FAMU-FSU College of Engineering

Department of Electrical and Computer Engineering

# Code of Conduct

Team ECE#7

SAR Imager

Members:

Olivier Cedric Barbier (ECE) id: oliver.barbier (FAMU)

Jordan Bolduc (ECE) id: jpb12c

Scott Nicewonger (ECE) id: swn10

Julian Rodriguez (ME) id: jar12g

Kegan Stack (ME) id: kts11d

Date:

September 14 2015

## **Mission Statement**

The purpose of the design project, SAR Imager, is to deliver a design that best fits the needs of our sponsor, Northrop-Grumman. In order to do so, each member of the team will contribute his/her ideas, and as a team, we will pick the ideas that will best work for the project in a constructive and respectful manner. Each team member will work on the project diligently and put in the effort required to complete each task on time.

## **Group Responsibilities**

Each team member will be assigned a role for the project that best fits the experience and skills that he/she has. Members should help each other whenever one has difficulty completing a task.

1. Scott Nicewonger

*Project Manager & RF Engineer*

It is the role of the Project Manager to ensure that all deadlines are met in a timely fashion and that all milestone objectives are achieved. The Project Manager will be involved with the risk/issue analysis of all design phases; coordinate with each working group of the team; coordinate with faculty, sponsors, and third parties/vendors; ensure resource allocation and availability; and delegate tasks to team members and working groups judiciously and fairly.

The RF Engineer, first and foremost, will ensure that any radio frequency energy emitted by any product, prototype, or device is not harmful to humans as defined by ANSI/IEEE C95.1-1992 guidelines and FCC Rules and Regulations 47 C.F.R. 1.1307(b), 1.1310, 2.1091, 2.1093. Furthermore, the RF Engineer will ensure the product operates within the customer’s RF transmit and receive specifications, as well as carefully considering issues of RF propagation and RF interference.

*Technical Skill: RF Comms Troubleshooting, Field Theory*

1. Olivier Barbier

*Lead Programmer*

The Lead Programmer will be responsible for software code deliverables and will work closely with the Signal Processing Engineer during implementation. The Lead Programmer will delegate programming tasks to team members as appropriate and will be responsible for Quality Assurance of all programming products.

*Technical Skill: Programming & Filters*

1. Jordan Bolduc

*Secretary, Webmaster & Signal Processing Engineer*

It is the role of the Secretary to keep track of the minutes and document the weekly meetings. The webmaster is responsible for ensuring that all needed information and files are available on the team’s website.

The Signal Processing Engineer is responsible for the accuracy and efficacy of the mathematical calculations and models which will be used to resolve received signals into useful data. The Signal Processing Engineer will work closely with the Lead Programmer to ensure signal processing models are implemented into software successfully.

*Technical Skill: Signal Analysis, Field Theory and Soldering*

1. Julian Rodriguez

*Treasurer, Procurement Manager & Co Lead Engineer (Mechanical)*

It is the role of the Treasurer to manage all monies and budgetary concerns for the project to guarantee that the tasks are performed at the lowest cost possible to achieve the highest necessary performance as stated in the objectives of the product requirements.

The procurement manager will be responsible for ensuring that components are purchased in the most efficient and economical manner. They will work closely with both the department and sponsor to ensure time is not wasted waiting on material.

Furthermore, as a mechanical engineer, design and structural analysis will be necessary duties to assure structural integrity and an efficient design of the antenna.

*Technical Skill: CAD, FEA, Design, & Thermal Fluid Analysis*

1. Kegan Stack

*Lead Engineer (Mechanical)*

The Lead mechanical Engineer will provide the Project Manager with the particular specifications and limitations of the Imager as they pertain to design and structure of the Imager and its components.

The mechanical engineer will optimize the design of the antenna configuration and the structure to hold the antenna as well as the electrical components for weight, size and portability. Using both CAD and Professional Engineering Software, mechanical engineers will produce precise models and drawings. Sole responsibility for the material used to produce the structure will fall among the mechanical engineers. They will work in close proximity to the RF Engineer to make sure the system is physically working properly.

