ABSTRACT
The light source tracking control system base on the single chip microprocessor of the whole usage MCS-51(8051) whish is integrated by the servocontrol system design, software and hardware and the machine electricity interface technique. The system adopts two degree of freedom; A yaw and pitch so directions, on ising the control top and bottom direction, the light source detects to then adopt four photo electricity diode conduct and actions up, descend, left and right everywhere it detects, controlling the hardware then usage operation the enlarger (OP-Amp) constitutes the light source to enlarge the electric circuit, subtraction electric circuit, the signal direction compare the electric circuit and direct current motor decelerate electric circuit. The main system then makes use of the independent operation, the memory system and the good I/O 8051 single chip microprocessor of the serieses owns to carry on detecting, the signal processing and machine give or get electric shock the interface control. The whole development hopes to build up a set of structure simply, the cost is cheap and function is superior of the light source tracks the system, making use of the single chip microprocessor simple combination language of compose and the good I/O interface can make available the main target. HAVE already reached the originality to expect the target indeed through actual operation process finally.

Keywords: degree of freedom、OP-Amp、single chip microprocessor