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PROBABILITY MACHINE DEVICE AND APPLICATION

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The relevance of the work is due to the low prevalence of devices capable of quickly generating truly random numbers, which are of practical value for scientific research, as well as for work in the field of computer modeling and cryptography systems.

The purpose of this work is to develop and prototype a device for generating truly random numbers using lasers and reflective surfaces.

In the course of the work, a literary review of the fields of application of truly random numbers was conducted. Assessment of the impact of "errors" on randomness, selection of materials based on the evaluation results.

In the process, a prototype of a device for generating truly random numbers was created (a structural diagram of the prototype and the algorithm of the program was developed, a functional diagram of the prototype was developed, a basic electrical and basic prototype were developed, a specification of the prototype equipment was drawn up, the rules for testing the prototype device were described, the program code was written in the Arduino language (.ino), the prototype was assembled). A demonstration of the prototype's operability was performed.