



Politechnika Wroclawska

TELEMEDICINE INTERFACE FOR
INTERACTIVE TOYS
FINAL REPORT

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INTERMEDIATE PROJECT
UNDER INSTRUCTIONS OF WITOLD PALUSZYŃSKI PH.D.

PROJECT WAS FOCUS ON DEVELOPMENT AN APPLICATION FOR SMARTPHONES
WITH ANDROID SYSTEM. IT WILL BE USE WITH A SPECIAL PREPARED
ROBOT-TOY. THROUGH THIS APPLICATION AND WITH SPECIAL TOY MEDICAL
CREW WILL KNOW HOW THE CHILDREN FEELS.

1 LUTEGO 2017

1 Introduction

This project is a part of a bigger one which probably come into being in the future. This part consist of an application for smartphones with Android system. The app was develop in Visual Studio with Xamarin plugin which allows to write in C# language. Beyond development of the application the goal was to learn new programming language – C# and XAML, both were using during the project.

2 Project development

During the project I had to learn some new things so I started from some tutorials which are available in the Internet. First I started with standard application that counts only clicking on a button and toast message. Second application was much more difficult. It was also developed with online tutorial. It uses Bluetooth. This application allows user to:

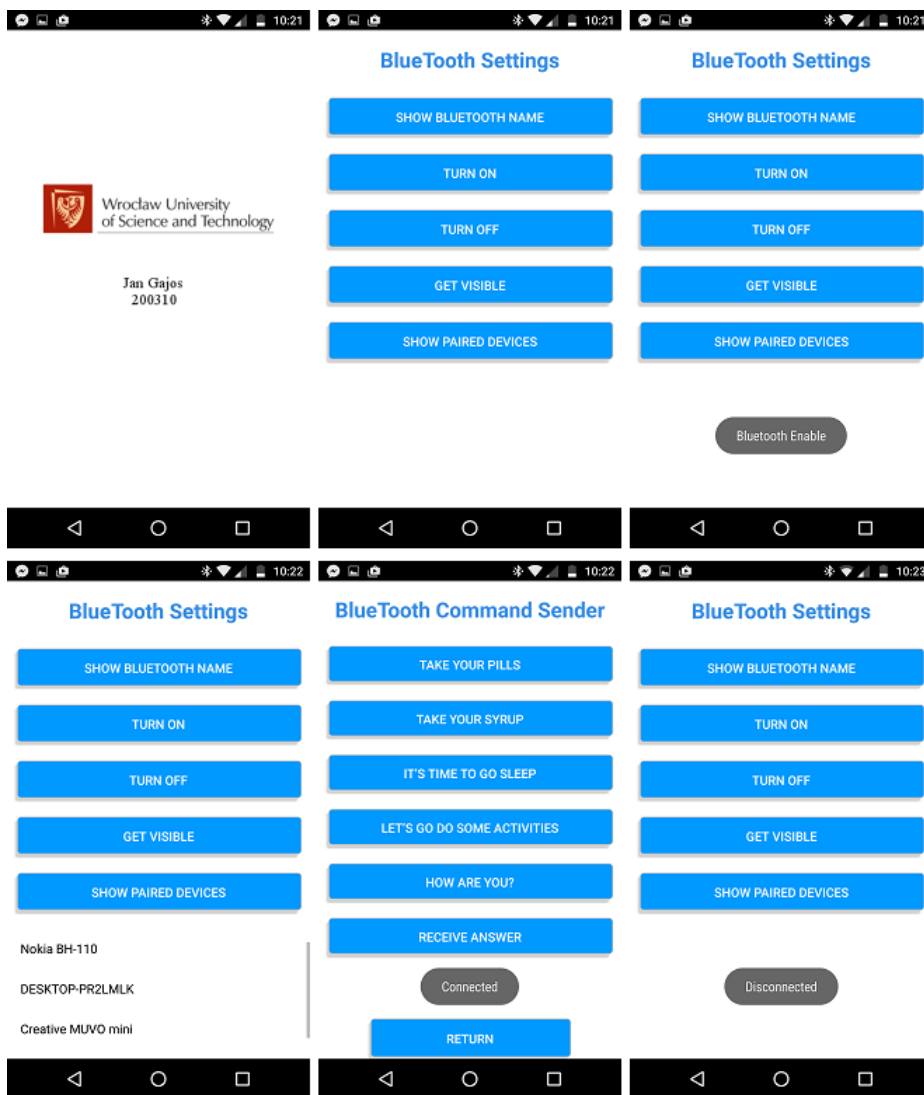
- change the name of the device
- become visible
- show paired devices
- turn on/off BT

