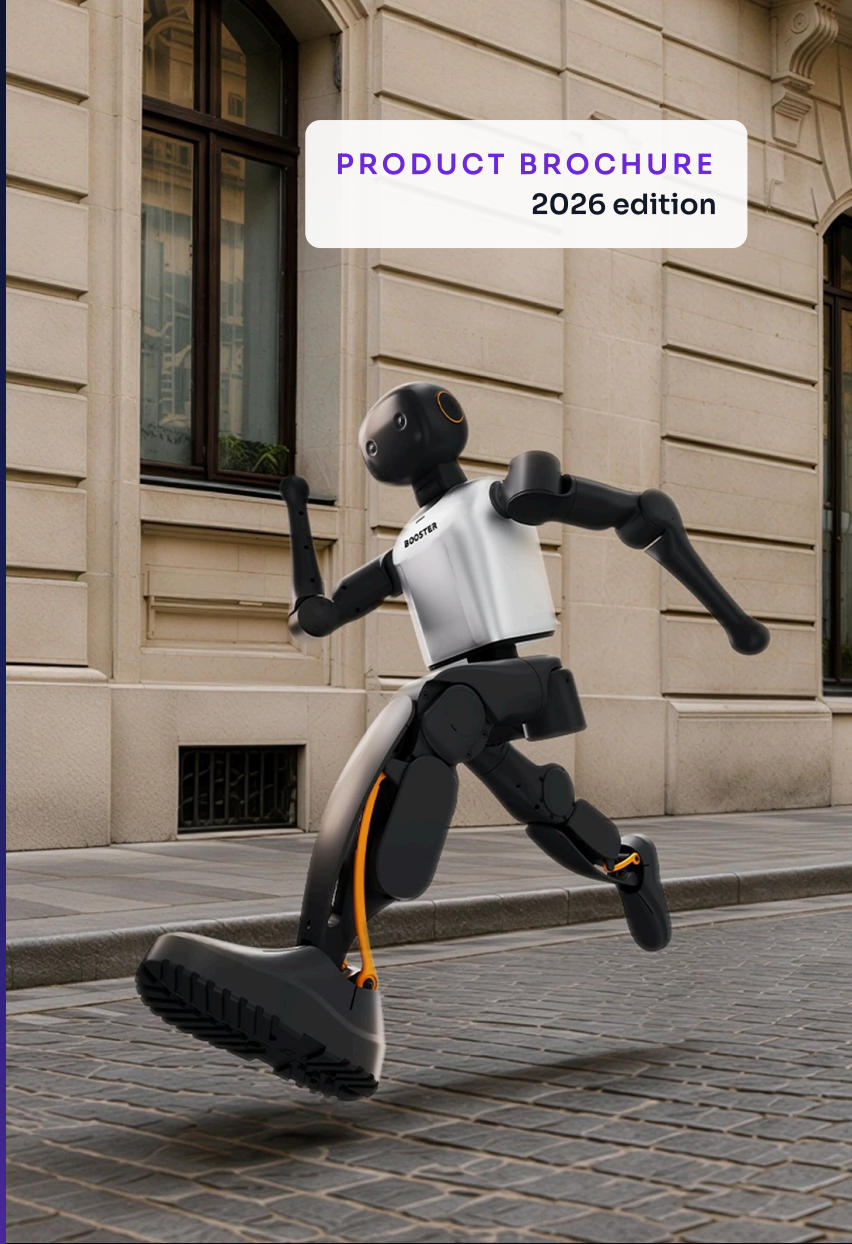


ROBOTIX MARKET

PRODUCT BROCHURE
2026 edition



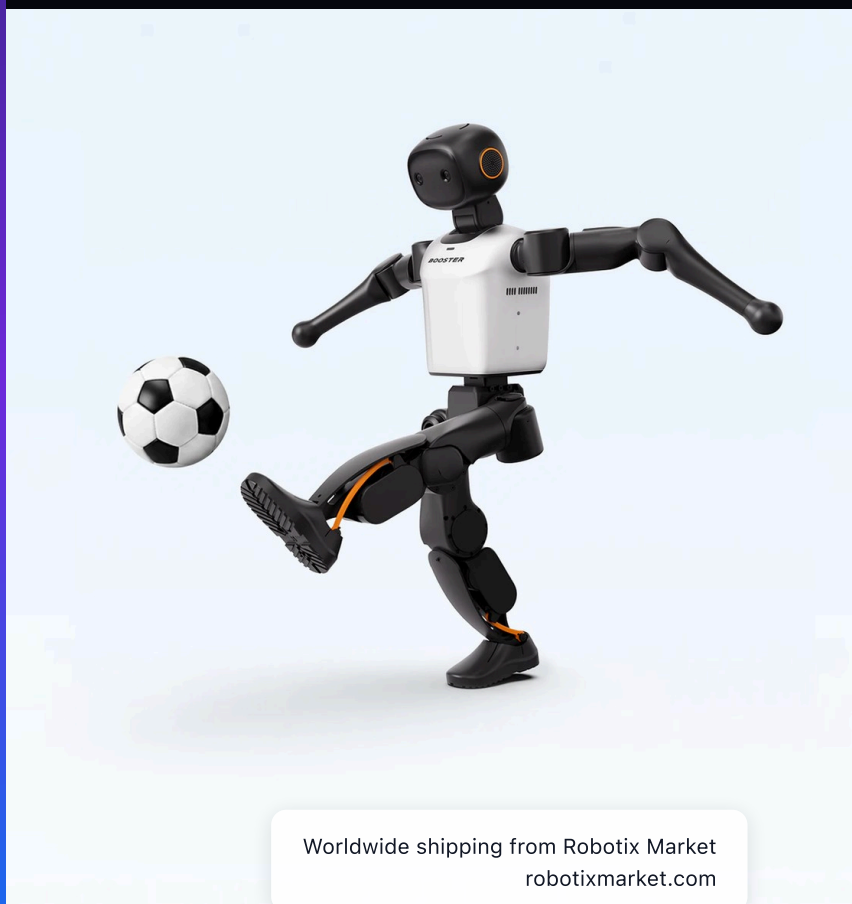
BOOSTER · HUMANOID ROBOTS ·
ROBOTIX MARKET

Booster Robotics

K1

**One compact humanoid
development platform in three
editions: Geek Edition,
Education and Professional**

About 95 cm and 19.5 kg, with 22 degrees of freedom, a stereo depth camera, six built-in Agents and open SDKs on every edition, and from 48 TOPS (dense) to 200 TOPS of on-board AI computing.



Worldwide shipping from Robotix Market
robotixmarket.com

A humanoid to learn, compete and build on

Booster K1 is Booster Robotics' introductory embodied development platform: a lightweight bipedal humanoid with 22 degrees of freedom for competitions, education, entertainment and the lab. All three editions share the same body, sensors, interfaces and software, and every one is open to secondary development. They differ in the on-board computer, the battery and the packaging.

Compact, go anywhere

About 95 cm tall and 19.5 kg, with a built-in carrying handle on the back: quick to bring into the classroom, onto the competition field or into the lab.

Agile and steady

Walks forwards, backwards, sideways and in combined gaits at up to 2 m/s, turns at up to 1.5 rad/s, recovers its balance after a push and gets back up by itself after a fall.

Sees, hears and talks

A stereo depth camera, a 9-axis IMU, a microphone array and a speaker. Real-time conversation in Chinese or English and voice commands, with an internet connection.

Six Agents built in

Booster, Soccer, Hi Chat, Teach, Dance and Lion Dance run out of the box and switch from the app or the controller; the Agent library grows with system updates.

Open on every edition

Python and C++ SDKs, ROS 2 Humble on the robot, URDF and MJCF models, Isaac Lab, MuJoCo and Webots, and the Booster Studio IDE, on the Geek Edition, Education and Professional alike.

Three computers, one body

48 TOPS (dense) on the Geek Edition, 117 TOPS on the Education's NVIDIA Jetson Orin NX 8GB, 200 TOPS on the Professional's Jetson AGX Orin 32GB.

~95 cm

HEIGHT

~19.5 kg

WEIGHT

22

DEGREES OF
FREEDOM

2 m/s

WALKING, UP TO

48–200

TOPS ON BOARD

Which K1?

