PROJECT PROPOSAL

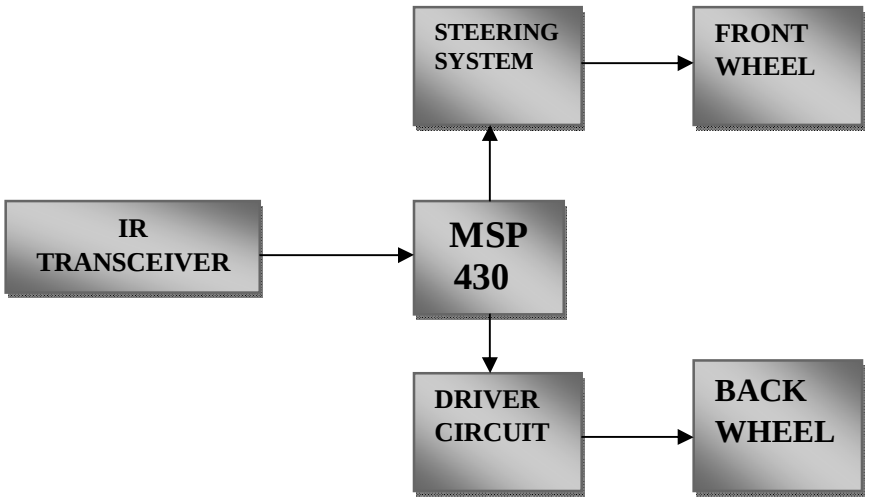
Title: Obstacle Avoidance Car

Goals: **1.** To avoid obstacles in the path.
2. To design steering system for front wheel.

Planning:

- MSP430 initialization
- On-chip module drivers
- IR Transceiver interfacing
- Servo/Stepper motor interfacing
- Motor driver circuit interfacing

Block Diagram:



Hardware & Interfacing:

- MSP-EXP430G2 Launchpad
- IR Transceiver: IR LED (transmitter) and TSOP1738 (receiver) will be used for obstacle detection. They will be interfaced with MSP430 via digital I/O. Timer module will be used for IR LED to drive on 38 kHz.
- Servomotor/ Stepper Motor will be interfaced for steering purpose.
- Motors: H-bridge IC L293D will be used for driving DC motors. IC L293D will be interfaced with MSP430 via digital I/O pins.

MSP430 on-chip modules to be used:

- Timer
- Digital I/O
- Clock