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| 1.12 | Weekly Status Report for Software Defined Radio | |
|  | November 7, 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 updating paperwork and compiling the binder for senior design day. |
| Samuel Hussey | Continued troubleshooting rf amp, updated functional spec and diagrams. |
| Zachary Schneiderman | Helped troubleshoot RF amp |

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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 | Need thinner wire for wrapping inductors, cant get 38 turns with 22 gauge wire |
| Low | . |

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| Activities planned for next week | |
| Team Member | Description |
| James Bell | I am updating paperwork and compiling the binder for senior design day and studying digital signal processing. For when parts come in. |
| Samuel Hussey | Finish rf amp, assemble and test bandpass and lowpass filters. |
| Zachary Schneiderman | Wrap inductors, ready components for bandpass filters |

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| Upcoming Course Deliverables (next 2 to 3 weeks) | | |
| Deliverable | Due Date | Status |
| Labor cost schedule | 11/18/18 | In progress |
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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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| 1.12 Software Defined Radio Open Action Items | | | |  |  |
| 11/7/2018 | Last Update |  |  |  |  |
| **Date** | **Description** | **DRI** | **Due By** | **#D** | **Notes / Comments** |
| 10/24/2018 | Updating simulations of analog components with most recent information from research | Samual Hussey | 11/1/2018 | - | Completed - Bandpass filters and RF amplifer. |
| 10/24/2018 | Labor Cost Schedule | James Bell | 11/18/2018 | 11 | This is a class deliverable, more details on weekly schedule |
| 10/10/2018 | Understand the fundamentals of digital signal processing within the bounds of our design and project. | James Bell | 11/22/2018 | 15 | My goal is to be able to completely understand the data flow and processing for the desgin. This will take longer then first thought |



