

Low Altitude 802.11B Photography (Friday Delight)

Another recent project of mine was to simulate some of the high altitude balloon photography people have done over the years. This type of photography requires one to build a payload, attach a camera, build a timing or altitude mechanism, and even file a flight plan with the FAA for a high-altitude weather balloon. The pictures people have been able to produce with such systems are fantastic, but it seemed to be a little too much work for me, and what happens if you loose track of the balloon?

I figured I would try something somewhat different. I decided to attach a wireless 802.11B network camera to a kite instead, and take pictures from the camera live, using a Yagi Antenna, so I could see the world from the kite's perspective (about 160 feet up) in real time.

Bill of materials:

- " One Axis 206 Wireless Network Camera (get one here)
- " One 9V battery
- " One Yagi Antenna for 802.11B wireless networks
- " A laptop or PC with a wireless card (so you can connect the Yagi)
- " Some electrical tape or duct tape
- " One BIG kite, at least big enough to lift your camera package
- " A Windy afternoon

Getting Started:

1. Start by cutting the power plug that powers the camera off of the AC/DC converter
2. Next, strip the wires that run to the cable, and attach them firmly to a 9V battery
3. Tape the battery to the camera. Here's how it might look:



4. Next, attach the camera to the bottom of the kite
5. Ready your Yagi antenna, and power up the camera



6. Finally, Fire up your laptop, connect via web browser to the wireless camera, and Let 'er Rip!



String it up...

As your camera flies, you'll notice that it may need some stabilization due to winds at the higher altitude. You might add a weight to the bottom of the camera, just to make it more difficult for the wind to knock around, but feel free to experiment with other ideas!

Here are some pictures from my test flights:





I'm not 100% sure, but this might be the world's first 802.11 based KiteCam.