* It seems that collecting housekeeping worked just fine.
* However now when I try to do a TM transaction, it keeps failing out.
* In particular, the OBC doesn’t ever receive “Start\_tm\_transfer”
* \*\*Some of the TC/TM transaction functions weren’t confined to an if SELF\_ID == X statement.
* Fixing this and then observing the results.
* Odd numbers of (i) seem to be getting missed during hk\_update somehow.
* Need to investigate.
* The housekeeping parameters which fail start at 85 which are payload parameters.
* I messed up the definition in my code a little bit.
* I also had a random >> 8 which was causing the parameter name to be cleared.
* I think I’m missing the housekeeping which was supposed to come in from COMS.
* Looks like I didn’t get any of the housekeeping from EPS either.
* I may need to increase the delay before the EPS SSM starts sending CAN messages to the OBC.
* Still not getting anything
* Tried removing some stuff from the normal EPS operations
* Still nothing from EPS
* Tried removing the payload SSM
* Still not getting housekeeping from EPS.

**Q:** Am I getting CAN messages from EPS at all?

**A:** No…

**Q:** Is the EPS SSM receiving my CAN messages?

(I’m trying to program a different micro as the EPS SSM to test this hypothesis)

**A:**

CAN isn’t working at all right now, actually…. Investigating.

\*\*\* ALL SSMs need to be plugged in for it to work (at the moment)

\*It appears that only the one SSM is able to send CAN messages to the OBC consistently.

Switching the power so that they both have the same VCC and GND didn’t change anything.

* Somehow I managed to get CANH & CANL backwards on the EPS board.
* In the future, note that one the IT3 board the positions of those two are reversed when looking at the IT4 model.

**Q:** Do TC/TM transactions still work?

Something that I’m sending to the SSM now seems to be locking it up.

I didn’t have a delay in between my requests for housekeeping which probably wasn’t good.

**Q:** What the hell is locking up the SSM code?

**A:** No clue, don’t care.

**Go back to basics? Ya mang.**

* I reverted back to a previous version of my code and now TC/TM transactions work just fine.
* Need to add the necessary changes back in.
* Let’s make sure everything still works!
* **Adding in the new changes caused something in the TM transaction to break.**
* **Let’s find what it was.**
* FIX: Always respond to a TM\_PACKET\_READY message.
* **Finally, I’m transmitting housekeeping telemetry packets.**
* Now, I need to figure out what was happening to the missing CAN messages for housekeeping.
* This might have been due to the CANH-CANL resistance dropping with 4 computers communicating together.
* The OPR keeps hogging the processor, need to drop it’s priority to be equal with housekeeping but make sure that housekeeping delays for a long time.
* I’m still not getting any housekeeping from payload.
* There might be something wrong with that SSM board.
* Yay, that was it.
* The only SSM that I’m not consistently getting housekeeping from is COMS.

**Okay, so the current problem is that the OPR is hogging the processor and the housekeeping task is only being run once (in the time that I care to wait).**

* Currently the priority of the OPR is IDLE + 1, HK is also IDLE + 1.
* Delay for OPR is 10 ticks.
* Delay for housekeeping is 1000 ticks.
* **Instead of delaying the housekeep task by 1000 ticks, I’m going to delay it by 10 ticks and keep track of how many ticks have gone by with xTaskGetTickCount( ).**
* This way the hk task shouldn’t get starved and the code should be run approximately as often.
* The housekeeping task is still sort of being ignored.
* I’m going to bump up the priority of the housekeeping task now.
* Let’s try commenting out the OPR.
* For some reason, it doesn’t really like it when the housekeeping task delays itself.
* Let’s try lowering the PRIO of HK back down to 1, upping prio of OPR to 2 and leaving out the delay in HK.
* **Okay, that worked ☺**
* I also adjusted the timeout for the housekeeping loop to be 30s instead of 10.