Introduction to RPi Single Board Computer Rev 1.0

Overview:

The purpose of this lesson is to provide you with an overview of the Raspberry Pi single board computer kit that you use to write, build, and execute code during this course. Later lessons will provide detailed instruction on how to boot and connect remotely. The focus of this lesson is just familiarization with the system and its use.

Prerequisites:

Prior to beginning the instruction provided in this lesson you must have completed the following:

1. Introduction to Course

Performance Outcomes:

1. Identify the Raspberry Pi as a single board computer providing many features and functions.
2. Recognize the importance of the RPi kit to the course and course coding requirements.
3. Purchase the kit at the NMC bookstore and be prepared for Week 02 activities.

Resources:

1. Raspberry Pi
2. Raspberry Pi 4 Getting Started
3. Yahboom Raspberry Pi Starter Kit
4. USB C to Ethernet Adapter

Materials:

1. None

Directions:

1. The instructor will use the resource links listed above to present the Raspberry Pi single-board computer and discuss its use in this class.

2. Research the Raspberry Pi 4B on the raspberrypi.com site or Amazon. What are options for this device? Is it available? What is the cost?

3. Use the Web to research Raspberry Pi projects. Be prepared to share one with the class.

4. Purchase the required kit from the NMC bookstore. Note: You must use this RPi kit with the SD card provided. The SD card is preconfigured with the RPi operating system (OS) and has additional software installed and configured.

5. Determine if you need an Ethernet adapter for your computer. If so, purchase at a local store or from Amazon. See the link to a USB C to Ethernet adapter in the Resources section.

Assessments:

None, but by the first session of Week 2 you must have the RPi kit and be able to connect the kit using an Ethernet port on your computer.