Colony - Bug #790

XBee/Wireless Initialization

10/19/2009 09:38 PM - John Sexton

Status:	Assigned	**Start date:**	10/19/2009
Priority:	Normal	**Due date:**	
Assignee:	Brad Neuman	**% Done:**	0%
Category:	Wireless	**Estimated time:**	0.00 hour
Target version:			

Description

XBee and Wireless Init functions seem to conflict. dragonfly_init() appears to call xbee_init() [found in serial.c in libdragonfly], while wl_init() appears to call xbee_lib_init() [found in xbee.c in libwireless]. The two functions appear to be arguing over what to assign a few registers.

We found that to get the XBees to work, xbee_init() needs to be called again after drangonfly_init(), but before wl_basic_init_default() [which basically just calls wl_init()].

We also are not confident that calls to wl_set_channel() are working correctly, or if the channel is getting re-initialized by calls to xbee_init()/xbee_lib_init().

Related issues:

Blocks Colony - Enhancement #798: get all the library inti's and functions to...	**Assigned**	**10/21/2009**

History

#1 - 10/22/2009 01:49 AM - David Schultz

xbee_init() turns on the transmitter and receiver on the xbee and resets the baud rate.
xbee_lib_init() cycles the xbee to API mode to communicate with the wireless library and enables the interrupt that gets data from the xbee. They are not arguing as far as I am aware of, since there's only one register overlap and they are just turning on different bits in the register. I don't think the order of these two calls matters, but they both need to be called before doing higher level wireless functions in wl_init or wl_basic_init_default(). I'm not sure what the problem is with dragonfly_init, but maybe reordering the call to the end of dragonfly_init would work.

The channel is not set by any of the init functions, but left at the default value of 0x0C. The set_channel() call looks right, though I haven't tested it.

#2 - 11/05/2009 02:35 PM - David Schultz

- Category set to Wireless

#3 - 10/02/2010 07:16 PM - Alex Zirbel

- Priority changed from High to Normal