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SUSTAINABLE DEVELOPMENT, GLOBAL CHANGE & ECOSYSTEMS
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Three operational cybercars

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1 Preface

The following document is a CityMobil deliverable which has the status “other”. This means that the deliverable is not a written report, but rather an achievement.

2 Description

2.1 Three operational cybercars

Three INRIA’s cybercars (3 Cycab) plus one spare vehicle (Yamaha AGV) to be presented in the cybercars showcases have been prepared. The vehicles have the following specifications:

2.2 CyCab specifications

Figure 1. Picture of the CyCab cybercar



Specifications	
Mass	350 Kg
Maximum speed	30 Km/h
Brakes	
Type	Electric
Specifications	Disc brakes
Propulsion	
Type	Electric
Specifications	4 electric motors, one by wheel
Obstacle detection system	
Type	IBEO multilayer laser scanner, Stereo-camera holder with FireWire bus + 2 Marlin cameras

Specifications	Range: 100 mts, Frequency:
Communication system Present? Type Specifications	Yes Wi-Fi, GPRS through 4G Cube Range: Wi-Fi: 50-150 mts. GPRS: 2-3 kms depending on base stations around
Central control system Present? Type Specifications	Yes CAN, inertial unit, compass, RTK GPS, Windows PC, Linux PUBLIC, large screen
Emergency switches Present? Type Specifications	Yes Radio remote controled emergency stop, Internal stop button
Specific safety measures Doors present Door locks present	No No

2.3 Yamaha AGV specifications

Figure 2 Picture of the Yamaha AGV cybercar



Specifications	
Mass	650 Kg
Maximum speed	30 Km/h
Brakes Type Specifications	Electric
Propulsion	

Type	Electric
Specifications	2 wheel drive
Obstacle detection system	
Type	IbeoLD laser scanner, Firewire video camera
Specifications	Range: 100 mts, Frequency:
Communication system	
Present?	Yes
Type	
Specifications	
Central control system	
Present?	Yes
Type	Windows PC, Odometry, GPS, Screen and keyboard
Specifications	
Emergency switches	
Present?	Yes
Type	
Specifications	
Specific safety measures	
Doors present	No
Door locks present	No