

ROBOTIX MARKET

PRODUCT BROCHURE
2026 edition

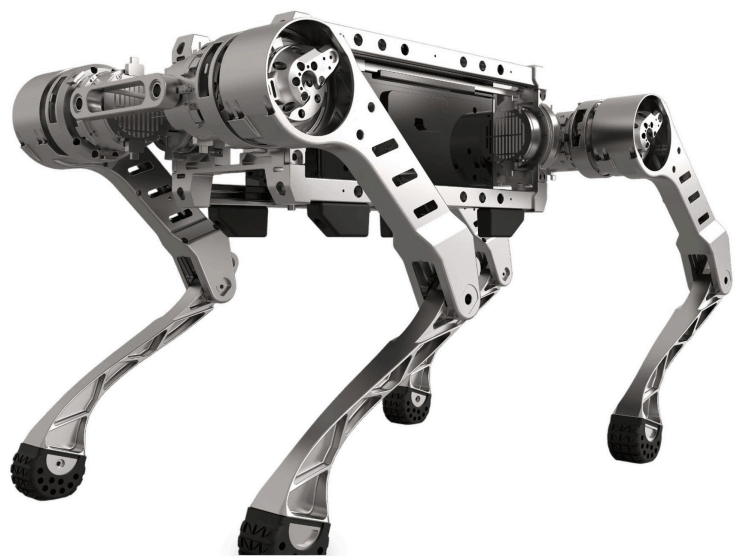
MIRRORME · QUADRUPED ROBOTS ·
ROBOTIX MARKET

MirrorMe

Black Panther X

A modular robot dog you build
yourself, in two editions:
Black Panther X and
Black Panther X Pro

Over 200 functional components, 12
independent joints and open interfaces,
shells and code on both editions, with
speeds up to 4 m/s. About 1.5 hours per
charge on the BPX, about 4 hours on the
BPX-PRO.



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OVERVIEW

Build it, program it, make it yours

The Black Panther X is MirrorMe's modular, build-it-yourself quadruped robot. It is made of more than 200 functional components, including 12 independent high-performance joints, an open perception head and an expansion dock, which fit together through standardised modules and unified interfaces. Both editions share the same build, motion range and open software; the Black Panther X Pro adds a larger battery, stronger joints and a higher payload.

Over 200 components

A fully modular design: 12 independent high-performance joints, an open perception head and an expansion dock, and every part can be detached, replaced or upgraded.

No special tools

Standardised modules with unified interfaces take a beginner from separate parts to a finished robot, with no special tools or skills. MirrorMe also offers it pre-assembled.

Agile on four legs

12 degrees of freedom, speeds up to 4 m/s, about 20 cm climbs and 30° slopes on both editions, and flips of up to 720° on the BPX.

Open interfaces, shells and code

Customise gaits and control logic, train motions with reinforcement learning and 3D-print your own shells from MirrorMe's shell files.

SDK, visual programming, app

A C++ and Python SDK for developers, a visual programming tool for first lessons and custom control through the app, on both editions.

Ready for sensors and payloads

Third-party sensors, cameras and payloads fit the open perception head and the expansion dock; add a computer such as a Jetson Orin or a Raspberry Pi for autonomy.

12

DEGREES OF
FREEDOM

4 m/s

SPEED, UP TO

~20 cm

CLIMBING HEIGHT

30°

CLIMBING ANGLE

200+

FUNCTIONAL
COMPONENTS

Which Black Panther X?

ONE BUILD, TWO EDITIONS

167 Wh

ABOUT 1.5 H PER CHARGE

BPX

Black Panther X

The standard edition: lighter, for builds, lessons and first projects

- 167 Wh battery: about 1.5 h with no load
- Max joint torque about 33 N·m
- Max payload about 5 kg
- 15.1 kg with battery · 370 mm wide
- MirrorMe manufacturer warranty

