

Robotics Applications EEL 5661

Military Robotics for Ground Battle Operations Q-GUV

Shaun Pritchard - spritchard2021@fau.com - Fall 2022

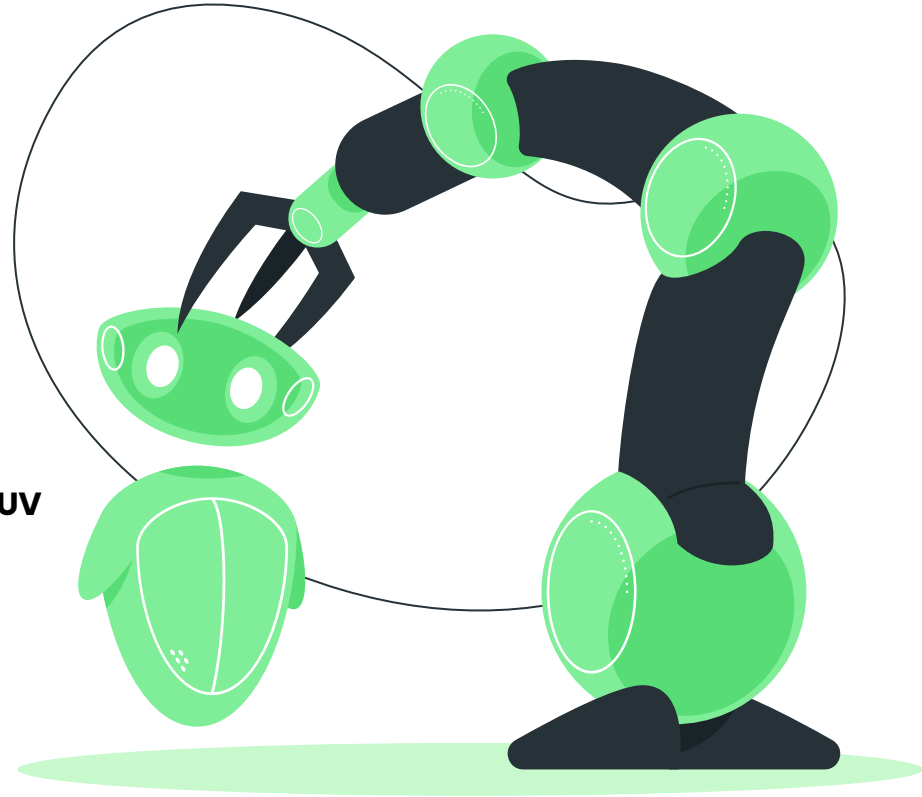


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Robotics Developers

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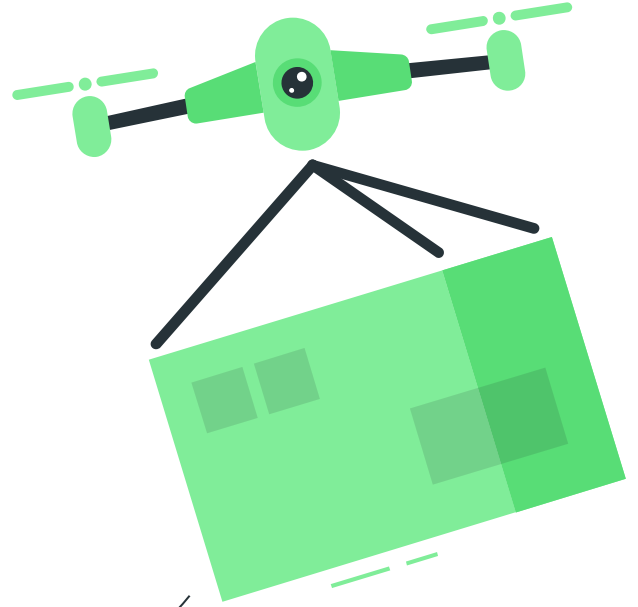
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Q-UGV

Quadrupedal Unmanned Ground Vehicles.

