



EVOM™ Auto

CONFIGURING A WIRED CONNECTION

DETERMINE THE TYPE OF CONNECTION

There are two main types of connection WPI supports for use with the EVOM™ Auto, centralized networks and peer-to-peer. Use this article to determine how to set up the EVOM™ Auto for wired connectivity.



Centralized Network

This type of connection is typically used when a computer is connected to an ethernet wall socket in your building. All computers and other devices such as printers, etc., connect in the same way. This is a centralized architecture, and all communications are under the control of one or more servers.

In this type of architecture there is a DHCP (Dynamic Host Configuration Protocol) server. The function of this server is for the setup and management of IP address assignment. When a device is connected to the network, the DHCP assigns the IP address based on the rules it is set to follow.

The EVOM™ Auto is set from the factory to accept an IP address assignment from a network DHCP server. Setting up a connection of this type typically requires some IT support to determine

the assigned IP address and make this address *static*. A *static* IP address will not change every time the device is plugged in or rebooted. This will allow the EVOM™ Auto graphical user interface (GUI) to launch using the same IP address every time. No extra setup is necessary on the EVOM™ Auto for this type of connection. All setup is done on the server side.

Peer-to-Peer

This type of connection is when a device like a laptop or desktop computer is connected to another device like an EVOM™ Auto directly. When they are connected, they look the same in the network, in the sense that neither of the two devices is under control. (No DHCP function is required.) An ethernet cable will connect both devices. This setup will usually involve having a US-to-ethernet adapter on the computer. This will connect through





an ethernet cable to the ethernet connector on the EVOM™ Auto. When the adapter is connected to the computer with a device such as the EVOM™ Auto connected to it through a cable, the computer will recognize this and assign a base IP address to the adapter. This will determine the address range that is available to the ethernet adapter to use to communicate with other devices. In essence, the computer will determine a range of addresses

that do not conflict with other devices that may be plugged in on other Ethernet adapters on the same computer. It is critical that the EVOM™ Auto is connected to the ethernet adapter when performing this step, otherwise the computer will see the adapter but will not assign the address we need to capture. This step is essential to determine what IP address to assign to the EVOM™ Auto. The procedure previously written will assign an IP address to the EVOM™ Auto that is in the range of the adapter to allow it to respond when communicating through this address.

Wi-Fi Connection Interaction

The Wi-Fi connection is independent from the wired connection. If the Wi-Fi adapter is plugged into the EVOM™ Auto, it will have Wi-Fi access unaffected by the presence of an Ethernet connection. They can both operate simultaneously, but this setup is not recommended because it opens the possibility of different users interfering with each other's experiments. Both wired and wireless IP addresses will be valid.