Future Learn

Certificate of Achievement

Matthias Giger

has completed the following course:

DESIGN AND PROTOTYPE EMBEDDED COMPUTER SYSTEMS

RASPBERRY PI FOUNDATION AND NATIONAL CENTRE FOR COMPUTING EDUCATION

This course described embedded systems, and the design processes for both the algorithms involved and the physical product. Learners had the chance to consider the design of a smartwatch as they worked through the course, and to use what they learnt to design an asset-tracking system for a school.

3 weeks, 2 hours per week

Dr Sue Sentance
Chief Learning Officer
Raspberry Pi Foundation

Raspberry Pi

Teach Computing

The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit futurelearn.com/proof-of-learning/certificate-of-achievement.

This learner has not verified their identity. The certificate and transcript do not imply the award of credit or the conferment of a qualification from Raspberry Pi Foundation and National Centre for Computing Education.

Raspberry Pi

Teach Computing

Matthias Giger

has completed the following course:

DESIGN AND PROTOTYPE EMBEDDED COMPUTER SYSTEMS
RASPBERRY PI FOUNDATION AND NATIONAL CENTRE FOR COMPUTING EDUCATION

This course described embedded systems, and the design processes for both the algorithms involved and the physical product. Learners had the chance to consider the design of a smartwatch as they worked through the course, and to use what they learnt to design an asset-tracking system for a school.

STUDY REQUIREMENT
3 weeks, 2 hours per week

LEARNING OUTCOMES
• Compare embedded systems to general-purpose systems
• Describe the design of a smartwatch as an example of an embedded system
• Apply a design process to both an algorithm and a whole product
• Develop a prototype of an embedded system

SYLLABUS
• The difference between embedded systems and general-purpose systems
• How to decompose a product into features, tasks, and components using a block diagram
• What is real-time computing and why is it important?
• How to apply an iterative design process
• Prototyping
• Designing a finished physical product
• Connecting a device to the internet to provide functionality

Future Learn