ONE BODY, THREE EDITIONS

48 TOPS

DENSE · ARM PROCESSOR

K1 Geek Edition

The 48 TOPS edition with the 2 Ah battery

- High-performance ARM processor, 8 GB memory, 128 GB storage
- 2 Ah battery: about 20 min of walking
- Camera at 30 fps
- Booster's retail box
- Booster manufacturer warranty

117 TOPS

NVIDIA JETSON ORIN NX 8GB

K1 Education

The 117 TOPS Jetson edition with the 5 Ah battery

- 6-core Cortex-A78AE, 8 GB memory, 512 GB storage
- 5 Ah battery charged in the robot: about 1 h 10 min of walking
- Camera at 30 or 60 fps
- Booster manufacturer warranty

200 TOPS

NVIDIA JETSON AGX ORIN 32GB

K1 Professional

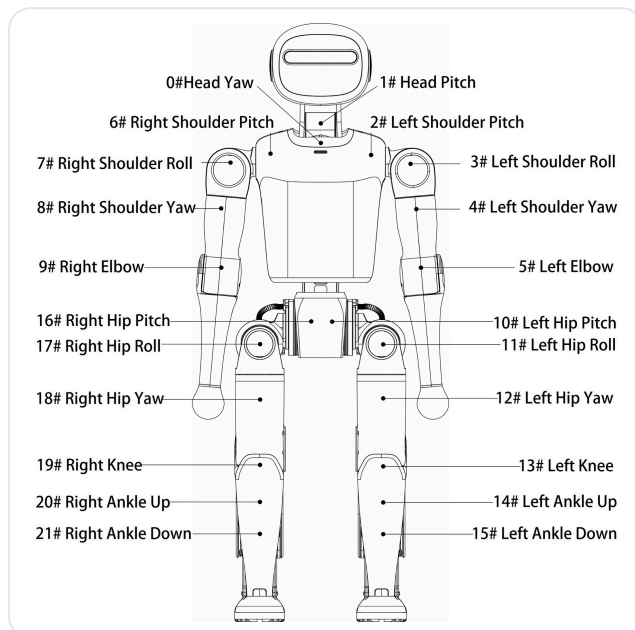
The 200 TOPS edition: the most computing of the three

- 8-core Cortex-A78AE, 32 GB memory, 512 GB storage
- 5 Ah battery charged in the robot: about 1 h 10 min of walking
- Camera at 30 or 60 fps
- Booster manufacturer warranty

Walking times at 1.1 m/s. The three editions look the same from the outside.

What is where on the K1

All three editions share one 22-joint body: 2 joints in the head, 4 in each arm and 6 in each leg, numbered 0 to 21 for developers.



Head • 2 DoF

Head yaw and head pitch. The stereo depth camera and the microphone array sit in the head.

Arms • 4 DoF each

Shoulder pitch, roll and yaw, and the elbow. The arms end without hands or grippers.

Legs • 6 DoF each

Hip pitch, roll and yaw, the knee, and the upper and lower ankle joints.

Torso

Holds the controller (the edition's on-board computer), the speaker and the battery; the carrying handle is on its back.

Joints, sensing, modes

Max peak torque 60 N·m, dual joint encoders and a 9-axis IMU. Modes: DAMP, PREP (stand), WALK, CUSTOM (your code) and PROTECT.

Back panel

EVERY K1



Power	Hold 3 s to switch on or off
WALK	Tap to walk, from a steady stand
STAND	Tap to stand up straight (PREP)
F1	Your own function; DAMP by default
Ethernet	Gigabit, for SSH from a computer

Handle and battery

EVERY K1



A carrying handle is built into the back: while the robot moves, touch it only by the handle. The battery sits in the torso: 2 Ah on the Geek Edition, 5 Ah on Education and Professional, charged in the robot and able to charge while in use.

In the box

The full packing list of your edition is confirmed with your quotation.

K1 Geek Edition

- The K1 robot
- Charger
- Remote controller
- Protective divider

In Booster's printed retail box on a foam tray, inside a shipping carton.

K1 Education and Professional

- The K1 robot and its battery
- Charger
- Remote controller
- Folding stool
- Package list

In a wheeled hard transport case with a security seal and a combination lock.

SPECIFICATIONS

The three K1 editions side by side

The on-board computer and the battery set the three editions apart; everything else is shared.

