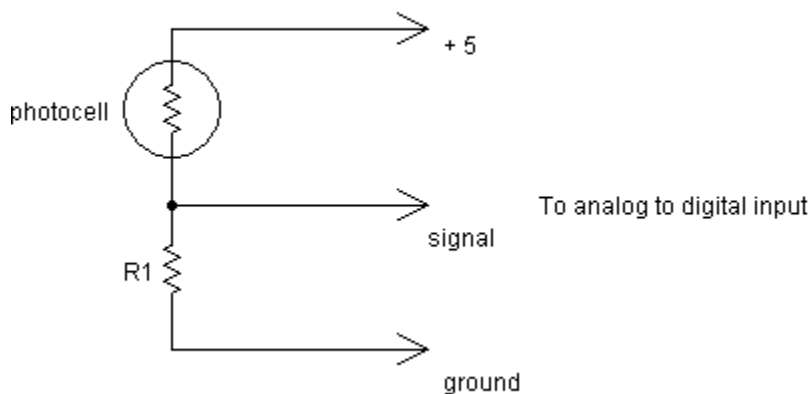


Team Project 2

Create a Keil Micro Vision 2 project called legostart.uv2 and program it into your Lego vehicle. Your Lego vehicle once programmed and placed in the run mode should wait until a flash lamp from a camera or similar light source emits a pulse of light (a sudden increase above the ambient light level). Your vehicle should then move forward until contact with an obstacle occurs. After contacting an obstacle your vehicle should: stop forward motion and turn 180 degrees and halt. Use a photocell and a resistor as shown below to detect the light. **As usual, this is a team project! All team members should participate!**



The value of R1 can be determined by measuring the light and dark resistance of the photocell and then finding a value for R1 such that the difference $R1/(R_{\text{cell light}}+R1) - R1/(R_{\text{cell dark}}+R1)$ is maximized.