

## BLE specs

To test the Raspberry Pi 3 side, you can use nRF Connect for Mobile

**Remote Service = 0x7DB9**

**State Characteristic = 0xD288** - Write without response

State 1	State 2	State 3			Joystick 1	Joystick 2	Joystick 3
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### State

Turbo	Moving	Mode	Idle	Code	
0	0	0	0	0	Car stopped, manual mode
0	0	0	x	1	Car started, manual mode, no turbo, not moving
0	x	0	x	2	Car started, manual mode, no turbo, moving
x	0	0	x	3	Car started, manual mode, turbo, not moving
x	x	0	x	4	Car started, manual mode, turbo, moving
0	0	x	0	5	Car started, autonomous mode, not moving
0	0	x	x	6	Car started, autonomous mode, moving

### Joystick direction

0°	45°	90°	135°	180°
2	4	0	3	2

Angle in °: 0° = far right, 180° = far left

## Feedback Characteristic = 0xC15B - Read - Notify

mode	direction		speed				
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battery		sonar			centering		
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Mode: mode the car is in

Direction: direction the car is going in

Speed: speed in dm/s, max 31dm/s = 3.1m/s

Battery: battery level

Sonar: detected obstacles and their location

Centering: position of the car on the road

Code	Feedback	Code	Alert
1	Manual mode	0	No obstacle present
0	Autonomous mode	1	Obstacle present
3	Not Moving	Bit n°1	Obstacle right
2	Moving right	Bit n°2	Obstacle front
0	Moving forward	Bit n°3	Obstacle left
1	Moving left	0	Car centered
0	Battery full	1	Car drifting right
1	Battery mid	2	Car critically right
2	Battery low	3	Car drifting left
3	Battery critical	4	Car critically left