

## Overview

Our namesake BURRO robot is where all of this began. BURRO was forged in the fields, running side-by-side with our customers since 2017. BURRO, in its standard configuration, is primarily a carrying vehicle, designed for use in harvesting of specialty crops. BURRO utilizes computer vision, high-precision GPS and AI to navigate autonomously in outdoor environments.

BURRO has also proven to be a formidable mobility platform for complementary systems to ride on, such as spraying, mowing, monitoring, and more.



## Dimensions & Weight

<b>LENGTH</b> 54.4 in (138.2 cm)	<b>HEIGHT</b> 28.6 in (72.64 cm)
<b>WIDTH</b> 36.25 in (92.1 cm)	<b>PAYLOAD AREA</b> 36 (91.44 cm) x 47.825 (121.48 cm) Slatted Steel Tray
<b>WEIGHT</b> 400lb (182 Kg)	

## Carrying & Towing Capacity

<b>MAX CARRYING PAYLOAD<sup>1</sup></b> 500 lbs (226 kg)	<b>MAX TOWING PAYLOAD<sup>2</sup></b> 2000 lb (907 kg)
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<sup>1</sup>Rated for concrete/asphalt. Up to 500lbs (xx kg) allowable on mud/gravel

<sup>2</sup>Will vary based on speed, terrain, and carrying/towing payload

## Power & Range

**MOTORS**  
4 x Right angle drive brushed motors

**PEAK POWER**  
5.2 hp (3.88 kW)

**CONTINUOUS TORQUE**  
92.7 ft-lb (125.68 Nm)

**PEAK TORQUE**  
323.8 ft-lb (439 Nm)

**MAX SPEED<sup>4</sup>**  
4.8 mph

**BATTERY**  
2.4 kWh / 24V

**BATTERY RANGE<sup>5</sup>**  
10 mi (16km)

**OPERATING TEMPERATURE**  
-4°F to 113°F (-20°C to 45°C)

**CHARGE TIME**  
8 hours

**CHARGING INPUT**  
100-240 VAC, 50-60Hz: 8-10A at 120 VAC, 4-5A at 240 VAC

**CHARGING OUTPUT**  
Onboard: 24VDC, 13A

**CHARGING TEMPERATURE**  
32°F to 122°F (0°C to 50°C)

<sup>4</sup> BURRO can go up to this speed. Autonomy, load, and field conditions can/ will reduce its maximum speed

<sup>5</sup> Additional batteries can be added for extended range. Will vary based on speed, carrying/towing payload, and terrain (type & grade)

## Wheels & Tires

### WHEEL

6" split rim (2-13/16" Bolt pattern)

### TIRE<sup>6</sup>

R1, 14 x 4.5-6 in; Tube - 13 x 5-6

### TIRE PRESSURE

15 psi (xx kPa)

<sup>6</sup>This is the standard/default tire for BURRO. Alternative tire options can be available in the future

## Computing & Sensors

### CAMERA SYSTEM

4 x Stereo Camera (12 Cameras in Total)

### GPS

RTK (NTRIP Compatible)

### LIDAR

3D LiDAR

### MODEM

4G LTE Modem

### CPU & GPU

All Computing Onboard/Local

### RAM

16GB (upgradeable to 32GB)

### STORAGE

256 GB SSD

### COOLING

Zero-ingress Forced-Air Cooling System

## Interface & Safety Features

### SCREEN

7" LCD Touch Monitor

### BRIGHTNESS

1000 nits

### RESOLUTION

1024 x 600

### BUMPER BAR/SAFETY EDGE

Front & Rear

### REMOTE VIEW

Online dashboard view: See robot on map, what it's doing, and what it's seeing

### VISUAL

Front & Rear LEDs provide cues & safety/area lighting

### AUDIO

Cues inform users of Burro's autonomy & when it's in motion

## Autonomy

### PERSON FOLLOWING

Vision Based

### AUTONOMOUS ROUTES (TEACH & REPEAT)

Vision + GPS

### ROW NAVIGATION + ROW TO ROW

Vision Based

### DOCKING

Vision + GPS

### ATLAS (ONLINE ROUTE CREATION & MANAGEMENT + DESTINATION BASED NAVIGATION)

GPS

### OBSTACLE HANDLING (STOPPING & AVOIDANCE/PATH PLANNING)

Vision

### DATA COLLECTION

Up to 1 TB/hour

### CROP SCOUTING

Vision Based

