

Android Development

Final Assignment 2015



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Part 1 - NeoPixel Control

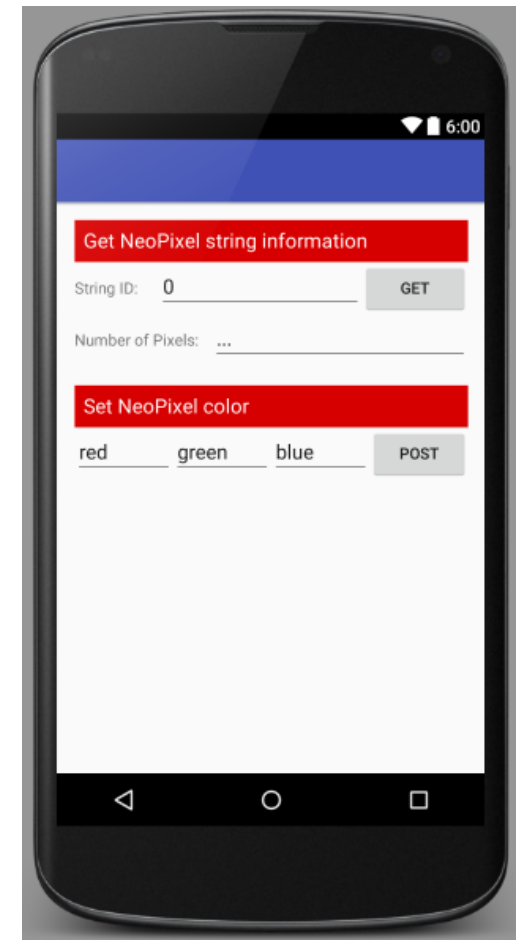
Thumper RESTful Control

- The final assignment for the Android course consist of building an Android application which controls the 6WD Thumper available in the LAB
- The application should be able to control the NeoPixel LED-rings attached at the bottom exposed as a REST API
- The application should be able to control the TRex motor controller to make the Thumper move. It is also exposes using a REST API
- Basic requirements
 - User friendly
 - Good looking
 - Configurable
 - Error prone
 - Check all user input for errors

Thumper RESTful Control

NeoPixel Control Activity

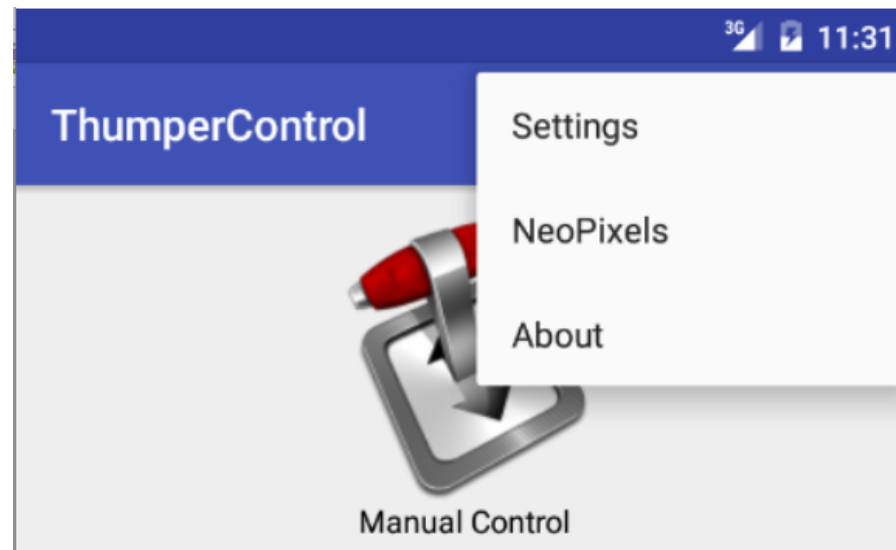
- My example of the GUI
 - Make sure to create your own and be creative
- Also make sure to check out the REST API documentation for other possible effects such as Strobe or Fade
 - Information on the REST API of the Thumper can be found on https://github.com/BioBoost/node_thumper_control
 - Make use of the Retrofit library to make requests to the REST API of the Thumper
 - Add at least one extra effect
- The id of the NeoPixel string should not be entered by the user through the Activity but should be part of the application settings (see next slide)



Thumper RESTful Control

About Activity

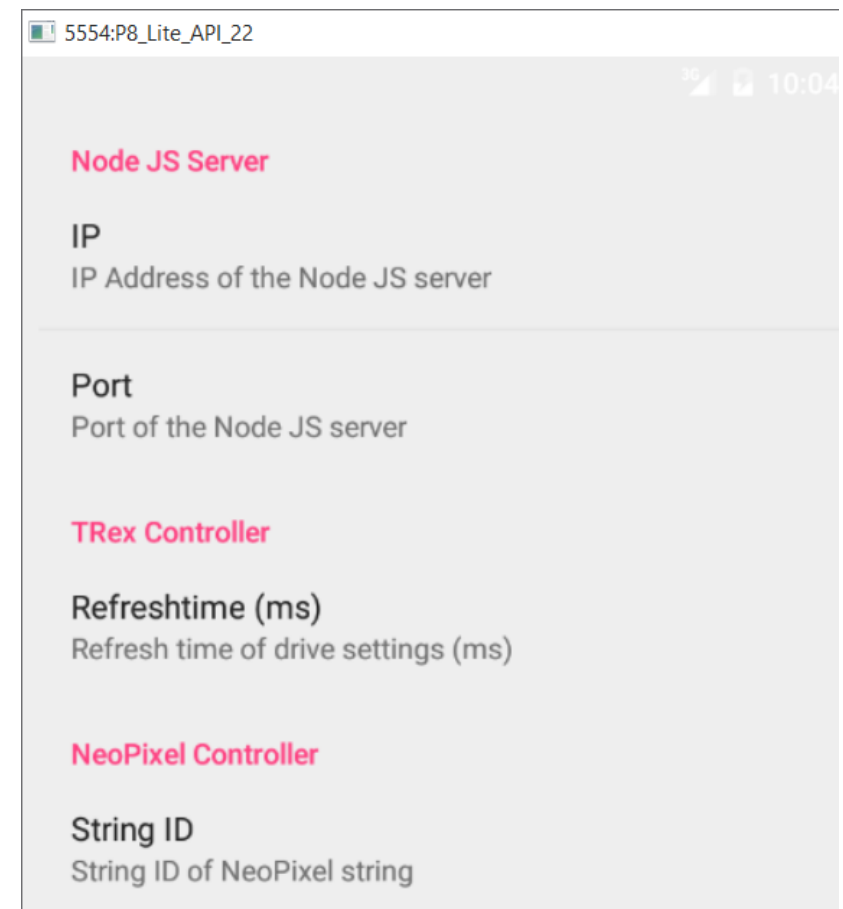
- Create a nice looking about activity with some information on the application
 - Describe the use of the application and who made it
- The About activity should be invoked from the options menu added the main activity



Thumper RESTful Control

Settings Activity

- Create an Application Settings Activity to host most configuration options of the application
- This activity should be invoked from the options menu in the Main Activity
- Some needed preferences are:
 - The IP address of the Thumper server
 - For the REST base_url
 - The port used for the Thumper server
 - For the REST base_url
 - The refresh time for the drive controls of the TRex controller
 - The NeoPixel string ID



To Be Continued

