

Technical Correspondence

Adding Internet Remote Control to an Antenna Rotator; EFHW and NVIS



Figure 1 — The hexbeam antenna and RCA VH226E rotator. [Tommy Walls, KC4ZZE, photo]

A Remote Antenna Rotator

I needed to rotate a hexbeam antenna (see Figure 1) from my operating position located 200 miles away. The rotator at the antenna was an RCA VH226E, and its controller was in a nearby building. A wireless network was available, but the controller did not offer wireless connectivity.

I remembered that the controller featured a handheld infrared remote. So, I used the remote to train an inexpensive infrared Wi-Fi hub, thereby programming the hub to send compatible pulses of light from its own

infrared emitter. With the hub linked to the local wireless network and positioned atop the controller (see Figure 2), I assumed I could use it as a link between the rotator controller, the internet, and me.

To make this work from my operating position, I needed a way to “talk” to the hub. The solution was provided by the *Tuya* app — an appliance-control app available for Apple and Android mobile devices.

I installed the *Tuya* app on my Android smartphone and configured it to send commands to the distant hub. *Tuya* worked perfectly, allowing me to rotate the hexbeam by forwarding commands from my smartphone to the Wi-Fi hub, which sent commands to the controller via infrared. To make sure the controller and rotator were responding appropriately, I also installed two internet-linked video cameras at the remote site so that I could watch them both.

Later, I found a way to turn the VH226E controller on and off. With the controller ac line plugged into a Kasa Smart internet-controlled ac outlet, I am now able to bring the controller online or turn it off with my smartphone. — Tommy Walls, KC4ZZE, wtw1326@gmail.com



Figure 2 — The Wi-Fi infrared hub shown atop the RCA VH226E controller. [Tommy Walls, KC4ZZE, photo]