418 Wh

ABOUT 4 H PER CHARGE

BPX-PRO

Black Panther X Pro

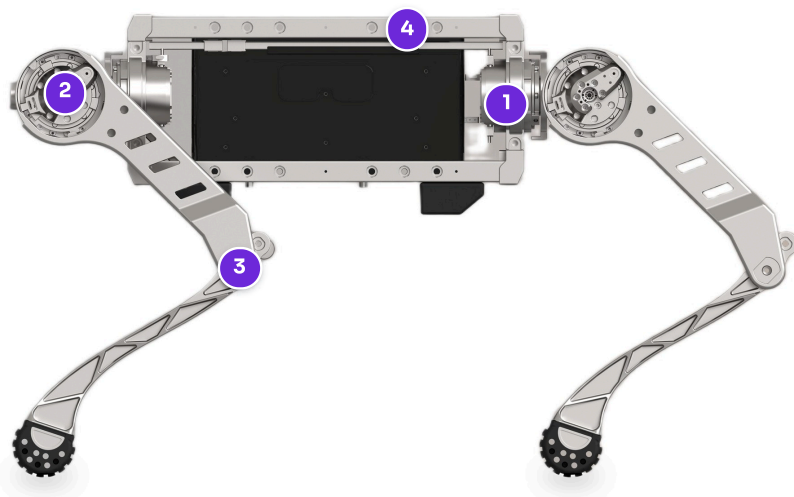
The long-runtime edition: more battery, torque and payload

- 418 Wh battery: about 4 h with no load
- Max joint torque about 50 N·m
- Max payload about 8 kg
- 17.5 kg with battery · 390 mm wide
- MirrorMe manufacturer warranty

Endurance with no load. Torque, payload and climbing height are approximate maximums. Everything else is the same on both editions: the modular build, the 12 joints and their ranges, the 0–4 m/s speed range and the software.

What is where on the Black Panther X

Both editions share one 12-joint body: three joints on each leg (side swing, hip and knee), with the same joint ranges, built of high-strength aluminium alloy and engineering plastics.



Side view. The 12 joints and their ranges are the same on both editions; the BPX-PRO is 20 mm wider.

1 Side-swing joint · -50° to 50°

Swings each leg out from the body and back.

2 Hip joint · -149° to 45°

Swings each leg forwards and backwards.

3 Knee joint · 21° to 147°

Bends the lower leg.

4 Frame and materials

High-strength aluminium alloy and engineering plastics, on both editions.

12 high-performance joints

Three per leg, each one independent: max torque about 33 N·m on the BPX and about 50 N·m on the BPX-PRO.

Open perception head, expansion dock

Open interfaces for third-party sensors and payloads: about 5 kg on the BPX, about 8 kg on the BPX-PRO.

Standing

L × W × H

BPX 660 × 370 × 480 mm

BPX-PRO 660 × 390 × 480 mm

Crouching

L × W × H

BPX 790 × 370 × 190 mm

BPX-PRO 790 × 390 × 190 mm

Weight

WITH BATTERY

BPX 15.1 kg

BPX-PRO 17.5 kg



Over 200 functional components

MODULAR BUILD · BOTH EDITIONS

From the joints and the frame to the shells, the Black Panther X is made of separate modules that can be detached, replaced and upgraded. Standardised modules with unified interfaces let a beginner complete the whole assembly, from separate parts to the finished robot, without special tools, following MirrorMe's assembly manual and drawings.

Kit or pre-assembled

MirrorMe offers the Black Panther X as a DIY kit or pre-assembled. Which version ships is confirmed with your quotation.

In the box

The kit: all the components needed to build the robot dog. The full packing list of your edition is confirmed with your quotation.

SPECIFICATIONS

The two editions side by side

Battery, joint torque and payload set the two editions apart; weight and width follow from them.

