

Paintball Environment Tactical Engagement Recon System

BCC-4



Objective

Develop a system to enhance situational awareness in the game of paintball. This system will utilize a Heads-Up Display (HUD) connected to various sensors to present useful information to the user. The sensor information will be recorded and processed through a Raspberry Pi.

Relative team member locations will be displayed on a representation of the playing field via the HUD. Locations will be updated at regular intervals. Sensor information will be used to indicate low air pressure and low paint levels for the user.



Paintball marker
with pressure sensor



Recon Snow2 HUD

Approach:

Modify existing HUD to display required information by:

1. Obtaining necessary data from paintball marker.
2. Processing and networking data via Raspberry Pi
3. Developing Android app for HUD
4. Displaying necessary information on app

Key Milestones

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| • HUD GUI code complete | 1/16 |
| • Server storage code complete | 1/16 |
| • Hardware mount for hopper (prototype) complete | 1/16 |
| • Paintball level detection filtering methods complete | 1/18 |
| • Server data intake code complete | 2/16 |
| • Data processing code complete | 2/16 |
| • Wireless data transfer from sensor array to server complete | 2/16 |