

# Module 03

## Installing OpenClaw



From Zero to a Running AI Agent



# Navigation Chart

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By the end of this module, you will be able to:

1. **Run** the 🦀 OpenClaw installer inside WSL2
2. **Walk through** every step of the onboarding wizard
3. **Choose** an AI provider and configure your 🔑 API key
4. **Avoid** the token formatting gotcha that breaks most first installs
5. **Configure** the 🚤 gateway for secure local operation
6. **Install** the daemon so OpenClaw runs 24/7
7. **Verify** that everything is working
8. **Access** the dashboard and TUI (Terminal User Interface)



# Ship's Logbook

Term	Definition
 <b>Gateway</b>	The core OpenClaw process -- coordinates messages, AI models, and actions
<b>Onboarding wizard</b>	Interactive setup process after installation
 <b>API key</b>	Secret credential letting OpenClaw talk to your AI provider
<b>TUI</b>	Terminal User Interface -- text-based chat in your terminal
<b>Control UI</b>	Web-based dashboard for managing OpenClaw
<b>Provider</b>	Company whose AI model you use (Anthropic, OpenAI, Google, etc.)
<b>Daemon</b>	Background service that keeps the gateway running 24/7
<b>Token</b>	(1) Authentication credential, or (2) units of text the AI processes

# Before You Start

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Make sure you have completed Module 02:

- [ ] WSL2 with Ubuntu running
- [ ] systemd enabled
- [ ] Node.js 22+ installed
- [ ] Your  Ubuntu terminal open

**Everything in this module happens inside WSL2.**

Also decide which AI provider you want to use...

# AI Provider Comparison

Provider	Model	Monthly Cost	Strengths
Anthropic	Claude Opus 4.6	~\$200/mo	Most capable, best prompt injection resistance, recommended by creator
Anthropic	Claude Sonnet 4.5	~\$50-100/mo	Good balance of capability and cost
OpenAI	GPT-4 / GPT-5.2 Turbo	~\$20-200/mo	Permissive about OpenClaw use, strong coding
Google	Gemini 2.5 Flash	Free (20 req/day)	Free tier, great value
Kimi	K2.5	Very cheap	Excellent bang-for-buck
Minimax	M2.5	~\$10/mo	Extremely affordable, surprisingly capable

**Our choice:** Anthropic Claude. For a free start, Google Gemini 2.5 Flash.

# 🚩 Rough Waters: Claude Max/Pro Subscriptions

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Can you use your Claude Max or Pro subscription with 🦀 OpenClaw? No.

- Using Max/Pro with OpenClaw is **against Anthropic's Terms of Service**
- People have been **banned** -- losing access to **all Anthropic products**
- Workarounds exist online -- we do **not** recommend them

## The correct approach:

- Use the **Anthropic API** with a separate 🔑 API key (pay-as-you-go)
- Set a **spending limit** (start at \$20-50/month)
- Module 09 covers how to reduce costs by up to **90%**

# 🚩 Rough Waters: No Spending Limits

**Real story:** One user ran 8 agents on pay-per-use API without a spending limit. **\$800 burned in less than a week.**

Protection	How	Priority
Hard spending limit	Anthropic Console > Settings > Usage Limits > \$20-50/month	Non-negotiable
Start with one agent	Understand your token burn rate first	Critical
Monitor daily (first week)	Check <a href="https://console.anthropic.com/usage">console.anthropic.com/usage</a> every day	High
Use cheap models for routine	Haiku for heartbeats, Sonnet for simple tasks (Module 09)	High

# Step 1: Install 🦀 OpenClaw

In your 💧 Ubuntu terminal, run:

```
curl -fsSL https://openclaw.ai/install.sh | bash
```

## What this does:

- Downloads the install script from openclaw.ai
- `-fsSL` = fail silently, no progress bar, follow redirects
- Pipes the script into bash to execute

## Expected output:

```
Installing OpenClaw...
Checking Node.js version... v22.x.x
Installing OpenClaw packages...
Installation complete!
```

## Step 2: Launch the Onboarding Wizard

Run the wizard with the daemon flag:

```
openclaw onboard --install-daemon
```

This starts an **interactive wizard** that asks a series of questions. We will walk through **every single one**.

*Take your time. If you make a mistake, you can re-run the wizard or change settings with `openclaw config`.*

# Wizard Q1-Q2: 🛳 Gateway Type and Workspace

## Question 1: Gateway Type

```
? Gateway type:  
  > Local Gateway  
  Remote Gateway
```

Choose: Local Gateway -- OpenClaw runs on this machine.

