



AKADEMIA NAUK
STOSOWANYCH
W TARNOWIE

Mobile application to control multiple LEGO trains

Dyplomant: Krystian Pikus
Promotor: dr inż. Daniel Król

Introduction

On the first floor of building C of our university there is a model railway. It was built during the activities of the science club and served us as the basis of the infrastructure on which LEGO trains move.



Technologies used

- C++
- QT Creator IDE
- QML



Hardware Improvements

LEGO wireless HUB



LEGO engine

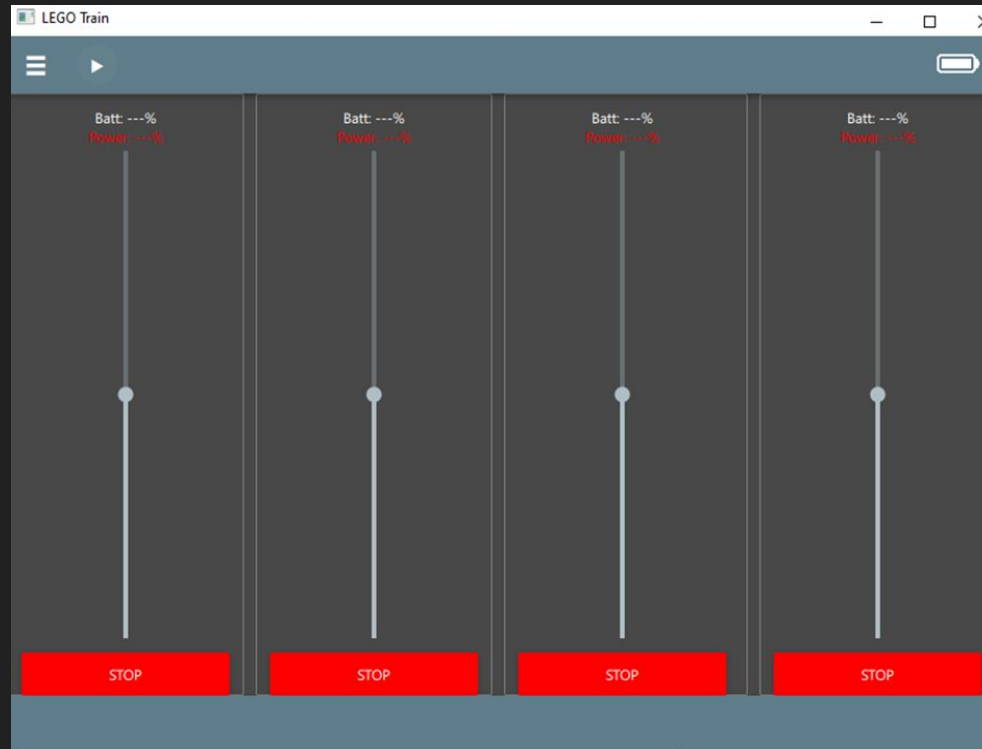


Bluetooth Low Energy

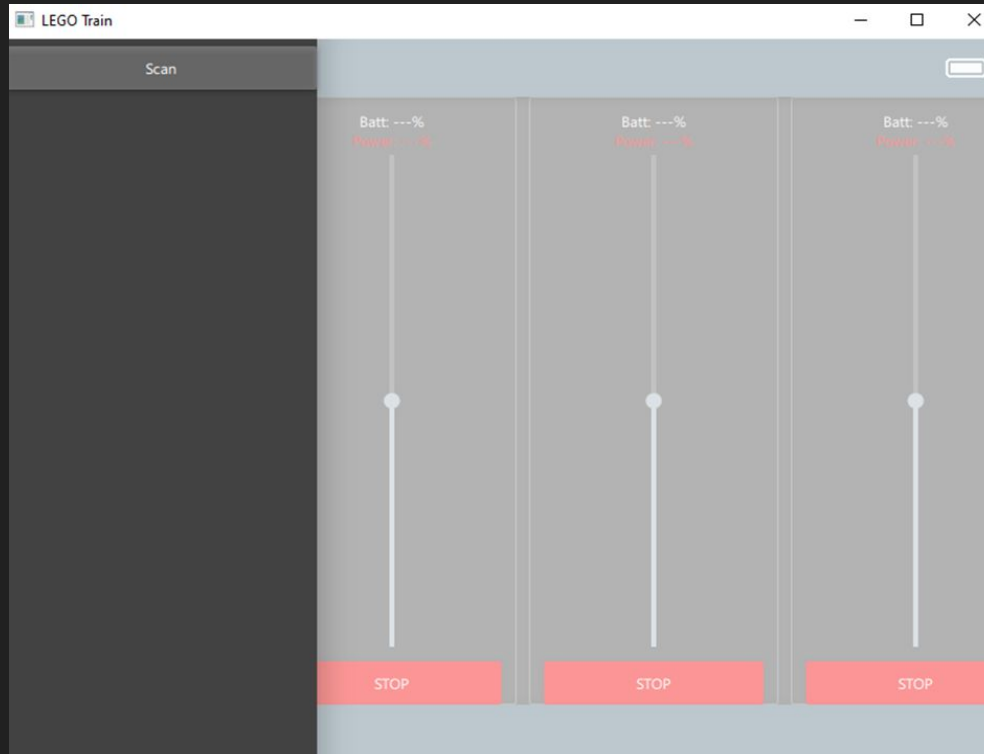
The Bluetooth Low Energy standard and the Wireless LEGO 3.0 protocol were used for communication between the application and hardware components.



Main View



Device scanning



Application window

The actual application window consists of 4 regulators. Each of them is responsible for the speed of their train.

