

# MURV-100 Robot System

## Specifications

Robot Vehicle	without an arm	w/Standard Arm held horizontal	w/Standard Arm held vertical	w/Extendable Arm held vertical
Length	58cm	124cm	58cm	58cm
Width	43cm	43cm	43cm	43cm
Height	11cm	30cm	124cm	100 to 245cm (*)
Height (using elevator block)	n/a	61cm	155cm	130-275cm (*)
Weight	14kg	23kg	23kg	30kg

(\*) *Extendable arm telescopes*

Control Console	on shoulder harness w/o hardcase	in hardcase w/color LCD
Width (right—left)	32cm	61cm
Depth (front—back)	24cm	48cm
Thickness (up—down)	11cm	22cm
Weight	4kg	16kg

Arm Joints	Standard Arm	Extendable Arm
Range of movement at shoulder	0° to 90°	+10 to -10°
Range of arm bending at elbow	+90° to -90° (180° total)	this arm has no elbow
Range of wrist pitching up-down	+90° to -90° (180° total)	+90° to -90° (180° total)
Range of wrist rotation	± 360° continuous rotation	± 360° continuous rotation
Range of turntable rotation right—left	+90° to -90°	+90° to -90°

Mobility	Standard Wheels (10)	Large Wheels (4 to 6)	Track System
Wheel diameters	11.5cm	15.24cm	two tracks
Ground clearance	3.3cm	5.3cm	13.2cm
Maximum speed, standard drive	17.7m/min	23.2m/min	6.1 m/min
Maximum speed, optional high-speed drive	28.3m/min	37.1m/min	9.8m/min
Maximum height of traversable step (*)	22cm	30cm	36cm
Maximum width traversable ditch (*)	31cm	36cm	40cm
Maximum angle of lateral stability (arm held low)	35°	35°	45°
Maximum angle of climbable dry surface	43°	45°	48°

(\*) *more with techniques using arm*

Control and Video Systems	Standard RF	Extended Range RF	Fiber Optics
Open range line-of-sight	300m	500m	100, 200 or 300m
Built-up areas	100m	200m	100, 200 or 300m

Lifted/Supported Weight in Hand	Standard Arm	Extendable Arm
With arm near vertical	22.7kg	21.1kg
With arm horizontal	5.5kg	not applicable
With arm horizontal and optional counterweights	11.0kg	not applicable

Power Supply	Vehicle	Control Console
12 Volt sealed gel-cell batteries in modular power packs <i>(replacement gel-cell batteries available world-wide from local industrial supply houses)</i>	2 pcs in 1 module	1 pc in 1 module
Run time on one charge <i>(depends on severity of use)</i>	3 to 4 hours	4 to 5 hours
Battery charger, automatic, charge rate controlled; <i>(runs on AC at 110/120V or 220/240V or 12V DC car lighter)</i>		

Environmental Characteristics	
Operating temperature range	-30° to +75° C
Operating humidity range	0 to 99% non-condensing
Water	Splash-proof and water-resistant but not submersible