1.12 Weekly Status Report for Software Defined Radio

November 14, 2018	Submitted by: James Bell

Faculty Advisor: Dr. Stapleton

Sponsor: Texas State University

Team Members:
James Bell [PM]
Samuel Hussey
Zachary Schneiderman

`Green` Current Project Status

We have fixed Radio frequency amplifier and we are flying through the initial testing and assembly of our device.

Activities/Accomplishments this week

Team Member	Description
James Bell	I am updating paperwork and compiling the binder for senior design day as well as helping label and compile the parts and sub-assemblies.
Samuel Hussey	Soldered and tested low pass filters, tested relay circuits for switching between bandpass filters.
Zachary Schneiderman	Soldered the RF Amplifier and tested it, working. Began soldering the quadrature generator

Problems Encountered

Severity	Description
High	
Med	Need thinner wire for wrapping inductors, can't get 38 turns with 22-gauge wire so we can not make the band pass filters yet.
Low	.

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 so that when all parts are operating and assembled, I can start programming the Teensy.
Samuel Hussey	Assemble and test bandpass filters, implement relay circuit.
Zachary Schneiderman	Finish Quadrature generator and test it, try interfacing with clock generator

Upcoming Course Deliverables (next 2 to 3 weeks)

Deliverable	Due Date	Status
Labor cost schedule	11/18/18	In progress

Sponsor and Faculty Advisor Meetings Held/Planned

Who	Date	Topic(s)
Dr. Aslan	Wednesdays, 8:20am	Weekly Meeting and discussion on project.

1.12 Software Defined Radio Open Action Items

11/14/2018 Last Update

Date	Description	DRI	Due By	#D	Notes / Comments
10/24/2018	Labor Cost Schedule	Samual Hussey	11/18/2018	4	This is a class deliverable, more details on weekly schedule
10/24/2018	Labor Cost Schedule	James Bell	11/18/2018	4	This is a class deliverable, more details on weekly schedule
10/24/2018	Labor Cost Schedule	Zachary Schneiderman	11/18/2018	4	This is a class deliverable, more details on weekly schedule
11/14/2018	Asemble components in to system	James Bell	12/5/2018	21	Everyone on the team is working on this, as many parts of this huge task can run in parallel
10/10/2018	Understand the fundamentals of digital signal processing within the bounds of our design and project.	James Bell	11/22/2018	8	My goal is to be able to completely understand the data flow and processing for the desgin. This will take longer then first thought

1.12 Software Defined Radio Milestone Schedule

11/14/2018	Last Update				
23	calendar days until Senior Design Day				

DRI	Task	Dur	Start	End	Status
Samuel Hussey	Statement Of Work (Executive Summary)	24	8/31/2018	9/24/2018	Finished
Zachary Schneiderman	Statement Of Work (Buisness Need)	24	8/31/2018	9/24/2018	Finished
James Bell	Statement Of Work (Product Scope Description)	24	8/31/2018	9/24/2018	Finished
Zachary Schneiderman	Statement Of Work (Project Scope Description)	24	8/31/2018	9/24/2018	Finished
Samuel Hussey	Statement Of Work (Sponser Support Elements)	24	8/31/2018	9/24/2018	Finished
James Bell	Statement Of Work (Aprovals Signature)	24	8/31/2018	9/24/2018	Finished
James Bell	Watch and take notes on Videos of SDR	14	8/31/2018	9/14/2018	Finished
Zachary Schneiderman	Watch and take notes on Videos of SDR	14	8/31/2018	9/14/2018	Finished
Samuel Hussey	Watch and take notes on Videos of SDR	14	8/31/2018	9/14/2018	Finished
Zachary Schneiderman	List of components in Prototype priced and deliver estimates	40	9/12/2018	10/22/2018	Finished
Samuel Hussey	Data/Signal Flow chart	40	9/12/2018	10/22/2018	Finished
Samuel Hussey	Schematics for Prototype in multi-sim or other such software	40	9/12/2018	10/22/2018	Finished
James Bell	Organizing, and commenting pre-existing code for Prototype	33	9/12/2018	10/15/2018	Finished
James Bell	Functional Spec section 1.1 (Summary)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 1.2 (Sponser Requirments)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 1.3 (Existing System)	14	10/1/2018	10/15/2018	Finished
Zachary Schneiderman	Functional Spec section 1.4 (Terminology)	14	10/1/2018	10/15/2018	Finished
Zachary Schneiderman	Functional Spec section 2.1 (User Attributes and Use Cases)	14	10/1/2018	10/15/2018	Finished
Samuel Hussey	Functional Spec section 2.2 (Administration Functions)	14	10/1/2018	10/15/2018	Finished
Samuel Hussey	Functional Spec section 2.3 (Error Handling)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 2.4 (Saftey and Security)	14	10/1/2018	10/15/2018	Finished
Zachary Schneiderman	Functional Spec section 2.5 (Help and User Documentation)	14	10/1/2018	10/15/2018	Finished
Zachary Schneiderman	Functional Spec section 2.6.1 (User)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 2.6.2 (Software)	14	10/1/2018	10/15/2018	Finished
Samuel Hussey	Functional Spec section 2.6.3 (Hardware)	14	10/1/2018	10/15/2018	Finished
Samuel Hussey	Functional Spec section 2.6.4 (Mechanical)	14	10/1/2018	10/15/2018	Finished
Zachary Schneiderman	Functional Spec section 2.7 (Boundary Conditions and Constraints)	14	10/1/2018	10/15/2018	Finished
James Bell (Team)	Functional Spec section 2.8 (Performance)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 2.9 (Software Platforms)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 2.10 (Service, Support, & Maintence)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 2.11 (Expandability or Customization)	14	10/1/2018	10/15/2018	Finished
Samuel Hussey	Functional Spec section 3 (Project Alignment Matrix)	14	10/1/2018	10/15/2018	Finished
James Bell (Team)	Functional Spec section 4 (References)	14	10/1/2018	10/15/2018	Finished
James Bell	Functional Spec section 5 (Approvals)	14	10/1/2018	10/15/2018	Finished
Samuel Hussey	RF Amplifier Simulation v0.1	5	10/10/2018	10/15/2018	Finished
James Bell	IDR Power Point	12	10/10/2018	10/22/2018	Finished
Zachary Schneiderman	RF Amplifier Biuld/ research, (redesign?)		10/10/2018	10/15/2018	Finished
Samuel Hussey	Speaker Amplifier	5	10/10/2018	10/15/2018	Finished
Samuel Hussey	Bandpass Filter Simulation	5	10/10/2018	10/15/2018	Finished

