Automation & Drives – Training Agenda

Course Summary:

The single day training course is intended as a basic/intermediate level training course for the TM5 Collaborative Robot and associated TM Flow™ software system.

Included in the course is an overview of the core functionality of the TM5 unit and basic programming using the TM FlowTM software system. The training will focus on developing and implementing software programs, including manual teaching, pick and place, palletisation and vision-based programs, which may then be tailored to your specific applications. Time will then be allocated towards the end to discuss how the material covered relates to your specific area of interest.

Who it is intended for?

The course is aimed at system engineers and advanced technical level personnel, who may be operating the unit.

The course aims to equip the trainee with the necessary knowledge and tools to perform commissioning and programming of the TM5 Collaborative Robot.

Prerequisites:

Good PC skills are required.

A basic understanding/knowledge of robotics and software programming would be beneficial but is not essential. A basic understanding/knowledge of vision systems and image processing would also be advantageous but is not essential.

What to bring:

All required training materials are provided by HMK. Attendees should come prepared to make detailed notes.

Where is the course held?

Training courses are held at HMK Automation & Drives, which is located in Congleton, Cheshire. Please access the HMK website via the link below for a map and further details on the location of our offices.

How to Find Us

http://www.hmkdirect.com/contact/





Day 1 - Start time 9:00 - 9:30am

1. Introduction

- 1.1. Introduction to HMK
- 1.2. Introduction to Techman

2. System Overview

- 2.1. TM5 Specification
- 2.2. Robot Arm
- 2.3. Control Box and Pendant
- 2.4. Safety Features

3. Start Up

- 3.1. Modes of Operation
- 3.2. Safe Start

4. Basic Programming

- 4.1. HMI Interface
 - 4.1.1. User Settings
 - 4.1.2. Project Creation
- 4.2. Manual Teaching
- 4.3. Core Functionality
 - 4.3.1. Coordinate Systems
 - 4.3.2. Point Manager
 - 4.3.3. Controller
 - 4.3.4. Variables

5. Application 1 – Point to Point Cycle

6. Application 2 – Basic Palletisation



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- 7. Vision System
 - 7.1. Introduction
 - 7.2. Hardware Overview
 - 7.3. Modes of Operation
 - 7.4. Parameter Settings & Calibration
- 8. Application 3 Vision Based Pick and Place
- 9. Application 4 Barcode Driven Palletisation
- 10. Application Specific Considerations and Discussion
- 11. Questions, Information and Support

Finish - Approx. 5:00pm

