

## Control Circuits and Reading of Electrical Drawings

*Kuala Lumpur (Malaysia)*

*2 - 6 June 2025*

UK Traininig

# PARTNER



# Control Circuits and Reading of Electrical Drawings

Code: OG28 From: 2 - 6 June 2025 City: Kuala Lumpur (Malaysia) Fees: 4900 Pound

## Introduction

Control circuits and electrical drawings are integral to the operation of electrical systems in industrial and commercial environments. This course is designed to provide participants with a solid understanding of control circuits, their functionality, and how to accurately read and interpret electrical drawings. Through practical exercises and case studies, participants will develop the skills necessary to troubleshoot, design, and maintain control systems, ensuring operational efficiency and safety in electrical installations.

## Course Objectives

- Understand the fundamentals of control circuits and their key components.
- Gain the ability to read and interpret various types of electrical drawings.
- Learn the standards and symbols used in electrical schematics.
- Acquire skills to troubleshoot, design, and enhance basic control circuits.
- Apply knowledge to analyze and optimize control systems in real-world settings.

## Course Outlines

### Day 1: Basics of Control Circuits

- Introduction to control systems and circuits.
- Components of control circuits relays, switches, contactors, etc..
- Basic theory behind electrical and control circuits.
- Overview of common applications for control circuits.
- Safety protocols for operating and maintaining control circuits.

### Day 2: Electrical Drawing Basics

- Different types of electrical drawings schematic, wiring, layout diagrams.
- Understanding electrical symbols and standards e.g., IEC, ANSI.
- How to read and interpret single-line diagrams.
- Introduction to ladder logic diagrams.
- Hands-on practice: Analyzing and interpreting basic electrical drawings.

### Day 3: Control Circuit Operation and Analysis

- Different control circuit configurations manual, automatic, and semi-automatic.
- Common control circuit types start-stop, reversing, interlocking.
- Techniques for testing and troubleshooting control circuits.
- Using timers and sensors in control circuits.



- Workshop: Building and analyzing a basic control circuit.

#### Day 4: Advanced Electrical Drawings

- In-depth exploration of wiring diagrams and connection layouts.
- Cross-referencing complex schematics for detailed analysis.
- Interpreting control panel layouts and terminal connections.
- Identifying and resolving common issues in electrical drawings.
- Case study: Analyzing and interpreting a real-world electrical system drawing.

#### Day 5: Designing and Improving Control Systems

- Principles of designing efficient control circuits.
- Creating electrical drawings using modern software tools.
- Techniques for improving efficiency and reliability in control systems.
- Integrating advanced technologies in control systems e.g., IoT, automation.
- Final project: Designing a control circuit and corresponding electrical drawings.





# Blackbird Training Cities

## Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Anney (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)  
(Netherlands)



Podgorica (Montenegro)



Batumi (Georgia)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



# Blackbird Training Cities

## USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

## Africa



Baku (Azerbaijan)  
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney (Australia)



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City (Kuwait)



Pulau Ujong (Singapore)



Jakarta (Indonesia)



Amman (Jordan)



Beirut (Lebanon)





## Blackbird Training Cities

### Asia



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



## Blackbird Training Clients



UK Training  
**PARTNER**



## Blackbird Training Categories

### Management & Admin

Professional Skills  
Finance, Accounting, Budgeting  
Media & Public Relations  
Project Management  
Human Resources  
Audit & Quality Assurance  
Marketing, Sales, Customer Service  
Secretary & Admin  
Supply Chain & Logistics  
Management & Leadership  
Agile and Elevation

### Technical Courses

Hospital Management  
Public Sector  
Special Workshops  
Oil & Gas Engineering  
Telecom Engineering  
IT & IT Engineering  
Health & Safety  
Law and Contract Management  
Customs & Safety  
Aviation  
C-Suite Training



**BLACKBIRD**  
FOR TRAINING

 International House 185 Tower Bridge  
Road London SE1 2UF United Kingdom

 +44 7401 1773 35  
+44 7480 775526

 [Sales@blackbird-training.com](mailto:Sales@blackbird-training.com)

 [www.blackbird-training.com](http://www.blackbird-training.com)

