TRIWAVE SYSTEMS

July 7, 2019

Dr. Craig Scratchley
Dr. Andrew Rawicz
School of Engineering Science
Simon Fraser University
Burnaby, British Columbia
V5A 1S6

RE: ENSC 405W/440 Design Specifications for Arkriveia Beacon

Dear Dr. Scratchley and Dr. Rawicz,

The following document contains the Design Specification for Akriveia Beacon - The Indoor Location Rescue System created by TRIWAVE SYSTEMS. The Akriveia Beacon focuses on locating personnel trapped in buildings during small scale disasters such as fires and low magnitude earthquakes. This is achieved by incorporating an combination of advanced Ultra-wide-band radio modules and microcontrollers to create an dependable indoor positioning system using trilateration. We believe our system allows search and rescue operator to safely and reliably locate victims during an emergency or disaster.

The purpose of this document is to provide low and high-level design specifications regarding the overall system architecture, functionality and implementation of the Akriveia Beacon system. The system will be presented according to the three different development stages (proof-of-concept- prototype, and final product). This document consists of system overview, system design, hardware design, electrical design, software design and as well as a detailed test plans for the Alpha and Beta products.

TRIWAVE SYSTEMS is composed of five dedicated and talented senior engineering students. The members include Keith Leung, Jeffrey Yeung, Scott Checko, Ryne Watterson, and Jerry Liu. Coming from various engineering concentrations with a diverse set of skills and expenices, we believe that our product will truly provide a layer of safety and reliability to search and rescue operations.

Thank you for taking the time to review our requirement specifications document. If there are any further questions or comments, please direct them to our Chief Communications Officer Jeffrey Yeung at zjyeung@sfu.ca

Sincerely,
Jerry Liu
Chief Executive Officer

Enclosed: Design Specification for Arkriveia Beacon