Driverless Car, 1.20.2013

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Problem Definition

- Statement: To design a self driving RC car which can move from one location to another while avoiding obstacles
- Scale: a small originally RC car to be connected to a microcontroller and a sensor suite to allow it to move and change direction based on sensor input.
- Schedule: we plan to be able to make it avoid a singular object in its path by the end of the quarter
- Resources: RC car, microcontroller, sensors (TBD)

Proposed Solution

- We propose to take an existing RC car, replace whatever electronics are inside, and replace them with a microcontroller and sensor suite, allowing us to program the car in C to react to sensor data being fed into the microcontroller via 4 touch sensors.

Research/Analysis

- Currently there are a few autonomous car projects floating around, most notable Google's Driverless Car, which can navigate city streets and traffic safely, relying only on it's sensor and map data.

Potential Applications

- On a larger scale, a self driving automobile is a very interesting concept, seemingly taken directly from science fiction. Autonomous cars theoretically would improve both safety and driver comfort.