Next step was to create an app that allows to connect to other devices and send commands via Bluetooth and also receive an answer. To achieve that I used previous knowledge and programs. First I started to add such feature like connecting to other BT devices. Then I changed the appearance of the app to make it more friendly to the user by changing the XAML code. After that I tried to add splash screen that displays the author of the app. It can be also use to present the logo of the company etc. At the end I added the opportunity to receive message from the toy (that's now imitated by a terminal on a computer).

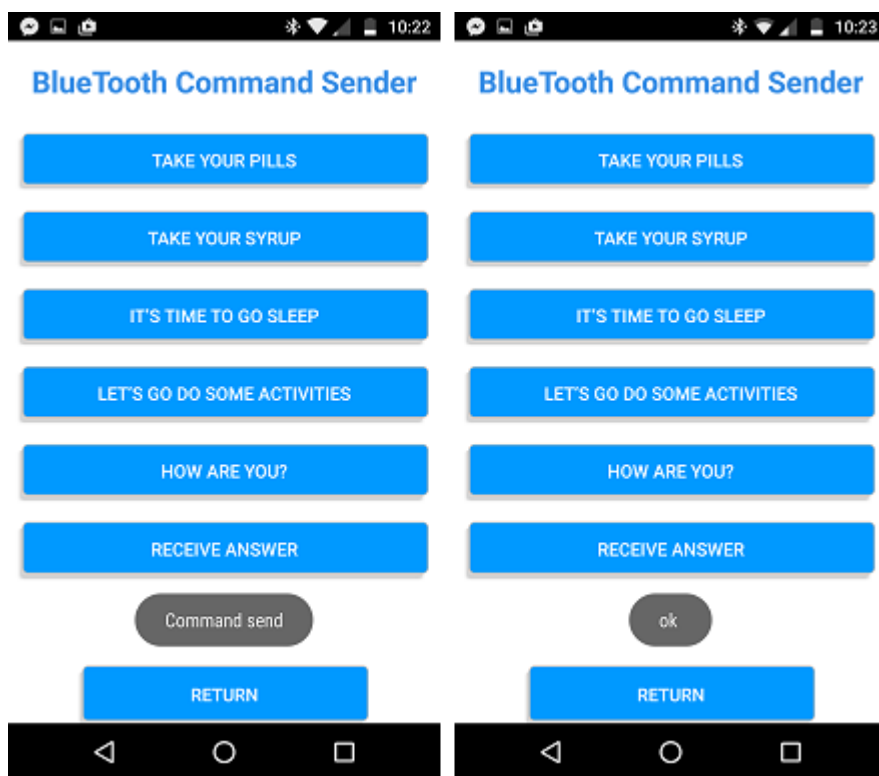
3 Using the application – instruction

1. First the devices must be paired before launching the application.
2. When the app starts you should see splash screen.
3. Then you can turn on Bluetooth.

4. After this you can see the list of the paired devices and chose one to connect.
5. If the connection is properly summarized you should see toast message and no screen should appear.
6. Now you can send command to toy (simulated by terminal on computer). You can also receive message by clicking – Receive answer or Return to end connection.



Rysunek 1: The behaviors and appearance of the application



Rysunek 2: Toast message after sending and receiving message

4 Conclusion

The final version of the project fulfilled the assumption – we can send and receive message. The project also allows me to learn new language - C# and also basics of XAML.