Design of Blind E-Reader with Conjugate Cam Group Based on Binary Principle

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At present, Blinds use paper Braille books with little information, and in the market, the Braille E-books are either bulky or expensive. This design is designed to produce a low cost Braille E-book which can display standard text from SD card. As is the Kindle for blind. This design includes two parts, hardware and software. The hardware includes design and manufacture, then the corresponding software is developed based on hardware. Finally, the corresponding test and trial are done. This design is based on binary coding principle and uses one motor to drive multiple cam combinations at the same time, thus the Braille display is completed, and the number of motor is greatly reduced. At the same time, the manufacturing cost is reduced effectively. The physical object of the design has been completed. Based on this design, it is planned to add Bluetooth, WIFI and speech recognition module, so that the blind can learn more widely and truly integrate into the information age. Next step, I'm going to add the multidimensional perception to provide multidimensional information to the blind so that they can better integrate into the society and enjoy their life.

Awards Won:

Fourth Award of $500