



## ROBOT SPECIFICATION

### PHYSICAL SPECIFICATIONS

|                      |                                       |
|----------------------|---------------------------------------|
| Height (cm)          | 90                                    |
| Weight (kg)          | 7.65                                  |
| Walking Speed (cm/s) | 20                                    |
| Battery              | 14.8 V, 4200 mAh LiPo                 |
| Printed Material     | Onyx (Carbon Fibre / Nylon Composite) |
| Machined Material    | 6063 Aluminium Alloy                  |

### DEGREES OF FREEDOM

|              |           |
|--------------|-----------|
| Legs (each)  | 6         |
| Arms (each)  | 3         |
| Neck         | 2         |
| <b>Total</b> | <b>20</b> |

### MOTORS AND SENSORS

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| Dynamixel XH540-W270-R Servo                                          | x10 |
| Dynamixel MX-106AR Servo                                              | x2  |
| Dynamixel MX-64AR Servo                                               | x8  |
| FLIR BlackFly S BFS-U3-13Y3C-C                                        | x2  |
| 6-axis Inertial Measurement Unit ICM-20648/ICM-20689                  | x1  |
| Interlink Electronics Force Sensitive Resistor 402 (work in progress) | x8  |

### COMPUTING UNITS

|                                      |         |
|--------------------------------------|---------|
| Intel NUC12WSHi7 (Core i7-1260P)     | 4.7 GHz |
| Robotis OpenCR1.0 ( <i>current</i> ) | 216 MHz |
| NUbots NUsense ( <i>alt</i> )        | 480 MHz |

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NUGUS Robot.