

In this project, you will construct either the AIY Voice Kit V1 (for the Pi-4) or the AIY Voice Kit V2 (for the Pi-Zero).

Follow the **ONLINE instructions** to assemble and code the device to respond to voice commands and questions by linking to Google Assistant and playing its responses back through the speaker.

Voice Kit **V1** Project Guide: <https://aiyprojects.withgoogle.com/voice-v1> (Do NOT use the printed manual!)

Voice Kit **V2** Project Guide: <https://aiyprojects.withgoogle.com/voice>

IMPORTANT: During the first boot with the new SD card you **MUST** connect the monitor **before** you start the Pi and **can NOT** remove power or the HDMI cord at any time. Doing so will corrupt the SD card and require re-flashing of the OS image to the card!

IMPORTANT: If the auto check fails to find the soundcard, manually load the soundcard driver by opening a new terminal window and executing this command:

```
sudo dtoverlay googlevoicehat-soundcard
```

If you run into problems, try this **AIY Troubleshooting Guide**: <https://aiyprojects.withgoogle.com/help/#booting-the-voice-kit> or for the Pi-4 kit also try these Troubleshooting Tips: <https://aiyprojects.withgoogle.com/voice-v1/#assembly-guide--appendix>

Please upload the following files to the assignment dropbox. You can upload them one at a time, or zip (compress) them in a folder and upload the zipped folder.

1] Upload documentation of coding practice:

- Upload a Word Document in which you (1) identify the source of the code/commands/processes you used in this project, (2) explain any modifications you made to that code, and (3) give credit to any people who helped you. For example:
 - "I hand typed all terminal commands from the manual, but the one on page 17 caused an error. Holly suggested I replace xyz with abc, which worked. "
 - "I downloaded files from github because suggested code in manual did not work. I modified line 16 from xxx to yyy because I used different GPIO pins."
- If you MODIFIED/CUSTOMIZED code that was written by someone else, make sure to comment the code in the first line to credit the original author(s) or source. You must also comment the code wherever modifications or additions are made that explain what you changed and why. Upload the code file(s) to Schoology as documentation.
- If you WROTE ORIGINAL CODE beyond what was in the instructions, downloads, and/or pre-installed on the Pi, make sure to comment the code in the first line to credit yourself as the author, credit anyone who assisted you in writing it, and cite any sources you used as a reference. Upload the code file(s) to Schoology as documentation.

2] Upload .jpeg images of your assembled AIY Voice Kit, both outside and inside the box, to document how the physical computing components are connected.

3] Upload a video of yourself issuing verbal commands or asking questions of the device and hearing the Google Assistant's responses.

4] To earn full credit for the Conception & Design and/or Project Execution categories of the rubric, upload a Word Document explaining in detail:

- What **creative or innovative solutions** did you come up with to overcome obstacles during the project? How did you develop the solution? If you did not come up with the idea entirely on your own, be sure to reference your sources and/or give credit to anyone who assisted you and explain how YOU contributed to the solution.
- In what ways did this project demand **meaningful growth** in your **coding** skills? If you did not write your own code, how did you exceed the minimum requirements to challenge yourself?
- In what ways did this project demand **meaningful growth** in your **physical computing** skills? If the required build was easy, how did you exceed the minimum requirements to challenge yourself?