

1.12 Weekly Status Report for Software Defined Radio

September 19, 2018

Submitted by: James Bell

Faculty Advisor: Dr. Stapleton

Team Members:

James Bell [PM]

Sponsor: Texas State University

Samuel Hussey

Zachary Schneiderman

Green Current Project Status

We have compiled the statement of work and will be getting it signed and finalized then the next set of necessary actions as of Wednesday 9/24/2018.

Activities/Accomplishments this week

Team Member	Description
James Bell	Filled out project manager forms, documentation, started research in to the Arduino testing environment and possible methods of testing the code provided with an actual micro controller.
Samuel Hussey	Began piecing together block diagrams to start working schematic in LTSpice. Started building/finding components on LTSpice that are not originally included (mixers and antenna specifically).
Zachary Schneiderman	Took notes and did research on unknowns from Charlie Morris's SDR project, particularly Class B Amplifier design and quadrature audio signals

Problems Encountered

Severity	Description
High	Not sure how to model/replace Teensy or audio board in LTSpice in order to finish working model.
Med	.
Low	How to use Piazza to upload and maintain documentation for the project.

Activities planned for next week

Team Member	Description
James Bell	Submit final signed version of the statement of work, then work out the Arduino environment for code implementation and testing.
Samuel Hussey	Continue work on schematic by finishing finding/building any components necessary and then implementing them into the schematic.

Zachary Schneiderman

Start on first draft for parts list, need to do more research quadrature on refresh my self on DSP filters and transforms

Upcoming Course Deliverables (next 2 to 3 weeks)

Deliverable	Due Date	Status
SOW	9/24/2018	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

9/19/2018 Last Update

Date	Description	DRI	Due By	#D	Notes / Comments
9/12/2018	Organizing, and commenting pre-existing code for Prototype	James Bell	10/18/2018	35	Currently working on getting the environment working for testing purposes
9/12/2018	Schematics for Prototype in multi-sim or other such software	Samuel Hussey	10/18/2018	35	
9/12/2018	List of components in Prototype priced and deliver estimates	Zachary Schneiderman	10/18/2018	35	
8/31/2018	Watch and take notes of videos for SDR Prototype	James Bell	9/14/2018	1	CLOSED: Done on 9/14/2018.
8/31/2018	Watch and take notes of videos for SDR Prototype	Samual Hussy	9/14/2018	1	CLOSED: Done on 9/14/2018.
8/31/2018	Watch and take notes of videos for SDR Prototype	Zachary Schneiderman	9/14/2018	1	CLOSED: Done on 9/14/2018.

# items	Team Member
1	James Bell
1	Samual Hussy
1	Zachary Schneiderman

1.12 Software Defined Radio Milestone Schedule

9/19/2018 Last Update					
79 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	In progress
Zachary Schneiderman	Statement Of Work (Buisness Need)	24	8/31/2018	9/24/2018	In progress
James Bell	Statement Of Work (Product Scope Description)	24	8/31/2018	9/24/2018	In progress
Zachary Schneiderman	Statement Of Work (Project Scope Description)	24	8/31/2018	9/24/2018	In progress
Samuel Hussey	Statement Of Work (Sponser Support Elements)	24	8/31/2018	9/24/2018	In progress
James Bell	Statement Of Work (Aprovals Signature)	24	8/31/2018	9/24/2018	In progress
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 del	36	9/12/2018	10/18/2018	In progress
Samuel Hussey	Schematics for Prototype in multi-sim or other	36	9/12/2018	10/18/2018	In progress
James Bell	Organizing, and commenting pre-existing code	36	9/12/2018	10/18/2018	In progress
James	Signed Spec Sheet	26	10/10/2018	11/5/2018	Not Started
	Begin RF Amplifier	26	10/10/2018	11/5/2018	Not Started
	Begin Power Amp	26	10/10/2018	11/5/2018	Not Started
	Begin Bandpass Filter	26	10/10/2018	11/5/2018	Not Started
James	Labor Cost Schedule	14	11/5/2018	11/19/2018	Not Started
James	Poster Draft	21	11/5/2018	11/26/2018	Not Started
	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	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
	Final Preparations for Senior design day	2	12/5/2018	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