Electric Sheep - Robot Specification $2020\,$

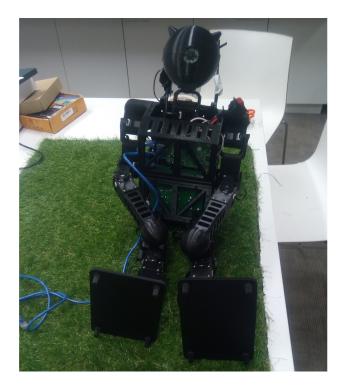


Figure 1: Current iteration of Black Sheep V2

We have four players (a full team) of the following specification:

Property	Value
Name:	Black Sheep V2
Height:	75.0 cm
Weight:	$3.56~\mathrm{kg}$
Walking Speed:	$\sim 2 \text{ cm/s}$
DoF:	Total of 20 degrees of freedom:
	1x Head - 2 DoF
	2x Arm - 3 DoF
	2x Leg - 6 DoF
Sensors:	Camera: Logitech C920 @ 640x480 pixels, 30 FPS,
	YUVY 422 pixel format, USB 2.0
	IMU: 6 DOF MPU-6050 3 axis gyro with accelerometer
Computing:	Main board: Raspberry Pi 3 B+
Other:	Motors:
	8x Feetech SM30 (30 kg/cm)
	12x Feetech SM40BL (40 kg/cm)
	Smart controller: 2x URT-1 SMS & SCS motor board
	Battery: 4 cell, 16.8V, 2200 mAh LiPo