

Reflash the robot

Created by	Kangni Liu
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Status	Fixed
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Type	Issue

Comments by Saha

- We're using a Raspberry Pi Compute Module 4, not Raspberry Pi 4:
<https://www.makeuseof.com/raspberry-pi-4-vs-raspberry-pi-compute-module-4-key-differences/>
- So all of the online instructions we tried so far ran into the wall. They were meant for RPi 4, while the CM4 (Compute Module 4) is very different
- The error message on the terminal and instructions for CM4 both say that the right method for flashing EEPROM is rpiboot, i.e., this repo: `git clone --depth=1`
<https://github.com/raspberrypi/usbboot>

Current list of images:

1. Original (Rapsi_backup.img.gz)
2. Unitree (ghost.img)

3. Slack guy's image (ghost_slackguy.img)

Hardware integrity test

- With #2, the wifi driver disappeared from `lsusb` inside the RPi CM4
- We made no changes to the hardware, but to eliminate any doubts about the hardware integrity, we try to replicate our baseline with #1
- At the time of flashing, #1 at least broadcasted the wifi network (although wasn't accessible) and the robot stood and walked around, but collapsed after ~2 minutes (whenever the face LED lights up)
- *Prediction:* #1 will broadcast wifi and hardware integrity will be established
- *Result:* We flashed #1, inserted the SD card, got a new error: **SD card not detected**
- We're now flashing #2 back, and we will first try to pin down on the SD card-related hardware/software issues
- *Prediction:* #2 will work as it did before, indicating that #1 image has some problem
- *Result:* Hypothesis proven
- We have flashed #3 on the SD card
- *Prediction:* This might help to establish hardware integrity
- *Result:* Go1... hotspot still not visible. But it can connect to phone Wi-Fi hotspot and browse the internet

Aside observations

- We started the robot without the SD card in RPi CM4. Ports 10, 13, 14, and 15 were all accessible via ssh. The face LEDs also lit up. The robot did not stand and port 161 wasn't active. So that functionality is encoded inside the RPI OS in the SD card.

To Do

- Try the image from slack (29 GB)