

Remote-Vision-Subsystem

José Miguel Alves Pires*

<2020-05-11 Mon>

Contents

1	Functionalities	1
2	FSM	2

1 Functionalities

1. Communication

- (a) Wifi: Android
 - i. Discover network
 - ii. Open: Connect to Wifi
 - A. Config
 - B. Authenticate
 - iii. Ping device
 - iv. Send/Write
 - v. Receive/Read
 - vi. Close
- (b) GPRS: Android
 - i. Discover network
 - ii. Open: Connect to GPRS
 - A. Config
 - B. Authenticate
 - iii. Ping device

*a50178@alunos.uminho.pt

- iv. Send/Write
- v. Receive/Read
- vi. Close
- (c) RS232: Navigation system
 - i. Open: Connect to Navigation
 - A. Config
 - B. Authenticate
 - ii. Ping device
 - iii. Send/Write
 - iv. Receive/Read
 - v. Close
- (d) Sensors: eventually on a I2C network
 - i. Open
 - Discover Device
 - ii. Send/Write
 - iii. Receive/Read
 - iv. Close

2. Image acquisition

- (a) Start
- (b) Read
- (c) Stop
- (d) Set frame rate

3. Processing

- (a) User commands
- (b) Telemetry: statistical data about navigation:
 - i. Distance
 - ii. Max velocity
 - iii. Operation time, etc.

2 FSM