Introduction

Military Robotics Applications for
Ground Battle Operations



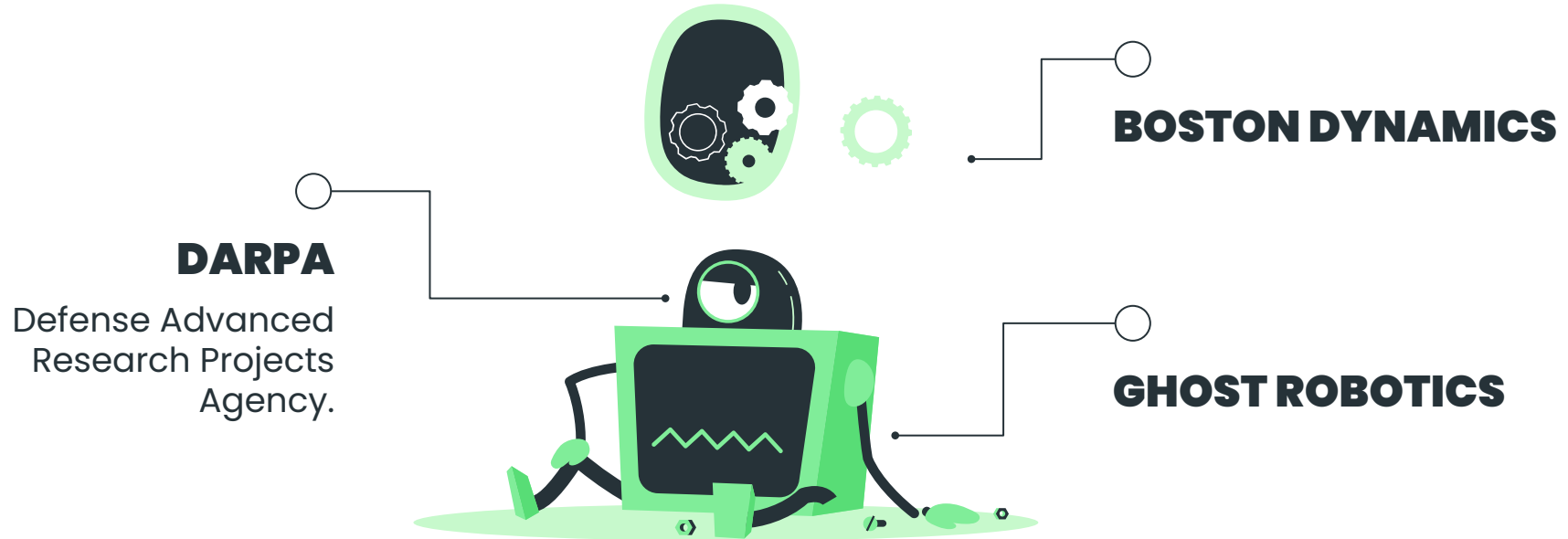
What are Military Ground Applications In Robotics

Multiple Technologies and applications

- Semi-autonomous
- Fully-autonomous

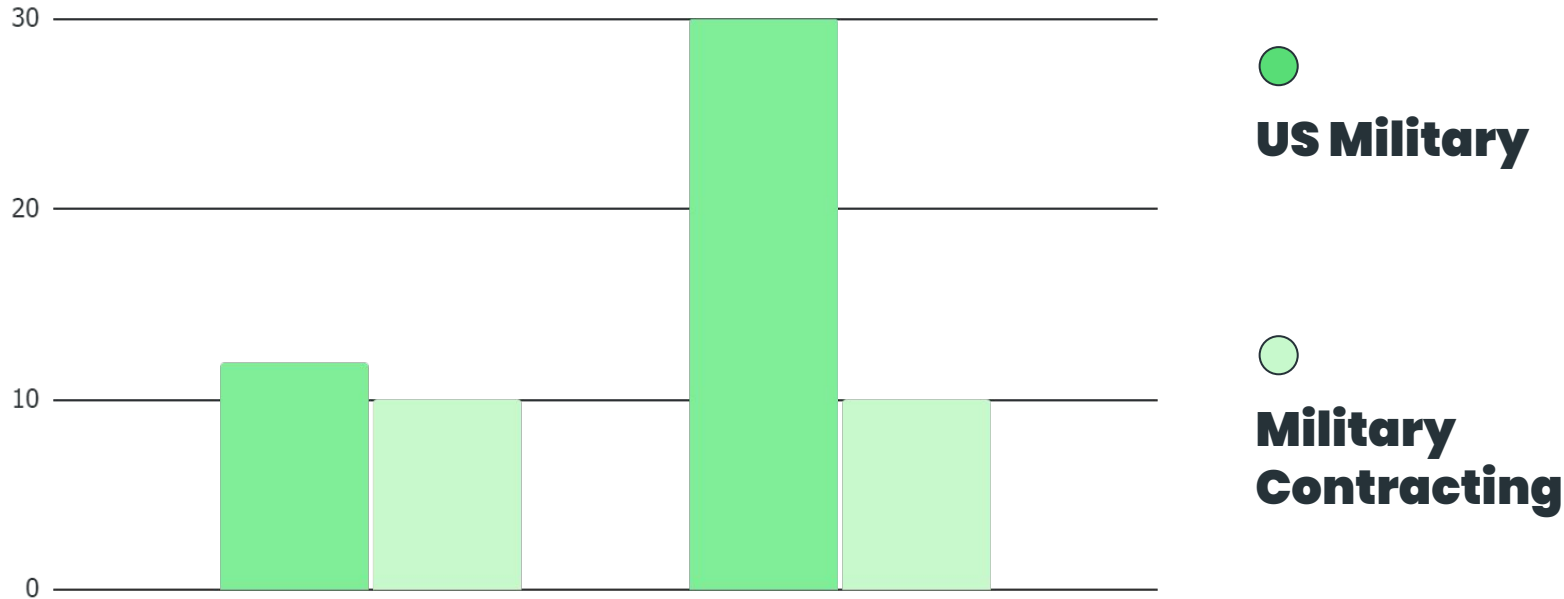
Depending on the application requirements, sensors, detectors, weapons, programmed software, and other payloads can be equipped on robots used in the military

