Automated Optical Disc Changer Assembly

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Abstract

This paper presents the "Automated Optical Disc Changer Assembly". The machine is essentially an "arm" that allows sequencing through a batch of discs, unattended. The mechanism architecture is basically an automated process of changing CD/DVDs in the recorder. While waiting for the burning software to write the disc, it prepares for the next step: remove the recorded disc from the feeder and insert another one. The system is constructed using an Andruino platform, relay board, an A3967 driver chip, two DC motors, one stepper motor and a CD Writer. The arm is performing a 50 cm distance in 8.8 seconds. ETA of the system is about 12 minutes per cycle. The efficiency of this robot is very near to 90%, as from 10 cycles, only about 1 fails.

Biography

Mihaela Maier is a second year MSc. student at the Faculty of Electronics, Telecommunication and Information Technology in Cluj Napoca. She's very interested in electronics engineering and electronic applications.

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