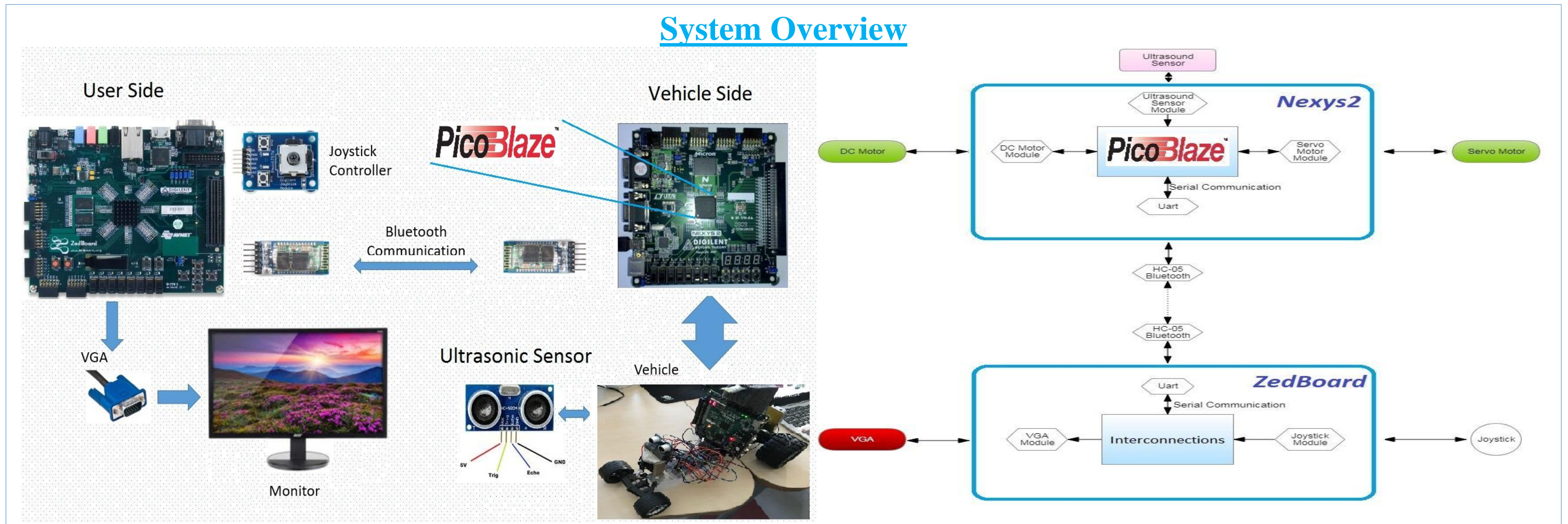


Introduction

EUREKA! is a remote controlled vehicle project that user can control the vehicle with the joystick and it detects obstacles in front of it. Direction of the vehicle is also visualized on monitor.

System Overview



Design Methodology

- Joystick receives direction data from user preference.
- A UART module converts joystick data and sends it to vehicle side via HC-05 Bluetooth module.
- PicoBlaze on vehicle side checks the received Bluetooth data and filters it for direction determination. It also checks if any obstacles in front of the vehicle. If so, vehicle is stopped.
- Motors are driven by PicoBlaze. Direction data is send to HC-05 Bluetooth module on vehicle side by PicoBlaze.
- Received direction data on user side is visualized on VGA.