Top Military Robotics Companies



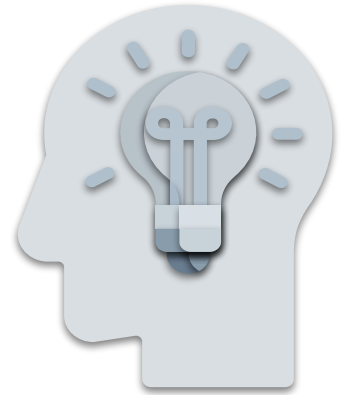
Military Market Share of Robotics

2022 YTD 30 % of US military uses Robotics applications



3-Types of Military Robots

- Unmanned Ground Vehicles (**UGV**) Robots
- Unmanned Aerial Vehicle (**UAV**) Robots
- Unmanned Underwater Vehicle (**UUV**) Robots



Unmanned Ground Vehicles (UGV) Robots

UGV's

- **Military Transportation Robots**
 - **Search And Rescue Military Robots**
 - **Fire Fighting Military Robots**
 - **Mine Clearance Military Robots**
 - **Surveillance And Reconnaissance Military Robot**
 - **Armed Military Robots**
- 

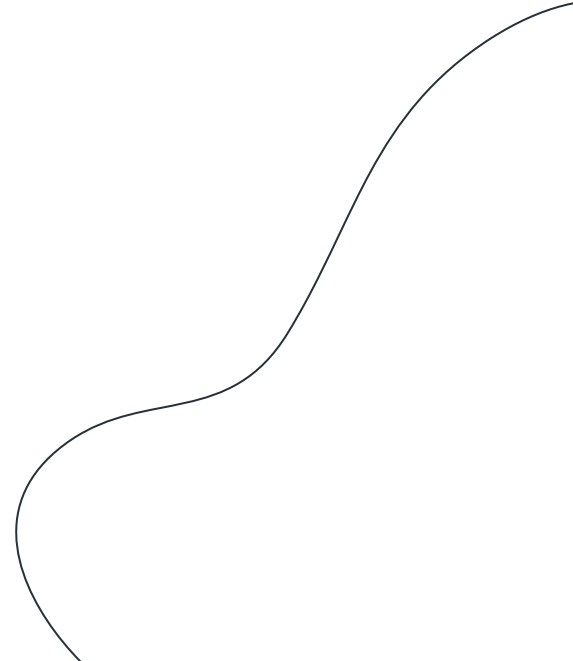


Unmanned Aerial Vehicle (UAV) Robots

UAV's

- Drones

Flying Robots!