Black Panther X		Black Panther X Pro	
BPX · 167 Wh · about 1.5 h per charge		BPX-PRO · 418 Wh · about 4 h per charge	
POWER AND RUNTIME			
Battery	167 Wh	418 Wh	
Endurance (no load)	1.5 h	4 h	
Nominal voltage	28.8 V		
BODY			
Standing (L × W × H)	660 × 370 × 480 mm	660 × 390 × 480 mm	
Crouching (L × W × H)	790 × 370 × 190 mm	790 × 390 × 190 mm	
Weight, with battery	15.1 kg	17.5 kg	
Material	High-strength aluminium alloy and engineering plastics		
MOTION			
Max joint torque	About 33 N·m	About 50 N·m	
Max payload	About 5 kg	About 8 kg	
Speed	0–4 m/s		
Max climbing height	About 20 cm		
Max climbing angle	30°		
Degrees of freedom	12: side swing, hip and knee on each leg		
Joint ranges	Side swing –50° to 50° · hip –149° to 45° · knee 21° to 147°		
BUILD AND SOFTWARE, SHARED BY BOTH			
Modules	Over 200 functional components: 12 independent joints, open perception head, expansion dock		
Assembly	Standardised modules and unified interfaces, no special tools · DIY kit or pre-assembled		
Programming	C++ and Python SDK · visual programming (Mind+ Python mode) · app control		
Models and training	URDF, MuJoCo and USD models for each edition · reinforcement learning in Isaac Lab		
Open design	Open interfaces, shells (3D files) and code · third-party sensors and payloads		
Control	Remote-controlled base; autonomy with added sensors and an external computer		

Sources: MirrorMe's Black Panther X product page and BPX / BPX-PRO specification table, resource centre and documentation pages on [mirrormetech.com](https://www.mirrormetech.com), and MirrorMe's Black Panther X FAQ; October 2026. All figures are MirrorMe's; endurance with no load.

Where the two editions differ

EACH PANEL ON ITS OWN SCALE, FROM ZERO



Choosing an edition

SAME BUILD, DIFFERENT HEADROOM

Black Panther X (BPX) for

- Builds, lessons and first projects
- About 1.5 h per charge; the lighter robot at 15.1 kg
- Payloads up to about 5 kg

Black Panther X Pro (BPX-PRO) for

- Long lab sessions and full days of lessons
- About 4 h per charge and about 50 N·m joints
- Sensors, computers and payloads up to about 8 kg

Open interfaces, shells and code

Both editions are open platforms for secondary development. Interfaces, terminals and code are open, gaits and control logic can be your own, and MirrorMe publishes an SDK, robot models, a visual programming tool and a reinforcement-learning framework for the Black Panther X.

From first build to research

ONE ROBOT, FIVE STAGES

1

Build

From modules, without special tools, or ordered pre-assembled.

2

Drive

Control it from the app and customise how it is controlled.

3

Program

Visual programming for first lessons, then the C++ and Python SDK.

4

Train

Gaits and motions with reinforcement learning in Isaac Lab.

5

Expand

Sensors, a computer and payloads for your own autonomy project.

What is open

BLACK PANTHER X AND BLACK PANTHER X PRO

C++ and Python SDK

For physical robot control, telemetry and research: APIs for state queries, motion control and 12-DoF joint control.

Visual programming

A programming tool and extension builder for the Mind+ Python mode, on 64-bit Windows 10 and 11, for teaching and demonstrations.

App control

Drive the robot from the app and customise how it is controlled.

Robot models

MirrorMe's model data for the BPX and for the BPX-PRO, in URDF, MuJoCo and USD formats.

Reinforcement learning

An open training framework built as an Isaac Lab external project, with manager-based environments and PPO policies trained through RSL-RL.

Your own gaits

Customise gaits and control logic, or train your own gaits and motions with reinforcement learning.

Printable shells

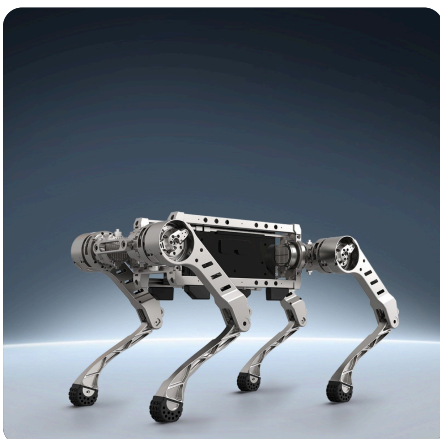
MirrorMe provides the shell 3D files: print them, modify them or design your own.

Sensors and payloads

Third-party sensors, cameras and payloads fit the open perception head and the expansion dock.

Autonomy

The base robot is remote-controlled. Add a camera or LiDAR and an external computer such as an NVIDIA Jetson Orin or a Raspberry Pi to build autonomous behaviour.



