The aim of the final work is to describe implementation of educational technology in to the teaching process. It focuses on the use of specific teaching resources - educational robotics kits - for teaching at primary and secondary schools. The final work is aimed at two parts - on the theoretical level, when dealing with areas of robotics, educational robotics, constructionism and constructivism and at the practical level through the detailed characteristics of available resources and methods of use of educational robotics kits in education. Both views on the issue reflects formal arrangement of final work on theoretical and practical (empirical) part. Theoretical part is mainly based on information sources and primary and secondary resources, which were subjected to detailed analysis. The practical (empirical) part is based on the author's educational activities - undertaken work with specific material instruments used in the context of continuously held educational robotics projects and courses, as well as the application of empirical qualitative methods, including experimental model of teaching and longer-term verification methodologies and teaching strategies used in the field of educational robotics.