## Question 2: Workspace Directory

```
? Workspace directory: (~/.openclaw)
```

Choose: Accept the default (press Enter)

This creates `~/.openclaw/` in your Linux file system -- fast and correct. Do not move it to the Windows side.

# Wizard Q3: AI Model Provider

? Select your AI provider:

- > Anthropic
- OpenAI
- Google
- Minimax
- Open Router
- Custom

**Choose: Anthropic** (or your preferred provider)

We will walk through the Anthropic setup. Other providers follow the same pattern -- you will be asked for a  API key.

# Wizard Q4: 🔑 API Key Setup

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This is where **most beginners get tripped up**.

## Getting your Anthropic API key:

1. Go to [console.anthropic.com](https://console.anthropic.com) in your Windows browser
2. Create an account if needed, verify email
3. **Settings > Billing** -- add a payment method
4. **Set a spending limit** (\$20-50/month to start)
5. **Settings > API Keys** -- click "Create Key"
6. Name it "OpenClaw" and click Create
7. **Copy the key immediately** -- you can only see it once

The key starts with `sk-ant-...` and is very long.

# 🚩 Rough Waters: The Token Formatting Gotcha

This is the **number one installation error** across all community guides.

## The Problem

Your clipboard can include hidden characters (line breaks, extra spaces) when copying from a browser. Pasting directly into the terminal **corrupts the key**.

## The Solution -- The Notepad Trick

1. Copy the  API key from the Anthropic console
2. **Do NOT paste into the terminal yet**
3. Open **Notepad** on Windows
4. Paste into Notepad ( **Ctrl + V** )
5. Verify: **one single line**, no breaks, starts with **sk-ant-**
6. Select all ( **Ctrl + A** ), copy ( **Ctrl + C** )

# Wizard Q5-Q6: Model and Port

## Question 5: Model Selection

```
? Select model:  
> claude-opus-4-6  
  claude-sonnet-4-5  
  claude-haiku-4-5
```

Choose: **claude-opus-4-6** -- most capable, strongest prompt injection resistance.

*In Module 09, you will configure cheaper models for routine tasks and keep Opus for important interactions.*

## Question 6: Gateway Port

```
? Gateway port: (18789)
```

# Wizard Q7: 🛳 Gateway Bind

? Gateway bind:

- > Loopback
- LAN
- Tailscale
- Custom
- Auto

Choose: **Loopback** (most secure)

Option	Who Can Connect	When to Use
Loopback	Only this computer	Default -- most secure
LAN	Any device on your WiFi	Access from another local computer
Tailscale	Devices on your Tailscale network	Secure remote access
Custom	Whatever IP you specify	Advanced users only
Auto	Automatic detection	May be less secure -- avoid

# Wizard Q8-Q10: Tailscale, Token, Channels

## Question 8: Tailscale Exposure

? Tailscale exposure: (Off)

Choose: **Off** -- enable later when security is fully configured.

## Question 9: Gateway Token

? Gateway token: (leave blank to auto-generate)

Choose: **Leave blank** -- auto-generates a secure random token. **Save it when displayed.**

## Question 10: Chat Channels

? Configure chat channels?

> Skip for now

# Wizard Q11-Q14: Skills, Hooks, Service

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**Q11: Skills -- Skip all (covered in Module 07)**

**Q12: Hooks -- Enable `BOOT.md` and session  memory**

- `BOOT.md` runs on every gateway startup; **session memory** saves context between conversations

**Q13: Service Runtime -- Choose Node.js (only option)**

**Q14: Install as Background Service**

? Install gateway as background service? (Y/n)

**Choose: Y -- makes the  gateway start on boot and run 24/7.**

# Step 3: Onboarding Complete

The wizard finishes with output like this:

```
Gateway configured
AI provider connected (Anthropic - claude-opus-4-6)
Daemon installed (systemd service)
Gateway started
```

```
Dashboard:      http://127.0.0.1:18789/
Gateway Token: abc123xyz... (save this!)
```

```
To open the TUI: openclaw tui
To check status: openclaw status
To view logs:    openclaw service logs
```

**Save your gateway token immediately.**

Store it in a password manager, a secure note, or a safe text file. You need it for dashboard access.

