

AirRobot AR-100 Communications Systems Description

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The communications systems of the AR-100 consist of two primary subsystems, the command link and the data download link. The command link is used to transmit commands from the control station to the vehicle and then receive the vehicle's replay. For the command link the control station uses a 2W transmitter and operates at 226.375MHz, consistent with state and federal emergency response functions. The data download link on the other hand is used to receive the video from the vehicle's payload and is an analog video transmission system operating in the unlicensed 2.4GHz band with a 1W transmitter. Figure 1 below shows the two antennas attached to the ground station. The antenna on the left with the green markings is the data download antenna, and the antenna on the right with the red markings is the command link antenna.



Figure 1: The AirRobot control station