DSD project report

Team 11

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The idea:

obstacle avoider car that detects obstacles through a distance sensor (ultrasonic) and attempts to avoid them by changing its direction. The car is also equipped with a light sensitivity sensor (LDR) that detects when the there's no light so that a green LED can illuminate the room.

Parts used:

1. Max de-10 lite FPGA
2. Arduino Uno
3. 4 DC Motors
4. L298n H-bridge
5. Ultrasonic Sensor
6. LDR
7. RGB LED
8. 9V batteries
9. Car chassis
10. Breadboard, wires and resistor

Implementation:

1. Arduino code:
2. VHDL code:
3. Circuits:
4. Pin assignment:

Results: