TECHNICAL OVERVIEW

GOALS

- Complete concept design
- Build functional prototype
- Thoroughly document all work

GOAL EXECUTION

- Used pre-built modules for fast development
- Introduced team members to hardware and software
- Delegated skill enhancing tasks during downtime

ACCOMPLISHMENTS

- Designed and built prototype
- Completed detailed Technical Report

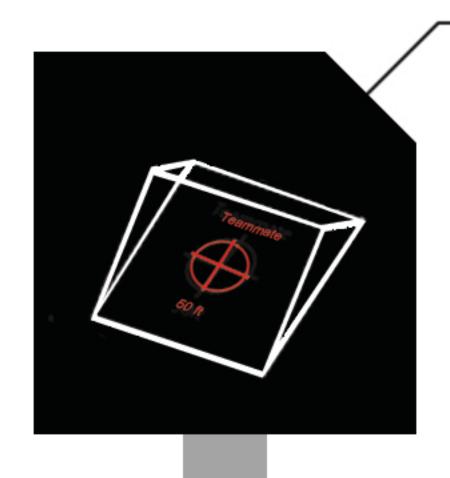
PROJECT CHAILENGES

- Time constraints
- Display technology is still under development
- Indoor demonstration

SYSTANIENTE

Wireless
Communication
allows the device to
"talk" to other Smart
Specs



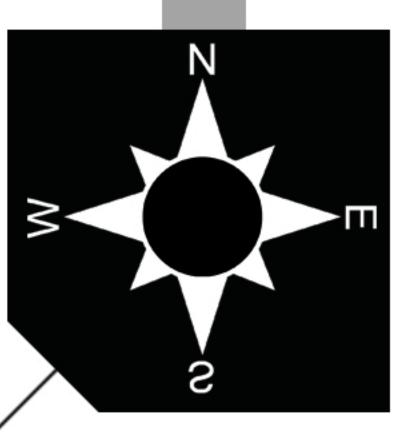


Heads-Up Display (HUD) shows user critical information

Micro-Controller

Acts as the "brain" of the device. Uses wireless, GPS, and compass data to display on the heads-up display.

6-Axis Accelerometer Module gets real-time directional data off of the user's head





GPS Module gets real-time location data

THAT PART AND A PART A

Spring 2010

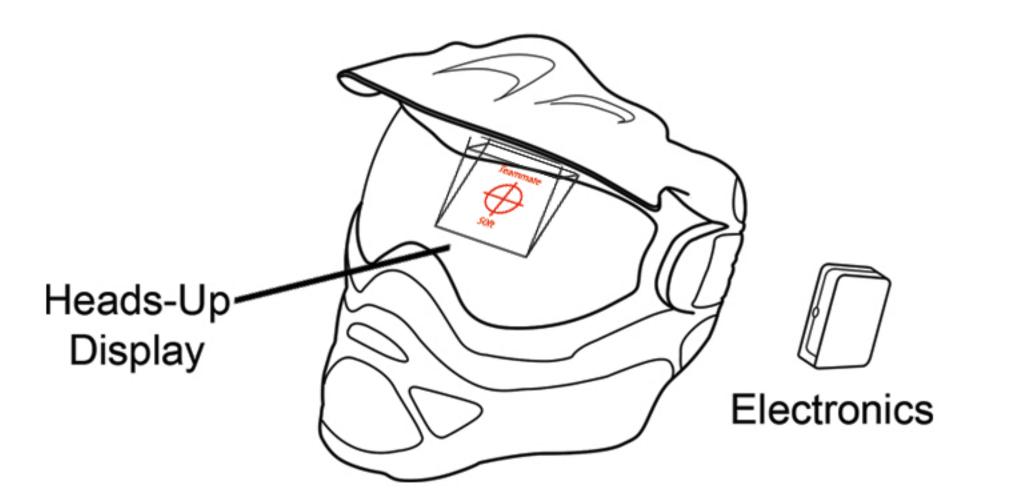
Fall 2010

Functional Prototype Technical Documentation

Alpha Unit Prototype Field Testing Market Ready Product

60% Complete

CURRENT CONCEPT



- Heads-Up Display is retrofitted to the user's paintball mask.
- Runs on a lithium polymer 11.1V battery
- Desired unit cost: under \$750
- Integrated wireless communication,
 GPS, and digital accelerometer
- Real-time display of teammate locations
- Low power consumption
- 150 meter wireless communication range

RECOMMENDATIONS

Future Tasks

- Incorporate OLED (display)
- Include hands-free radio
- Miniaturize electronics (Alpha Unit)
- Conduct alpha testing