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The Internet of things, uploading sensor readings to the Internet

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Once the sensor data are available they should be transferred onto the Internet. Again there are several possibilities to accomplish this. First, the micro-controller must get access to the network, which we do by connecting it through its WiFi station interface. Then we can access it through the TCP protocol. It is possible to install a WEB server with dynamic WEB pages onto the micro-controller, that can give access to the sensor data. The WEB server uses the HTTP protocol running on top of TCP for its communication. Alternatively MQTT is a light weight protocol, which is often used in micro-controller applications to communicate between the micro-controller and a bigger machine.
Last not least IoT platforms are available, providing dash boards with graphical user interface elements like gauges, graphs, buttons and sliders which can be used to collect data from the micro-controller, communicating through HTTP or MQTT or to control devices, attached to it.

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