	K1 Geek Edition 48 TOPS · 2 Ah battery	K1 Education 117 TOPS · 5 Ah battery	K1 Professional 200 TOPS · 5 Ah battery
COMPUTING			
AI computing power	48 TOPS (dense)	117 TOPS	200 TOPS
Computer	High-performance ARM processor	NVIDIA Jetson Orin NX 8GB	NVIDIA Jetson AGX Orin 32GB
CPU	1 × 3.2 GHz, 4 × 2.8 GHz and 3 × 2.0 GHz cores	6-core Cortex-A78AE at 2 GHz	8-core Cortex-A78AE at 2.2 GHz
Memory · storage	8 GB · 128 GB	8 GB · 512 GB	32 GB · 512 GB
Camera frame rate	30 fps	30 fps by default, 60 fps selectable	
POWER			
Battery	2 Ah, with its own charger	5 Ah, charged in the robot; can charge while in use	
Walking time	About 20 min (walking at 1.1 m/s)	About 1 h 10 min (walking at 1.1 m/s)	
Charging time · cycle life	≤ 2 h · ≥ 500 cycles		
SHARED BY ALL THREE			
Body	About 95 cm standing, about 19.5 kg, built-in carrying handle		
Degrees of freedom	22: head 2, each arm 4, each leg 6 · no hands or grippers		
Joints	Max peak torque 60 N·m · dual encoders		
Motion	Walking up to 2 m/s, turning up to 1.5 rad/s · omnidirectional walking, balance recovery, gets up after a fall		
Sensors · audio	Stereo depth camera and microphone array in the head · 9-axis IMU · 1 speaker		
Buttons · indicator	Power button + WALK, STAND and F1 · 1 RGB LED		
Connectivity · ports	Wi-Fi 6 · Bluetooth 5.2 · Gigabit Ethernet · power-supply port		
Control	Booster handheld controller (an Xbox controller works too) · Booster App for iOS and Android · voice		
Built-in software	6 Agents: Booster, Soccer, Hi Chat, Teach, Dance, Lion Dance · large-model support · firmware updates		
Secondary development	Python SDK (boosteros) and C++ SDK · ROS 2 Humble on the robot · Ubuntu 22.04		
Simulation	URDF and MJCF models · Isaac Lab and Isaac Sim, MuJoCo, Webots · Booster Studio		
Safety	Soft and hard emergency stop · automatic protection on a fall · low-battery and joint-overheat voice alerts		
Certification · noise	CE / FCC · walking noise ≤ 70 dB		
Environment	−10 °C to 45 °C · 5–90 % humidity, non-condensing		

Sources: [booster.tech](#) (Booster K1 page and specification comparison), the K1 product manual, developer guide and release notes on [docs.booster.tech](#), Booster's GitHub repositories and Booster's K1 films; October 2026. All figures are Booster's; walking times measured at 1.1 m/s.

Getting started

IN SIX STEPS

- 1

Make room
An open, flat area of at least 2 m × 2 m, with no people or obstacles in the robot's range.
- 2

Insert the battery
Into the battery slot, indicator side up.
- 3

Power on
Hold the power button 3 s, then keep the robot still for about a minute until the prompt sound while the IMU initialises.
- 4

Switch on the controller
Hold Home for 5 s on Booster's controller, or use an Xbox controller in receiver mode.
- 5

Stand up
L2 + Start enters PREP; L2 + UP makes it stand up, and it goes into WALK by itself.
- 6

Walk
Left stick walks, right stick turns, the D-pad turns the head. Never lift the robot in WALK mode.

Agents, app and open development

Every K1 runs six built-in Agents, apps for the robot that switch from the Booster App or the controller, and every edition is open to secondary development with the same SDKs, models and tools.

Six Agents, ready out of the box

EVERY EDITION

Booster

Everyday actions such as waving, shaking hands and bowing, plus several fun dances.

Soccer

Tracks, chases, kicks and shoots the ball on its own, with goal celebrations.

Hi Chat

Real-time voice chat with switchable personas: a playful kid, a tutor or a pet. Needs internet.

Teach

Guide the robot's limbs by hand: it recognises the motion and plays it back.

