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| 1.12 | Weekly Status Report for Software Defined Radio | |
|  | October 17, 2018 | Submitted by: James Bell |
|  | Faculty Advisor: Dr. Stapleton | Team Members:  James Bell [PM]  Samuel Hussey  Zachary Schneiderman |
|  | Sponsor: Texas State University |

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| Yellow | Current Project Status |
| We built the amplifier we designed using parts available on campus from the parts carts in RFM 5216 and compared the results to the simulation of the same design. The simulation and the actual build did not match at all and the gain dropped dramatically as the frequency was increased. We are researching the possible causes and new designs for the amplifier to eliminate this problem. | |

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| Activities/Accomplishments this week | |
| Team Member | Description |
| James Bell | I am trying to create a comprehensive flow chart for the signals to better understand the devices functions. I am also attempting to set up a meeting with Dr Stephan to solidify my understanding of analog signal modulations and transmissions. |
| Samuel Hussey | Passed exam for general class license. Finished functional spec. Started in circuit tests on RF amplifier. |
| Zachary Schneiderman | Finished functional spec, experimented on a breadboard with amplifier |

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| Problems Encountered | |
| Severity | Description |
| High | Pre-designed amplifiers do not have the frequency response we desire. The 80m and 40m bandpass filters do not have the roll-off characteristics we desire, so a redesign for all those components is necessary. |
| Med | We are unsure which type of inductor to get/build for our project as we have received multiple differing opinions on it, we are doing extra research in to it now. |
| Low | LTSpice testing shows that amplifier maintains gain with increase in frequency but in circuit tests show that in drops significantly. |

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| Activities planned for next week | |
| Team Member | Description |
| James Bell | Finalizing the functional schematic and preparing our presentation for the initial design review. |
| Samuel Hussey | Finish all LTSpice testing, redesign bandpass filters and amplifiers, prep for IDR. |
| Zachary Schneiderman | Update parts list, and prepare/practice for design review |

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| Upcoming Course Deliverables (next 2 to 3 weeks) | | |
| Deliverable | Due Date | Status |
| Functional Specifications | 10/15/18 | Complete |
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| Sponsor and Faculty Advisor Meetings Held/Planned | | |
| Who | Date | Topic(s) |
| Dr. Aslan | Wednesdays, 8:20am | Weekly Meeting and discussion on project. |
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