

The software within the CMUcam2 Rev A processor and the Windows GUI has been provided by groups outside of Innovation First, Inc. Therefore Innovation First can not support them. This document is being provided as a courtesy to aid users in basic testing and familiarization with the CMUcam2RevA hardware product produced by Innovation First, Inc.

1. Use a computer with enough horsepower. I have had reports from the field that machines with Windows 98 are too slow. I personally have only used it with Windows XP on a 730 MHz Pentium III and a 2.66 GHz P4.

2. Testing with Hyperterminal

Start simple by connecting to the camera using a PC.

- a. Make sure any Java GUI programs are closed.
- b. Make sure a jumper is installed across J13 (near U4) of the CMUcam2RevA. This should be the only jumper.
- c. Make sure the camera module is installed on the camera assembly. U5 and U1 of the main board will be covered up if the orientation is correct.
- d. Connect the computer to the CMUcam2RevA via a DB9 serial cable.
- e. Attach a pwm cable from your RC to J2 of the camera assembly, justifying the black wire with the "B" near "J2" on the CMUcam2RevA and near "Black" on the RC. This will provide the CMUcam2RevA power.
- f. Make sure you have a charged 7.2v battery attached to the BACKUP battery input of the RC, as well as a 12v battery connected to the MAIN input of the RC.
- g. Turn on the SW1 power switch of the CMUcam2RevA (move the slide toward the camera module). You should see DS1 (green) and DS3 (red) turn on. DS2 will blink on (green), then turn off.
- h. Open up Hyperterminal (start \ All Programs \ Accessories \ Communications \ Hyperterminal).
- i. In Hyperterminal,
 1. Give the connection a name, if prompted.
 2. Select the com (serial) port you are using.
 3. Select a baud rate of 115200.
 4. Data bits: 8, Parity: None, Stop bits: 1, Flow Control: None.
 5. Hit OK
 6. Under Hyperterminal's File \ Properties \ Settings \ ASCII Setup... select the "Send line ends with line feeds", "Echo typed characters locally", "Append line feeds to incoming line ends", and "Wrap lines that exceed terminal width" boxes.
 7. The "Force incoming data to 7-bit ASCII" box should NOT be checked.
 8. Hit OK twice.
 9. If you can't get to the baud rate, click on the telephone symbol that will "disconnect", then do file/properties/configure,... to change baud rate and other items as listed above.
 10. Hit <enter> on the keyboard a couple of times. You should get an "ACK" response.
 11. Try some commands, such as RS <enter>, which will cause "CMUcam Version 2 type 7 ready." to be printed displayed.
 12. Another command is Get Button. Type in GB <enter>. You should get a "0". Push/release the pushbutton PB1. Type in GB <enter> again. You should get a "1". Type in GB <enter> again, you'll get a "0".
 13. Servo outputs have been deleted from the CMUcam2RevA since the processor had to be changed from the SX52 to the SX48.
 14. Note: The Pan reverse and Tilt reverse jumper inputs are irrelevant since the CMUcam2RevA no longer has servo outputs.
 15. Close Hyperterminal.