Dance

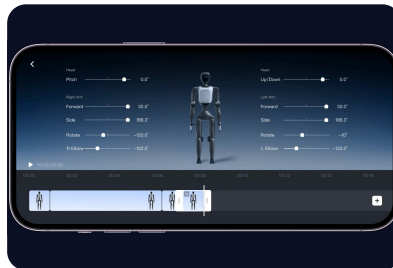
Chinese and Western folk, trendy and classic dances, and moves such as a roundhouse kick.

Lion Dance

The traditional Southern lion dance, for festival performances.



Booster's controller with the Agent screen



The Teach Agent in the Booster App

Controller, app and voice

Booster's handheld controller walks and turns the robot on its thumbsticks and turns the head on the D-pad; button combinations switch modes and Agents and trigger actions. The Booster App sets up the robot's network over Bluetooth, shows the live camera view and status, controls movement, actions and Agents, and updates the firmware. Custom Hi Chat personas are made in Booster's HICHAT HUB console, without code.

Developing on every K1

GEEK EDITION · EDUCATION · PROFESSIONAL

Python SDK

boosteros (Python 3.10 or later, firmware 1.7 or later): read images, IMU, joints and odometry; send mode, velocity, joint, action, trajectory and audio commands.

C++ SDK

Fast DDS middleware, compatible with ROS 2: high-level RPC clients for motion, vision and audio, and low-level topics for real-time joint control.

ROS 2 on board

ROS 2 Humble runs on the robot, on Ubuntu 22.04; odometry, IMU and motor data publish as standard ROS 2 messages.

Robot models

URDF and MJCF models of the 22-DoF K1 and a locomotion variant, with motion data, in Booster's open-source booster_assets.

Train and deploy

booster_train for reinforcement learning in Isaac Lab and Isaac Sim; booster_deploy runs the policies in MuJoCo, Webots and on the robot.

Booster Studio

One IDE from Agent development and simulation to robot-state debugging and one-click deployment; simulation and robot share one codebase.

Your own Agents

Booster's Agent development framework packages your skills as Agents that you can share with other users.

RoboCup demo

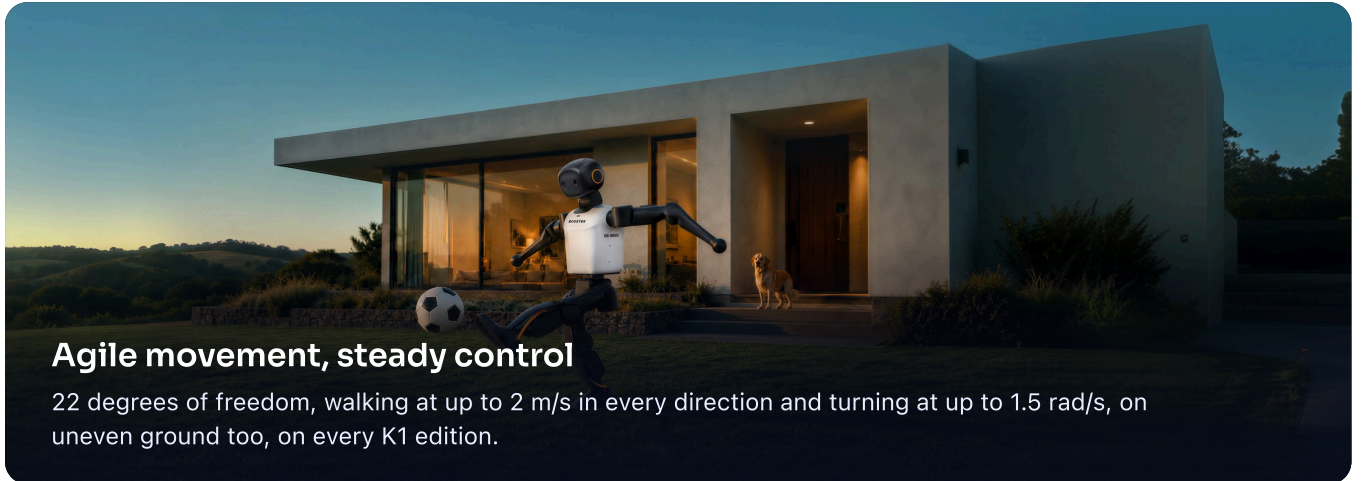
Booster's open-source 5 vs 5 soccer framework for the K1: vision, decision making, motion control and GameController communication.

CUSTOM mode

Hands every joint, the legs included, to your code. Use a hoist, and test in Webots or Isaac simulation first.