*Technical Skill: AutoCAD, FEA and Thermal Fluid Analysis*

## **Communication**

The main form of communication between all team members will be by email messaging and by the weekly meetings that have been scheduled throughout the semester. These weekly meetings have been made around the availability of each team member to ensure attendance. Further, a secondary time slot has been prepared weekly as an alternative in the even that members may need to reschedule. Team members must keep an eye out for text messages as it may contain information on team meetings and any urgent information.

The secondary form of communication will be through text messaging. Files and information transfer will be done through Google Drive and Blackboard. It is important for each team member to check their email accounts periodically throughout the day.

If a team member cannot make it to a meeting, he/she must inform the other team members through text message or email within 24 hours of the scheduled time. Each team member has up to 3 excusable absences from team meetings. If a meeting is to be canceled, the group will be informed through text message and email at least 24 hours in advance, and the rescheduled meeting date, time, and location will be announced as soon as it is determined.

A log book will be kept by each of the team members of various information that is either useful and/or essential to the successful completion of the project. This will help keep track of which person is doing which work.

## **Team Dynamics**

Team members shall work together as a team, and thus will respect each other. Team members are encouraged to voice their ideas and suggestions, and they should not be ridiculed for their ideas. Any comments in regards to those ideas/suggestions should be done in a respectful and constructive manner. If a team member is having problems with the assigned task, he/she should ask other team members for help. If there is any conflict between members, it should be addressed in a timely and professional manner in order to avoid any disruptions in the project. During the weekly meetings, team members will have the opportunity to voice any complaints or suggestions in order to ensure each team member feels comfortable and there are no emotional distractions to hinder performance.

## **Ethics**

Team members shall at all times obey the honor policy of their respected university (FSU or FAMU) and shall at all times obey the honor policy of the FAMU/FSU College of Engineering. All team members will treat others with respect, which includes other team members, faculty, sponsors, advisors, and/or anyone else. If information is to be used that was not created by someone in the team, it **MUST** be properly cited **WITH** given permission from all of the faculty and/or parties involved (including the original owner of the information). Failure to do any of these steps may result in academic action taken against the team member and includes (but not limited to) lowering of course grade, F in the course, academic suspension, and/or academic expulsion from the FAMU/FSU College of Engineering.

## **Weekly and Biweekly Tasks**

Internal team meetings will be held at least once a week on alternating Mondays and Tuesdays at 5:00PM EST in order to discuss the project and tasks. Team members should not be late to meetings. Team members will may be required to meet more than once weekly. Any additional meetings shall be agreed upon by all team members and attendance will be required. If team members grouped for a specific task must meet together in order to complete it, they must agree on a convenient time and day to finish said task in a timely manner.

Team members will also have biweekly meetings with the department coordinator, Dr. Hooker, and weekly meetings, if possible, with the contact from Northrop-Grumman, Pete Stenger, via videoconference or teleconference, as well as with the project advisors, Dr. Foo. During the meeting times, all progress and ideas will be discussed, as well as budget, any conflicts, timelines, and due dates.

## **Decision Making**

All ideas shall be discussed between team members. Any decisions that is to be made shall be done by agreement and by majority of the team members. This means that 3 or more team members should all be in agreement. If at any time, a decision cannot be made, the team leader will make a final decision. Each member has their own unique ability to make decisions. To allow one member to make the first, as a final, decision would be unfair to the other members. With this in mind, each member must be allowed to voice and explain their reasoning behind their decision to communicate their thoughts clearly.

## **Dress Code**

Dress code for internal team meetings is casual. Official advisory meetings in which Dr. Foo or a corporate sponsor is present, or attending by ***video***conference, shall be business casual, unless specified otherwise. Presentations to the Senior Design class, faculty, sponsors, or outside parties will be at least business casual, unless otherwise specified.

## **Conflict Resolution**

If there is any conflict between team members, then team members must communicate respectfully with each other in regards to said conflict. If needed, a majority vote will be held to determine the course of action. If conflict cannot be resolved, then the team leader will step in to determine what can be done. If all fails, the project coordinator and/or advisors will be alerted in order to resolve the conflict.

By signing the code of conduct, the members of Team E#7 of the SAR Imager project agree on all of the points stated above and will abide by the code of conduct. If any changes must be made, team members will agree on the changes and the document shall be signed again.

Name Signature Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_