

## **SWAT-C: Squad with Autonomous Teammate Challenge**

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**Abstract:** This document contains the introduction of this capstone research project, Squad with Autonomous Teammate Challenge (SWAT-C), system overview, methodology, stakeholder analysis, technology assessment, field tests, and a conclusion. In modern warfare, Infantry squads need to be able to utilize technology to gain a tactical advantage in a firefight. The purpose of this document and research project is to design and modify unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs) and integrate these systems as well as other technology into an Infantry squad to enable the squad to conduct its mission. This research project is made up of an interdisciplinary design team, which works closely with the Close Combat Team (CCT) acting as the Infantry squad. During the year, the design team tested their systems during competitions against Navy midshipmen and modified the systems based on feedback to best meet CCT's needs as they operated in an urban environment.

*Keywords:* UAV, UGV, autonomous teammate