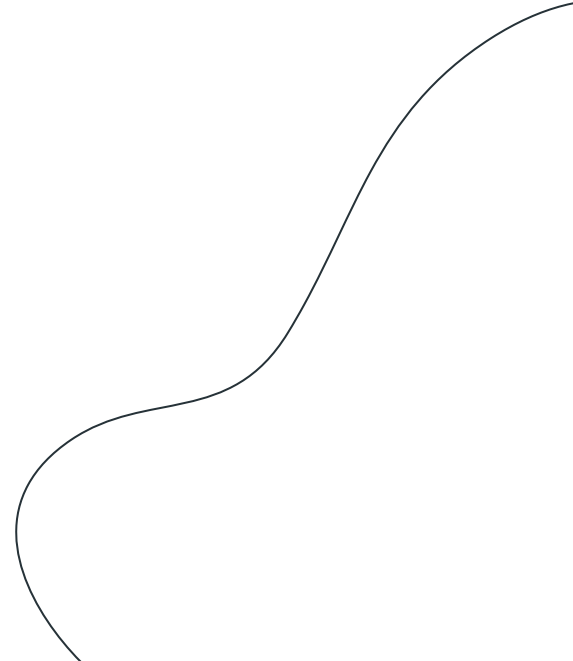


Unmanned Underwater Vehicle (UUV) Robots

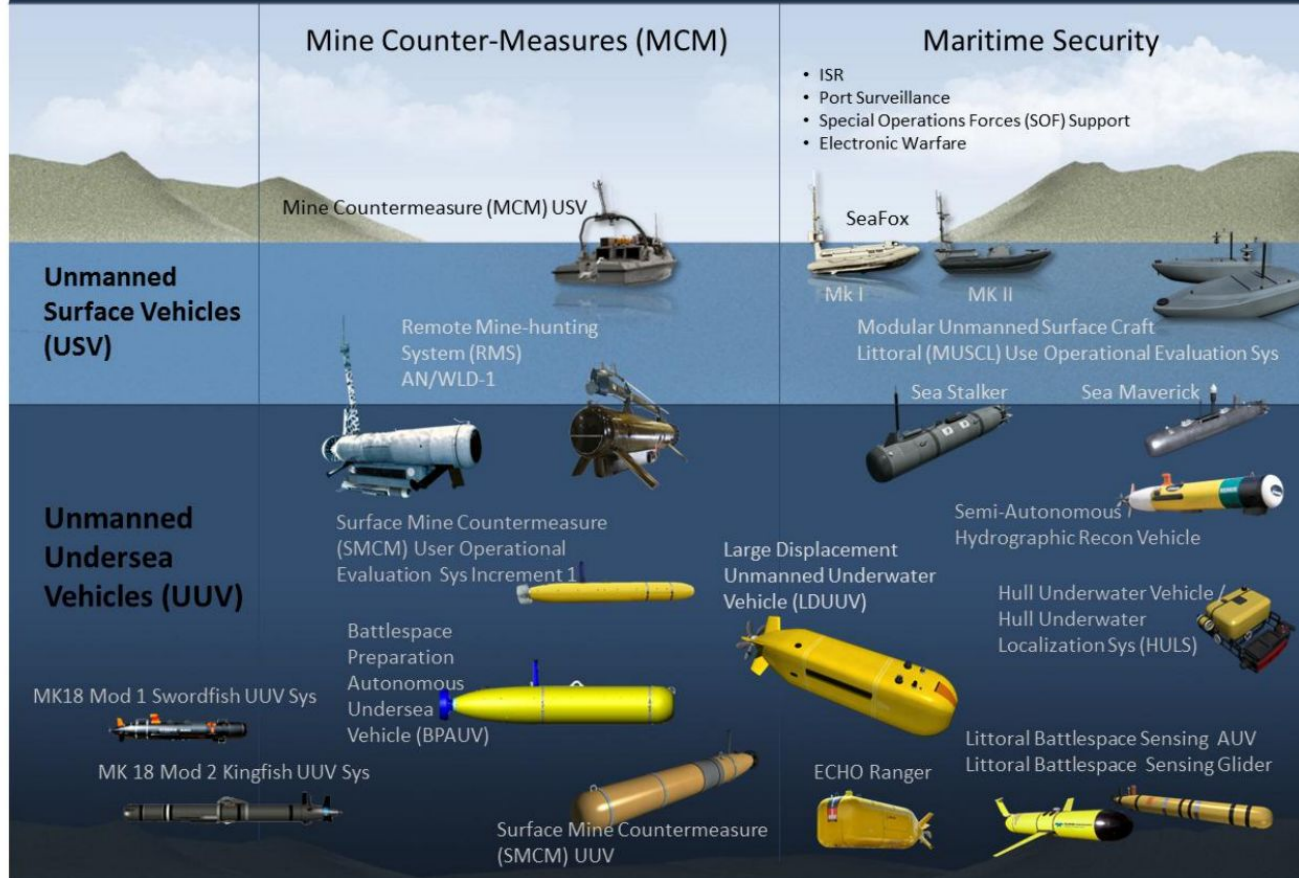
UUV's

- Unmanned Surface Vehicles
- Unmanned Undersea Vehicles

Underwater Robots!