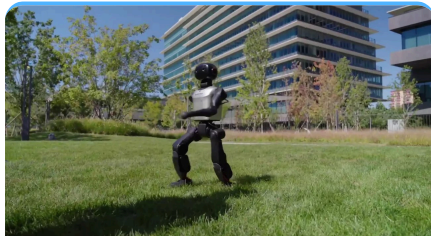
HIGHLIGHTS

Built to move, made to play



Agile movement, steady control

22 degrees of freedom, walking at up to 2 m/s in every direction and turning at up to 1.5 rad/s, on uneven ground too, on every K1 edition.



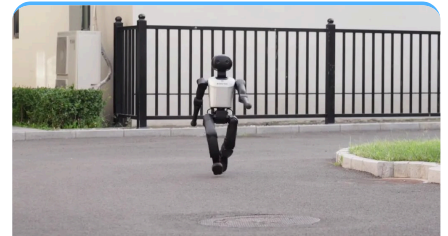
Takes a hit, gets back up

Pushed or knocked over, the K1 adjusts its posture to recover its balance, gets back up by itself and keeps moving.



At home on the pitch

The Soccer Agent tracks, chases and kicks the ball on its own; Booster's open-source RoboCup demo covers a full match workflow.



Protection built in

It stops active motion by itself on a fall or abnormal state; a soft emergency stop is one action away on the controller, app or back panel.

From the classroom to the competition field

WHERE IT WORKS

Robot soccer and competitions

SOCCER AGENT · ROBOCUP DEMO

Autonomous ball tracking, chasing and kicking, and Booster's open-source framework for 5 vs 5 humanoid soccer.

Education

AGENTS · PYTHON · C++

Start with the built-in Agents and the app, then program the same robot in Python or C++ as the course goes deeper.

Research and development

SDKS · ROS 2

Locomotion, perception and voice work on a full 22-DoF humanoid, with up to 200 TOPS on board on the Professional.

Sim-to-real

ISAAC LAB · MUJOCO · WEBOTS

Train in Isaac Lab, check the policy in MuJoCo or Webots, then deploy it to the robot from the same codebase.

Shows and events

DANCE · LION DANCE

Folk, trendy and classic dances, the Southern lion dance, gestures and celebrations for stages and exhibitions.

Interaction

HI CHAT · VOICE COMMANDS

Real-time conversation in Chinese or English, voice commands to walk, turn, wave or shake hands, and custom personas.

Safe use: keep people and obstacles out of the robot's range while it moves, touch it only by the handle during motion and never lift it while it walks. Full-body dances need a hard floor such as rubber, cement or tile; carpet raises the risk of a fall. Use a hoist when developing in CUSTOM mode, and lay the robot flat in DAMP mode for a software upgrade.

NEXT STEP

Order your K1

Tell us what the K1 will do (competitions, teaching, research or shows) and how much on-board computing and walking time you need. We will recommend the Geek Edition, Education or Professional, confirm it and come back with a delivery estimate to your address and a formal quotation.

Request a quotation

Edition 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



K1 Geek Edition



K1 Education



K1 Professional

Sourced new

Supplied new through established distribution channels.

Manufacturer warranty

Every robot ships with Booster's manufacturer warranty.

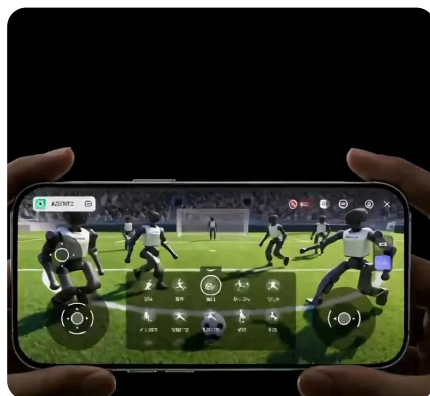
Support

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

Booster App and documentation

The K1 connects to the Booster App over Bluetooth, then over Wi-Fi or the robot's own hotspot, and to a development computer over Gigabit Ethernet and SSH. Booster's online documentation centre holds the product manual, the developer guide and the release notes, with video lessons from unboxing to packing.

See it in action · Meet Booster K1: youtube.com/watch?v=SiXZYblDvRw



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