# Immediately After Onboarding: Install QMD

Before doing anything else, install **QMD** -- an on-device search engine for your agent's 🧠 memory files:

```
openclaw skills install qmd  
openclaw service restart
```

## Why this matters:

- Without QMD, your agent re-reads files every time it needs information (wastes tokens)
- With QMD, your agent can search indexed files instantly
- Saves money from day one by avoiding redundant file reads
- Takes 30 seconds to install

*Install this before your first real conversation. You will thank yourself later.*

# Step 4: Verify the Installation

## Check 🛥 gateway status

```
openclaw status          # Look for: Gateway Status: Running
```

## Check gateway health

```
openclaw doctor          # All critical checks should pass
```

Run `openclaw doctor fix` if any checks fail.

## Run your first security audit

```
openclaw security audit --deep --fix
```

Fixes file permissions (700 for dirs, 600 for files).

# Step 5: Access the Dashboard

1. Open your **Windows** web browser
2. Go to `http://127.0.0.1:18789/`
3. Enter your  **gateway token**
4. You are in!

## Dashboard vs. TUI

Interface	What It Is	Best For
<b>Control UI</b> (Dashboard)	Web page at localhost:18789	Configuration, monitoring, logs
<b>TUI</b> (Terminal UI)	Text chat in your terminal	Talking to your agent, running commands

Most day-to-day interaction happens in the **TUI**. The dashboard is for **management**.

## Step 6: Your First Chat

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```
openclaw tui
```

A full-screen terminal interface opens. Type a simple greeting:

```
Hello! My name is [your name]. What's your name?
```

# Step 6: Your First Chat (continued)

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## What should happen:

- Your message appears in the chat
- After 1-5 seconds, the AI responds
- The token counter increments

If you get a response -- 🦀 OpenClaw is working!

*Do not have a full conversation yet. We will do that in Module 04. Type `/exit` or `Ctrl + C` to leave.*

# Step 7: Verify the Daemon

## Check the service status

```
openclaw service status
```

Look for: **Active: active (running)**

## Test terminal independence

1. **Close** your  Ubuntu terminal completely
2. Wait 10 seconds
3. Open your browser to <http://127.0.0.1:18789/>
4. Dashboard should **still load**

## Useful service commands

# 🚩 Damage Control

Problem	Fix
openclaw: command not found	Run <code>source ~/.bashrc</code> or reopen terminal
"API key invalid"	Use the <b>Notepad trick</b> -- hidden line breaks are the cause
"Port already in use"	<code>openclaw config gateway port 18790</code> then restart
"Connection refused" in browser	Check <code>openclaw service status</code> ; use <code>http://</code> not <code>https://</code>
Daemon does not start on boot	Verify systemd: <code>systemctl is-system-running</code>
AI responses very slow (30s+)	Check <code>status.anthropic.com</code> ; try Sonnet 4.5 temporarily
"Insufficient credits"	Check billing at <code>console.anthropic.com</code>
Token counter climbs fast	Use <code>/compact</code> to compress history; start new chats with <code>/new</code>

# Hands on Deck

Complete this checklist before proceeding to Module 04:

- [ ] `openclaw --version` shows a version number
- [ ] `openclaw status` shows "Running"
- [ ] `openclaw doctor` passes all critical checks
- [ ] `openclaw security audit --deep` has no critical issues
- [ ] `~/.openclaw/` is mode 700
- [ ] Dashboard loads at `http://127.0.0.1:18789/`
- [ ] TUI opens with `openclaw tui`
- [ ] AI responds to a test message
- [ ]  Gateway stays running after closing the terminal
- [ ] Gateway token saved somewhere secure



# Treasure Chest

1. Installation is one command -- but the onboarding wizard is where the real setup happens
2. The token formatting gotcha is real -- always paste API keys into Notepad first
3. Start with loopback binding -- most secure, only this machine can connect
4. Set API spending limits before chatting -- tokens burn faster than you expect
5. The daemon keeps the gateway running 24/7 -- even after closing the terminal
6. Two interfaces: TUI for chatting, Dashboard for managing
7. Run the security audit after installation -- catches permission issues
8. Save your gateway token -- retrieve with `openclaw config gateway token`
9. Everything stays local except API calls -- your data never leaves your machine

# Next Port of Call

## Module 04: Your First Conversation

*Your agent is awake. Time to introduce yourself, do a "brain dump" of your life and goals, and learn the essential commands for daily use.*