

SNAP LAUNCHER SETUP GUIDE (WINDOWS)

1) WHAT THIS PACKAGE CONTAINS

- * snap_launcher.py: always-on listener for double-snap trigger
- * snap_launcher_config.json: behavior and app launch settings
- * snap_ml.py: ML feature extraction + inference
- * record_snap_samples.py: record training samples from microphone
- * train_snap_model.py: retrain model for your room/microphone
- * models/snap_classifier.joblib: trained model file
- * install_snap_launcher.ps1: one-click setup + autostart
- * start_snap_listener.bat: starts listener in background
- * stop_snap_listener.bat: stops listener
- * SETUP_GUIDE.pdf: this guide in PDF format

2) QUICK INSTALL ON A NEW PC

1. Extract the ZIP to any folder, for example:

C:\SnapLauncher

2. Open PowerShell in that folder.

3. Run:

```
powershell -ExecutionPolicy Bypass -File .\install_snap_launcher.ps1
```

4. Start listener now:

```
.\start_snap_listener.bat
```

After install, autostart is enabled. The listener will start at Windows login for the current user.

3) HOW TO TEST

1. Snap fingers twice in a row (within the configured snap window).
2. Expected result: YouTube + Claude + Codex + Antigravity launch.
3. Check status:

```
Get-Content .\snap_launcher_status.json
```

4. Check logs:

```
Get-Content .\snap_launcher.log -Tail 80
```

4) CORE CONFIG OPTIONS

Open snap_launcher_config.json and tune:

- * required_snap_count: keep this at 2 for double-snap
- * double_snap_window_seconds: how quickly the two snaps must happen
- * model_probability_threshold: higher = stricter, lower = easier trigger
- * minimum_launch_interval_seconds: prevents duplicate launches
- * cooldown_after_launch_seconds: pause after launch before listening again

5) IF SNAPS ARE MISSED

- * Lower `model_probability_threshold` by small steps (example: 0.70 to 0.66)
- * Increase `double_snap_window_seconds` (example: 6.0 to 7.0)
- * Train with your microphone and room (recommended)

6) IF FALSE TRIGGERS HAPPEN (SNEEZE/MUSIC/SPEECH)

- * Raise `model_probability_threshold` by small steps (example: 0.70 to 0.76)
- * Reduce `double_snap_window_seconds`
- * Increase `minimum_launch_interval_seconds`
- * Retrain with hard negatives (speech, music, keyboard, sneezes, claps)

7) RETRAIN MODEL FOR BEST RELIABILITY

Record positives:

```
python .\record_snap_samples.py --label snap --count 40
```

Record negatives:

```
python .\record_snap_samples.py --label not_snap --count 80
```

Train:

```
python .\train_snap_model.py
```

Restart listener:

```
.\stop_snap_listener.bat
```

```
.\start_snap_listener.bat
```

8) APP LAUNCH TROUBLESHOOTING

- * If a specific app does not open, set its path in `snap_launcher_config.json`.
- * Keep `app_id` if available for Microsoft Store style apps.
- * If browser choice matters for YouTube autoplay, set `youtube_browser_path`.

9) AUTOSTART DETAILS

Installer creates startup shortcut:

```
%APPDATA%\Microsoft\Windows\Start Menu\Programs\Startup\Snap Listener.lnk
```

Disable autostart by deleting that shortcut.

10) AI HANDOFF INSTRUCTIONS

If someone gives this folder to another AI/coder, ask them to:

1. Run `install_snap_launcher.ps1`

2. Validate snap_launcher_config.json app paths and app IDs
3. Test with live snaps and inspect snap_launcher.log
4. Retrain with local data if needed

This is the fastest way to make behavior stable on a new machine.