Làm máy Pi 3

⟳ Status	Việc cần làm ngay

1. Link OS: https://drive.google.com/drive/folders/1xpYca5w_XCePnwziQUeTDM9HBRwxD2jd?usp=drive_link

2. Github phần mềm: https://github.com/thanhtantran/paroli-on-orangepi

3. Model: https://huggingface.co/thanhtantran/piper-paroli-rknn-model

4. Link sản phẩm: https://orangepi.vn/shop/orange-pi-3b-chip-rk3566-wifi5-bt5-ram-4gb

5. Mã giảm giá: miai_orangepi3b, giảm 5% trên giá bán lẻ 1300k

6.

1	Install OS	Download from GDrive. Etcher (or other) write to SD Plus SD, keyboard and monitor → start. Insert some photo
2	Visit github link	https://github.com/thanhtantran/paroli-on-orangepi3
3	Instal rknpu lib,	git clone https://github.com/Pelochus/ezrknn-toolkit2 cd ezrknn-toolkit2 sudo bash install.sh
4	install git-lfs to clone models (which is large size)	(. /etc/lsb-release && curl -s https://packagecloud.io/install/repositories/github/git-lfs/script.deb.sh | sudo env os=ubuntu dist="${DISTRIB_CODENAME}" bash) sudo apt-get install git-lfs
5	Install libs	sudo apt install -y cmake build-essential sudo apt install -y libxtensor-dev nlohmann-json3-dev libspdlog-dev libopus-dev libfmt-dev libjsoncpp-dev sudo apt install -y espeak-ng libespeak-ng-dev libogg-dev libsoxr-dev
6	Install drogon	cd ~ sudo apt install libssl-dev pkg-config libbotan-2-dev libc-ares-dev uuid-dev doxygen sudo apt-get install zlib1g-dev git clone https://github.com/drogonframework/drogon cd drogon git submodule update --init --recursive mkdir build cd build sudo cmake ..

		sudo make -j4 sudo make install
7	Install libopusenc	cd ~ wget https://archive.mozilla.org/pub/opus/libopusenc-0.2.1.tar.gz tar -xvzf libopusenc-0.2.1.tar.gz cd libopusenc-0.2.1 ./configure make -j4 sudo make install sudo apt-get install pulseaudio
8	Download model	cd ~ git clone https://huggingface.co/thanhtantran/piper-paroli-rknn-model
9	Clone runtime ONNX	cd ~ wget https://github.com/microsoft/onnxruntime/releases/download/v1.14.1/onnxruntime-linux-aarch64-1.14.1.tgz tar -xvf onnxruntime-linux-aarch64-1.14.1.tgz
10	Clone piper-phoemize	cd ~ wget https://github.com/rhasspy/piper-phonemize/releases/download/2023.11.14-4/piper-phonemize_linux_aarch64.tar.gz tar -xvf piper-phonemize_linux_aarch64.tar.gz
11	build the app	git clone https://github.com/thanhtantran/paroli-on-orangepi cd paroli-on-orangepi sudo apt-get update sudo apt-get install libonnxruntime-dev mkdir build && cd build cmake .. -DUSE_RKNN=ON -DORT_ROOT=/root/onnxruntime-linux-aarch64-1.14.1 -DPIPER_PHONEMIZE_ROOT=/root/piper_phonemize -DCMAKE_BUILD_TYPE=Release make -j4
12	Copy	cp -r ~/piper_phonemize/share/espeak-ng-data/ .
13	Test	./paroli-cli --encoder /root/piper-paroli-rknn-model/encoder_vi.onnx --decoder /root/piper-paroli-rknn-model/decoder_vi-3568.rknn -c ~/piper-paroli-rknn-model/config-vi.json
14	API	./paroli-server --encoder /root/piper-paroli-rknn-model/encoder_vi.onnx --decoder /root/piper-paroli-rknn-model/decoder_vi-3568.rknn -c ~/piper-paroli-rknn-model/config-vi.json --ip 0.0.0.0 --port 8848
15	Test API	curl http://localhost:8848/api/v1/synthesise -X POST -H 'Content-Type: application/json' -d '{"text": "To be or not to be, that is the question"}' > test.opus