A Vehicle Optimized for Search and Rescue

- Provide ability to remotely examine a dangerous situation and post-disaster environment
- Reduce possible dangers at the rescue site (aftershocks, landslides, etc.)
- Improve efficiency of rescue teams in unknown environments

Introduction

- AI car with the function of search and rescue
- Semi-autonomous navigation enabled
- Object Detection
- Equipped with a night vision camera
- GPS location equipped
- Robustness, easy to operate
- Keyboard controls

System Review

Appearance
- High Vision Camera
- 60 Degree Camera
- Temperature Humidity
- Memory SD Card
- Ultrasonic Sensor

Computer Control
- Intelligent Controller
- Motor Controller
- Video Monitor

IntelliSAR
- Search and Rescue
- Mobile Control

Demonstration

- Semi-autonomous navigation enabled, speed range at 0.7~6.5km/h
- Precise object detection, accuracy above 90%

Block Diagram

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Weight</td>
<td>6 lb</td>
</tr>
<tr>
<td>Dimensions</td>
<td>238<em>133</em>115 mm</td>
</tr>
<tr>
<td>Battery Life</td>
<td>Board 3-5 hours</td>
</tr>
<tr>
<td>Camera</td>
<td>Night Vision 5MP</td>
</tr>
<tr>
<td>Speed Range</td>
<td>0.7 ~ 6.5 km/h</td>
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<tr>
<td>Obstacle Detection Range</td>
<td>3 ~ 450 cm</td>
</tr>
<tr>
<td>Video Stream w/ Object Detection Frame Rate</td>
<td>H.264 640x480 @ 30FPS</td>
</tr>
<tr>
<td>Object Detection Range</td>
<td>4 meters (best case scenario)</td>
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