

# Device for Measurement of Ionizing Radiation

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## **Abstract**

This bachelor thesis deals with the development of homemade Geiger-Müller counter based device for gamma-ray measurement and a supporting mobile application for the Android. Thesis also contains the introduction to the physical and chemical basics necessary for the successful realization of the device. The design of the device is elaborated based on the analysis of similar devices for measurement of ionizing radiation. The device is composed of the Arduino kit and board with Geiger-Müller tube. This device can be controlled via mobile phone using Bluetooth interface. The text also describes device testing in Department of Radiation Dosimetry and the results are compared with the dosimeter commonly used in laboratories.

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