

Rhoban Football Club – Robot Specification Page

Humanoid KidSize League, Robocup 2016 Leipzig

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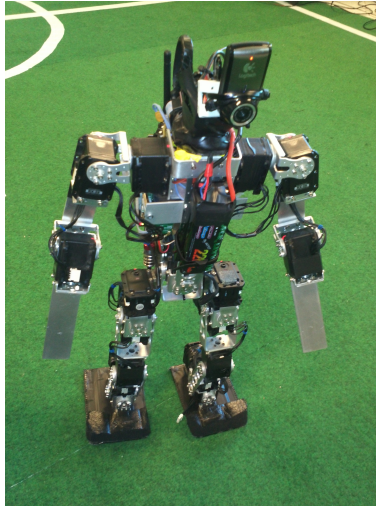
CNRS, LaBRI, University of Bordeaux
33405 Talence, FRANCE

1 Sigmaban 1.0



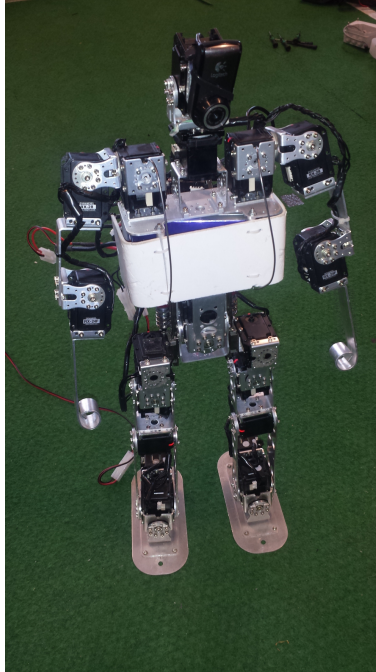
- **Robot name:** Sigmaban 1.0
- **Height:** 56cm
- **Weight:** 3.7kg
- **Walking speed:** 0.15m/s
- **Number of degrees of freedom:** 22
- **Type of motors:** Dynamixel RX-28, Dynamixel RX-64.
- **Sensors:**
 - Camera Type: Philips SPC620NC
 - Gyroscope: IDG500
 - Accelerometer: ADXL335.
- **Computing unit(s):** ARM9, 64MB SDRAM, 210MHz
ARM7, 64kB RAM, 55 MIPS.

2 Sigmaban 1.1



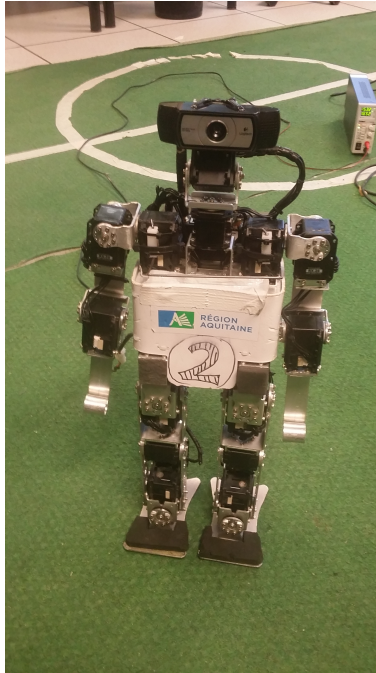
- **Robot name:** Sigmaban 1.1
- **Height:** 56 cm
- **Weight:** 4.0kg
- **Walking speed:** unknown
- **Number of degrees of freedom:** 22
- **Type of motors:** Dynamixel RX-28, Dynamixel RX-64.
- **Sensors:**
 - Camera Type: Logitech C905
 - Gyroscope: IDG500
 - Accelerometer: ADXL335.
 - FSR force sensor (feet)
 - Potentiometers (hip linear passive joint)
- **Computing unit(s):** FitPC 2GB SDRAM, 1.6GHz ARM7, 64KB RAM, 55MIPS.

3 Sigmaban 1.2



- **Robot name:** Sigmaban 1.2
- **Height:** 56 cm
- **Weight:** 4.0kg
- **Walking speed:** 12 cm/s
- **Number of degrees of freedom:** 22 actuated, one passive linear joint
- **Type of motors:** Dynamixel RX-24, Dynamixel RX-28, Dynamixel RX-64.
- **Sensors:**
 - Camera: Logitech HD Pro C905
 - IMU: 9 Degrees of Freedom - Razor
- **Computing units:**
 - Low-level: ARM7 (stm32) 72MHz (Maple mini)
 - High-level: fit-PC2, Intel Atom 1.6GHz, 2GB SDRAM, SSD 128Go
- **Operating System:** Linux (Debian 7)

4 Sigmaban 1.3



- **Robot name:** Sigmaban 1.3
- **Height:** 54 cm
- **Weight:** 3.8kg
- **Walking speed:** 25 cm/s
- **Number of degrees of freedom:** 20
- **Type of motors:** Dynamixel RX-28 (upper body), Dynamixel RX-64 (lower body).
- **Sensors:**
 - Camera: Logitech HD Pro C930
 - IMU: 9 Degrees of Freedom - Razor
- **Computing units:**
 - Low-level: ARM7 (stm32) 72MHz (Maple mini)
 - High-level: fit-PC2, Intel Atom 1.6GHz, 2GB SDRAM, SSD 128Go
- **Operating System:** Linux (Debian 7)

5 Sigmaban 1.4



- **Robot name:** Sigmaban 1.4
- **Height:** 60 cm
- **Weight:** 4.5kg
- **Walking speed:** 25 cm/s
- **Number of degrees of freedom:** 20
- **Type of motors:** Dynamixel RX-28 (upper body), Dynamixel RX-64 (lower body).
- **Sensors:**
 - Camera: Logitech HD Pro C930
 - IMU: 9 Degrees of Freedom - Razor
 - Foot Pressure: 8 Strain Gauge Sensors (4 per foot)
- **Computing units:**
 - Low-level: ARM7 (stm32) 72MHz (Maple mini)
 - High-level: fit-PC2, Intel Atom 1.6GHz, 2GB SDRAM, SSD 128Go
- **Operating System:** Linux (Debian 7)

6 Grosban 1.0



- **Robot name:** Grosban 1.0
- **Height:** 90 cm
- **Weight:** 6.5kg
- **Walking speed:** 15 cm/s
- **Number of degrees of freedom:** 20
- **Type of motors:** Dynamixel MX-28 (upper body), Dynamixel EX-106 (lower body).
- **Sensors:**
 - Camera: Logitech HD Pro C930
 - IMU: 9 Degrees of Freedom - Razor
 - Foot Pressure: 8 Strain Gauge Sensors (4 per foot)
- **Computing units:**
 - Low-level: ARM7 (stm32) 72MHz (Maple mini)
 - High-level: fit-PC2, Intel Atom 1.6GHz, 2GB SDRAM, SSD 128Go
- **Operating System:** Linux (Debian 7)