Test Devlog

# MAINPROGT1

## Important notes

Time between lora.receive and timeout values are:

1. 425ms
2. 400ms

## Software Fixes

1. Software is missing header includes for the functions – Resolved.
2. Interval delay was slowing the program down.
   1. Added define in configuration.h to enable/disable interval control.
3. Deployment state is returning 256 instead of 1.
   1. Sending EEPROM wipe command.
   2. Satellite does not receive the wipe command.
   3. Satellite receives the wipe command after a restart.
   4. After the wipe command it should restart.
4. Board temperature returning 0.06 instead of 0.00
   1. Not implement yet.
5. Transmissions not received by satellite.
   1. Now calls multiple receives in the LORA amateur band.
   2. Fixed.

## Problems/Issues

1. Ground station was not detecting the satellite’s power information packet.
2. Test receiver does not detect the power information packet.
3. Transmitting a packet now repeats itself.
4. Ground station only seems to receive 1 transmission message.
5. Ground station does receive the transmissions but the probability is very low. I suspect something to do with the ISR.
6. Satellite not receiving FOSSASAT-111; transmission.
7. Added multiple receive loops.

## Appendix

### Receive for 5 minutes (sketch\_may04a)

12:34:41.118 -> Started test ground station

12:34:41.118 -> 0

12:34:41.638 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:34:53.538 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:35:07.008 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:37:27.268 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:37:34.273 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:37:41.308 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:37:48.838 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:37:55.319 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:38:09.858 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:38:16.338 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:38:47.918 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:39:01.948 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:39:08.950 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:39:22.979 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:39:54.509 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

12:40:01.519 -> [SX1278] Data: FOSSASAT-19;0.00,0.00,0.00,0.00,0.00,69,256,-0.06;

### Receive timeout length

12:26:48.547 -> Receive...

12:26:48.948 -> Timeout

12:26:48.948 -> Receive...

12:26:49.387 -> Timeout

12:26:49.387 -> Receive...

12:26:49.787 -> Timeout

12:26:49.787 -> Receive...

12:26:49.938 -> Timeout

12:26:49.938 -> Receive...

12:26:50.337 -> Timeout

12:26:50.337 -> Receive...

12:26:50.738 -> Timeout

12:26:50.738 -> Receive...

12:26:51.178 -> Timeout

12:26:51.178 -> Receive...

12:26:51.578 -> Timeout

12:26:51.578 -> Receive...

12:26:51.978 -> Timeout

12:26:51.978 -> Receive...

12:26:52.137 -> Timeout

12:26:52.137 -> Receive...

12:26:52.537 -> Timeout

12:26:52.537 -> Receive...

12:26:52.928 -> Timeout

12:26:52.928 -> Receive...

12:26:53.368 -> Timeout

12:26:53.368 -> Receive...

12:26:53.768 -> Timeout

12:26:53.768 -> Receive...

12:26:54.167 -> Timeout

12:26:54.167 -> Receive...

12:26:54.327 -> Timeout

12:26:54.327 -> Receive...