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Proposal of Final Project

We were interested in designing a car that goes somewhere that has a brighter light. We would like to realize it in such a way as shown below.

1. Sensor Mounting Position and Operating Principles.

We would connect a light-dependent resistor in parallel with the original resistor to the PWM circuit used to control the motor's speed. The light-dependent resistor would be placed on both sides of the front part of the car, controlling the motors on its opposite side. It should increase the duty cycle of the speed controlling square wave signal when the brightness on this side increases, which would decrease its resistance. When the duty cycle on the opposite side of this photo sensor increases, it moves towards the place that has a brighter illumination. The car would also move at a faster speed if the environment were increasingly brighter.

2. Demand for Materials.

We would need the following components to achieve our design goal. We would need two photoresistors, for diodes, one Schmitt trigger chip, two capacitors, some cables, and the car we have.

3.Calibration and commissioning

In actual operation, the behavior of the car is seen, and the position, sensitivity and program logic of the sensor are adjusted as needed. Debugging can be done by serial output or LED indicator.