James Bell	Labor Cost Schedule Section 1	15	11/4/2018	11/19/2018	In progress
James Bell	Labor Cost Schedule Section 2	15	11/4/2018	11/19/2018	In progress
Zachary Schneiderman	Labor Cost Schedule Section 3	15	11/4/2018	11/19/2018	In progress
Samuel Hussey	Labor Cost Schedule Section 4	15	11/4/2018	11/19/2018	In progress
Zachary Schneiderman	Labor Cost Schedule Section 5	15	11/4/2018	11/19/2018	In progress
James Bell	Labor Cost Schedule Section 6	15	11/4/2018	11/19/2018	In progress
James Bell	Prep and do initial design review	14	10/15/2018	10/29/2018	Finished
James Bell	Order Parts	4	10/24/2018	10/28/2018	Finished
Samuel Hussey	All Siumulations Completed for analog components we are constructing	8	10/24/2018	11/1/2018	Finished
Zachary Schneiderman	Bandpass Filter and Radio Frequeny Amplifier built	14	10/24/2018	11/7/2018	Overdue
James Bell	Compile Senior design day notebook	30	11/7/2018	12/7/2018	In progress
Zachary Schneiderman	Poster Draft	21	11/5/2018	11/26/2018	In progress
	Test/Benchmark Circuits	14	11/5/2018	11/19/2018	Not Started
	Develop Passthrough Tests	14	11/5/2018	11/19/2018	Not Started
	Create Quadrature Converter	21	11/5/2018	11/26/2018	Not Started
James Bell	Test Plan	11	11/19/2018	11/30/2018	Not Started
	Configure LCD/Tuner Knob	13	11/19/2018	12/2/2018	Not Started
	Implement RF Receive Code	7	11/19/2018	11/26/2018	Not Started
	Thanksgiving Break	4	11/21/2018	11/25/2018	Not Started
	Receive/Tune tests	9	11/26/2018	12/5/2018	Not Started
	Receive/Tune tests	9	11/26/2018	12/5/2018	Not Started
	Print Poster, Finalize Display	16	11/12/2018	11/28/2018	Not Started
	Transmitting/Tune tests	9	11/26/2018	12/5/2018	Not Started
	Senior Design Day	0	12/7/2018	12/7/2018	Not Started
	Add licensing selection to radio	28	1/22/2019	2/19/2019	Not Started
	Raspberry Pi implementation	41	1/22/2019	3/4/2019	Not Started
	Custom PCB	41	1/22/2019	3/4/2019	Not Started
	Higher Power Amplifier	21	2/19/2019	3/12/2019	Not Started
	Alternate Power Sources	21	2/19/2019	3/12/2019	Not Started
	Custom Cases	28	3/12/2019	4/9/2019	Not Started
	Head phone output jack	27	4/9/2019	5/6/2019	Not Started
	Finalize Poster	0			Not Started
	Print Poster, Finalize Display	0			Not Started
	Senior Design Day				Not Started