Unmanned Maritime Systems (PB13 and beyond)



Quadrupedal Unmanned Ground Vehicles (Q-UGV)

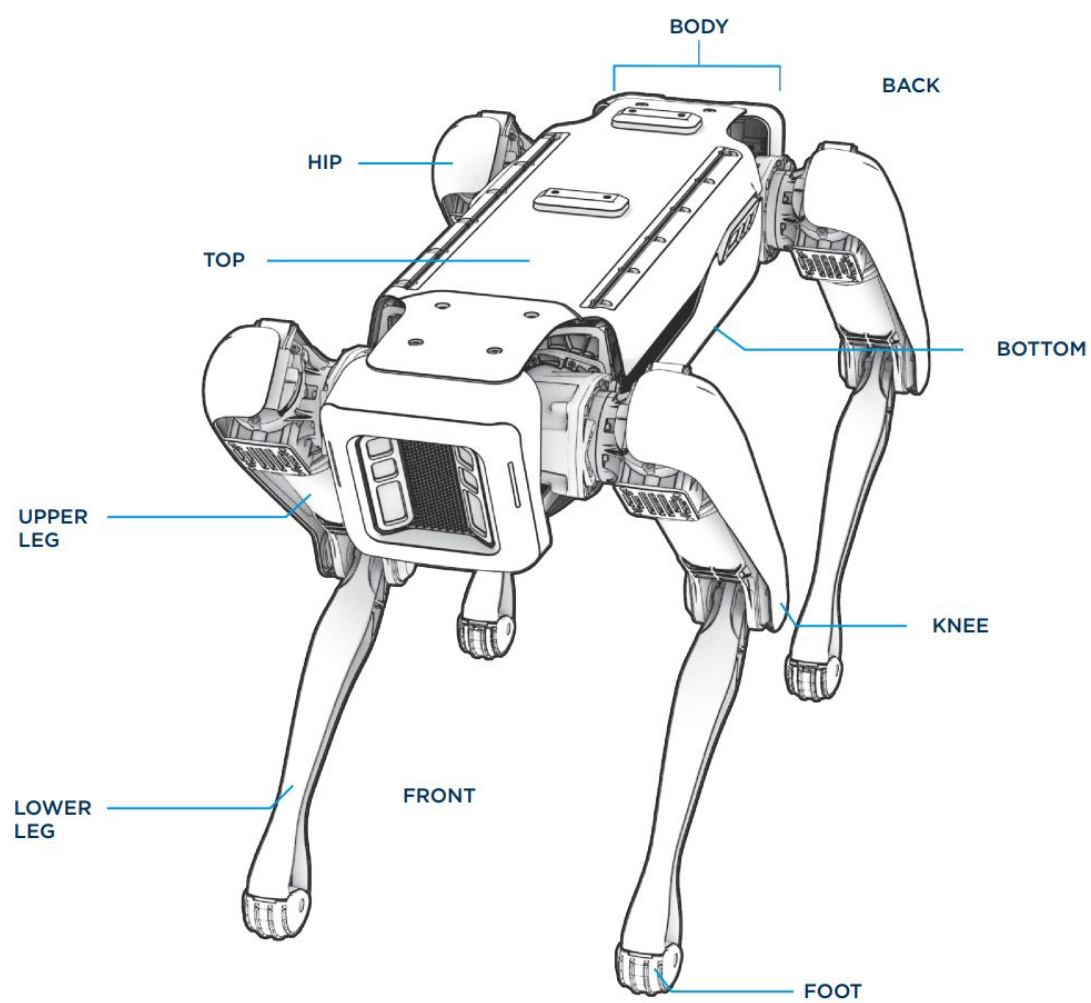
Q-UGV

- Surveillance
- Armed / unarmed Security
- Transport
- Rescue
- Mine Clearance
- Detection
- Military target engagement
- Reconnaissance

Ground Military Robotics Applications of the future!









Thanks!

- Shaun Pritchard
- M.S In Artificial Intelligence
- Florida Atlantic University -
Department of Engineering and
Computer Science
- Email: spritchard2021@fau.edu

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