

# Project Brief: WorldSkills UK

## Electronic Security Systems

### Pre-Activity Pack

#### The Competition

##### Key Information

Electronic Security Engineers design, install, commissioning, repair and maintain Life Safety Systems, including Access Control, CCTV and Intruder Alarm Systems.

Working with the most advanced technologies, these engineers deliver a service that ensures you remain safe in your homes, businesses and throughout your everyday lives.

##### Overview

This competition has been designed to reflect the role of an Electronic Security Engineer and the standards that are expected within this industry. The competition is delivered by Skills for Security, who on behalf of the industry are responsible for the successful and sustainability of the Electronic Security

The competition aims to:

- raise the standard of training throughout the United Kingdom
- attract new people into the industry and reduce the skills shortage
- shine a positive light on the industry
- deliver a competition that the industry is proud to support

This competition is generously sponsored by the following industry partners; Texecom, Hikvision, CSL & Skills for Security

The competition will include the installation of a Texecom intruder alarm system and HIK vision CCTV system to industry standards and codes of practice. The systems will only require partial installation as some of the equipment will be pre-installed. Competitors should follow the specifications to meet these requirements.

Both systems will require to be programmed to relevant industry standards and specification and then fully tested, commissioned and handed over with all results recorded on documentation provided in the specification.

Faults will be added to the system once the installation is complete and the competitor will be responsible for logging in remotely and identifying the fault. This information will allow the learner to rectify the fault and re-commission the system to industry standard.

Please note the below information relates to the 2019 Competition Cycle

**The intruder alarm, as per specification, will be connected to a CSL Dualcom with all signals being tested and recorded.**

**Assessment Criteria:**

Aspect	Description	Max. marks
A	Health and Safety for Competition	3
B	Planning for Competition	2
C	CCTV - Installation	11
D	Intruder - Installation	22
E	CCTV - Programming	10
F	Intruder - Programming	10
G	CCTV - Testing	9
H	Intruder - Testing	12
I	CCTV - Handover	6
J	Intruder - Handover	6
K	Intruder - Signalling	9
		100

**A panel of judges have been drawn from industry, colleges and training providers. The judges' quality assure marks before results are announced.**

## Intruder Competition Instructions:

### **Install Texecom intruder alarm system and HIK vision CCTV system**

- Cabling will be installed for all devices including detectors, signalling, RKP, SAB & mains electricity
- Panel will be pre-installed as per specification
- PSU will be pre-installed as per specification
- All cabling will be marked in the panel

### **Day 1**

Complete the installation as per specification & drawing

- Install all detection device
- Terminate wiring for devices that are wired
- Power up system (safely)
- Connect signalling device
- Add wireless detection devices

- Programme system as per specification
- Connect system to the Texecom Cloud via the app
- Test system
- Record results
- Commission system
- Complete all system documentation i.e. commissioning checklist, handover checklist, electrical checks and readings & completion certificate
- Hand the system over to the assessor

### **Day 2**

- Carry out a remote maintenance
- Identify and record faults
- Test/rectify faults
- Carry out a full maintenance
- Record results
- Re-commission the system
- Install and Test signalling device

## **CCTV Competition Instructions:**

### **Key Information**

Cabling will be installed for all devices including Cameras, Router, POE, NVR & Mains electricity

- Back boxes of Cameras will be pre-installed
- All equipment will be boxed and available in the booth
- All cabling will be marked

### **Day 1**

- Complete the installation as per specification & drawing
- Terminate wiring for cameras, router, POE switch & NVR (RJ45 connections and BNC) •
- Install remaining cameras
- Unbox all equipment and set up neatly, correctly and safely
- Power up system (safely)

- Connect NVR to laptop
- Programme system as per specification
- Configure cameras IP addresses
- Configure cameras settings
- Test system
- Record results
- Commission system
- Complete all system documentation i.e. commissioning checklist, handover checklist, electrical checks and readings and completion certificate
- Hand the system over to the assessor

## **Day 2**

- Connect NVR to HIK cloud for remote viewing
- Identify and record faults
- Test/rectify faults
- Carry out a full maintenance
- Record results
- Re-commission the system