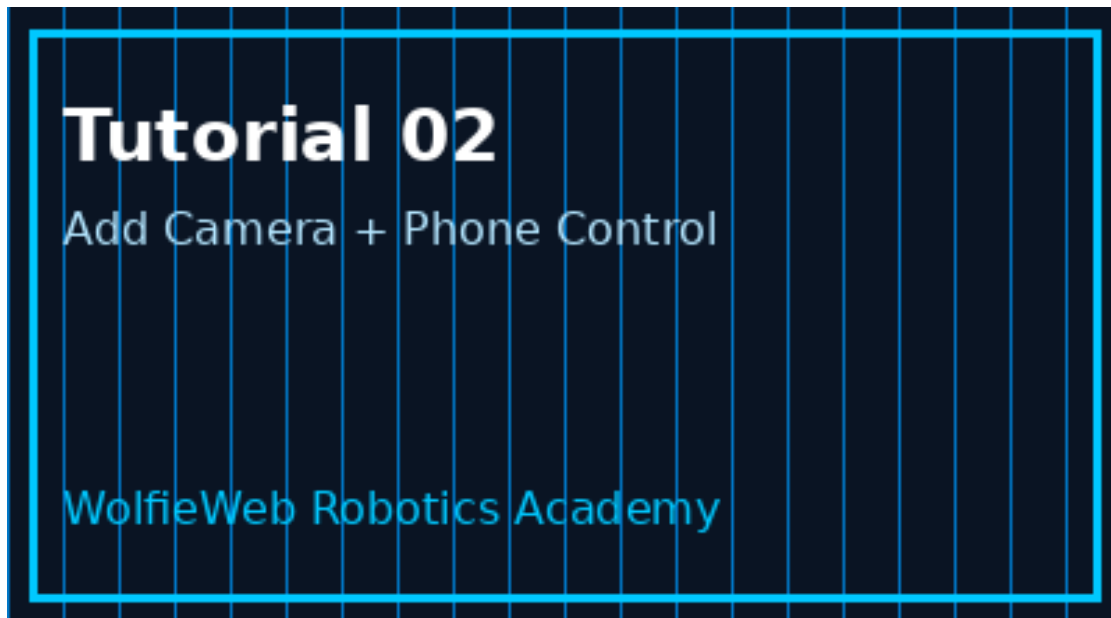


WolfieWeb Robotics Academy — Tutorial 02

Add Camera + Phone Control to your Raspberry Pi Robot Car (Pi 4 / Pi 5)



Prerequisite: Complete Tutorial 01 (robot drives normally).

Parts List (Add-ons)

Part	Notes / Example
Raspberry Pi Camera (v2 or v3)	Use official camera if possible; include ribbon cable.
Stable Pi power	Pi 4: 5V 3A USB-C. Pi 5: 5V 5A USB-C (recommended).
WiFi access	Home router or phone hotspot.
Optional: pan/tilt mount + 2 micro servos	if you want the camera to move.

Step 1 — Enable the Camera

1) Power off the Pi. 2) Connect the camera ribbon cable to the camera port. 3) Boot the Pi. 4) Run **sudo raspi-config** and enable the camera if the option is available. 5) Reboot.

Step 2 — Install dependencies

Open Terminal and run:

```
sudo apt update
sudo apt install -y python3-flask python3-picamera2
mkdir -p ~/wolfieweb_robot_control
```

Step 3 — Control + Streaming App (Starter)

Use a basic Flask web page with drive buttons that call your existing motor functions from Tutorial 01, plus a video stream using Picamera2.

Video Help (Search These)

- Raspberry Pi camera live stream picamera2
- Flask robot control Raspberry Pi
- Raspberry Pi robot car web control

Academy Hub: <https://www.wolfieweb.com/academy/>

Tutorial 01: <https://www.wolfieweb.com/tutorial01/>

Tutorial 02: <https://www.wolfieweb.com/tutorial02/>