

Pearson BTEC Level 5 Higher Nationals in Engineering (RQF)

# Unit 46: Embedded Systems

## Unit Workbook 4

in a series of 4 for this unit

Learning Outcome 4

# Applications of Embedded Systems

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Sample

*Foreword*

Embedded systems can be found in many modern devices and applications; motor vehicles, smart buildings, medical equipment, offices, wearable devices etc. The purpose of this workbook is to introduce, by way of a picture, several applications for each of the preceding categories. Your task is to research these or other devices, explain their uses and investigate emerging applications of embedded systems.

Sample

## Applications of Embedded Systems

### Motor Vehicles

We may consider an embedded system to be a (perhaps artificially intelligent) dedicated functional set of electronic systems, sensors, and maybe electromechanical actuators. Within a motor vehicle, we may see embedded systems such as;

#### Airbag Controllers



#### Event Data Recorder



## ABS Braking System



## Navigation System





## Rain-sensing System



## Cruise Control