Manuals and resources

MirrorMe keeps the Black Panther X documentation online and updates it there:

- The assembly manual, with the assembly guide drawings
- The user manual: basic operation and daily use
- The resource centre: SDK links on GitHub, the visual programming tool, the BPX and BPX-PRO models and the reinforcement-learning framework

Questions while you build or program? Technical support for both editions is coordinated with the manufacturer's service network.

HIGHLIGHTS

Built from modules, made to move



Agile on four legs

Speeds up to 4 m/s, about 20 cm climbs and 30° slopes on both editions, from 12 independent high-performance joints.



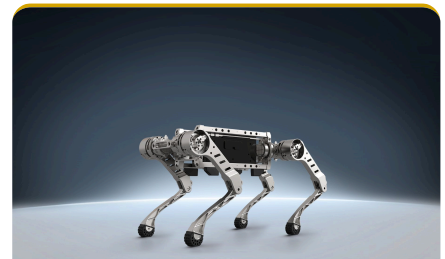
Every part a module

Joints, frame parts, links and shells are separate modules that can be detached, replaced or upgraded.



Shells you can print

MirrorMe provides the shell 3D files, so the shells can be printed, modified or redesigned.



Room for your payload

Third-party sensors, cameras and payloads: up to about 5 kg on the BPX and about 8 kg on the BPX-PRO.

From the classroom to the research lab

WHERE IT WORKS

Technology education

BUILD · DRIVE · PROGRAM

Students assemble a real robot dog from its modules, drive it from the app and program it, from visual programming to the SDK.

University research

LOCOMOTION · REINFORCEMENT LEARNING

Locomotion and learning experiments on a 12-DoF quadruped, with MirrorMe's URDF, MuJoCo and USD models and an Isaac Lab training framework.

Robotics development

C++ · PYTHON

Your own gaits and control logic through the SDK, with state queries, motion control and joint-level control.

Autonomy projects

SENSORS · ON-BOARD COMPUTER

Add a camera or LiDAR and a computer such as an NVIDIA Jetson Orin or a Raspberry Pi to build autonomous behaviour on the base.

Makers and design

3D-PRINTED SHELLS

Print, modify and redesign the shells from MirrorMe's 3D files, and fit your own payloads to the expansion dock.

Shows and demonstrations

SPEED · AGILITY

Speeds up to 4 m/s for stages, exhibitions and open days, and flips of up to 720° on the BPX.

Good to know: the base robot is remote-controlled, and autonomy is a project you build on it with added sensors and a computer. Endurance figures are with no load; payload and fast running shorten them.

NEXT STEP

Order your Black Panther X

Tell us what the robot will do (teaching, research, development or shows), how long it has to run per charge and what you plan to mount on it. We will recommend the BPX or the BPX-PRO, confirm whether it ships as a kit or pre-assembled, and come back with a delivery estimate to your address and a formal quotation.

Request a quotation

Edition, kit or pre-assembled, and delivery are confirmed with your quotation. Robotix Market ships worldwide.

Web · robotixmarket.com
Email · info@robotixmarket.com

SCAN OR CLICK AN EDITION FOR ITS PRODUCT PAGE



Black Panther X
BPX



Black Panther X Pro
BPX-PRO

Sourced new

Supplied new through established distribution channels.

Manufacturer warranty

Every robot ships with MirrorMe's manufacturer warranty.

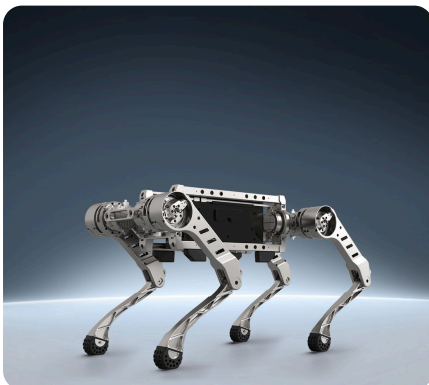
Support

Technical support is coordinated with the manufacturer's service network.

Classroom sets and project orders

Equipping a class or a lab? Tell us how many robots you need and the mix of editions, kits and pre-assembled units, and we will quote them together.

See it in action · Black Panther X film: youtube.com/watch?v=B9cgZFMSnMA



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