

# Wii/protocols/wiimote bus

## From Wiire

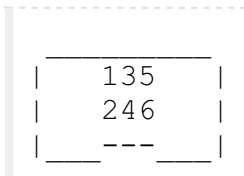
< [Wii](#)

## Wiimote Accessory Bus

The Wiimote accessory bus is a 6 pin data connection that can connect various attachments (the [Nunchuk](#), or the [Classic Controller](#)) to the Wiimote and use it to relay control data back to the Wii console. Although there are 6 pins, so far it appears one is completely unused, and one is included but it's use has not yet been determined.

## Wiimote Bus Pins (6-pin proprietary connector on Wiimote)

Looking into Wiimote:



- 1 (Red wire) - +3V
- 2 (Yellow wire) - Clk
- 3 (Red wire) - Attachment detection?
- 4 (No wire) - Unknown (unconnected at Nunchuk connector)
- 5 (Green wire) - Data
- 6 (White wire) - GND

## Wiimote Bus Pins (linear connector on Nunchuk PCB)



- 1 (Red wire) - +3V
- 2 (no wire) - N/C
- 3 (Yellow wire) - Clk
- 4 (Green wire) - Data
- 5 (White wire) - GND
- 6 (Black wire) - Shield (GND)

## Wiimote Bus Protocol

The Wiimote bus uses a command/response architecture using a single serial connection. It appears that the Wiimote always drives the Clk signal, and the Wiimote and attachment share the control of the data line. The only observed speed for the wiimote bus so far has been 250KHz. The commands and responses are of nonstandard bit length (not multiples of 8bit, 9bit, or anything else that would make sense), and have been a bit hard to track (using an oscilloscope and the older sniffer code I have), so I'm delaying further documentation until I've written a new FPGA bus sniffer which gives me more details about the signal than the one I'm using right now.

more to come soon!