



beagleboard.org®

BeagleMind Prompts

Prompt
Type your prompt here
How to run edgeai models in BeagleBone AI-64
My beaglebone ai-64 is not booting. What should I do?
What is difference between BeagleBone AI-64 and beagley-ai?

Instead of adding a response. Please provide a Screenshot of it. (Aryan)
-> You can put your prompts in this table and I'll update the document with the chatbot responses

Prompt: My beaglebone ai-64 is not booting. What should I do?

Response:

RAG Chatbot (Beaglemind RAG System PoC)

My beaglebone ai-64 is not booting. What should I do?

Answer

To troubleshoot your BeagleBone AI-64 not booting, follow these steps:

- Power-down your board:** As stated in [getting-started.rst](#), power down your board and remove the SD card.
- Check the power supply:** Ensure you are using a 5V > 3A (15W) power supply, as recommended in [02-quick-start.rst](#).
- Verify the SD card:** If you are using an SD card, make sure it is inserted before providing power, as mentioned in [getting-started.rst](#).
- Update the software image:** If none of the above steps work, try updating to the latest software image using the instructions provided in [06-support.rst](#) and [getting-started.rst](#).

For more detailed troubleshooting and support, visit the [BeagleBoard.org forum](#) as mentioned in [06-support.rst](#).

Detected Question Types: general

Ask a question about the repository...

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Sources & References

Sources & References

Source 1

File: [02-quick-start.rst](#) (rst) Path: boards/beaglebone/ai/02-quick-start.rst Link [02-quick-start.rst](#) Language: rst Scores: Composite: 2.478 | Rerank: 5.555 | Original: 0.231 Contains: Quality: 0.83 Content:

BeagleBone* AI will boot. No need to enter any passwords.

Source 2

File: [02-quick-start.rst](#) (rst) Path: boards/beaglebone/ai/02-quick-start.rst Link [02-quick-start.rst](#) Language: rst Scores: Composite: 1.794 | Rerank: 3.826 | Original: 0.258 Contains: Quality: 0.83 Content:

BeagleBone* AI will boot. 19. Connect your PC's WiFi to SSID "BeagleBone-XXXX" where XXXX is

Source 3

File: [upgrade-beaglebone-ai-software.rst](#) (rst) Path: boards/beaglebone/ai/demos-and-tutorials/upgrade-beaglebone-ai-software.rst Link [upgrade-beaglebone-ai-software.rst](#) Language: rst Scores: Composite: 1.058 | Rerank: 1.983 | Original: 0.244 Contains: Quality: 0.83 Content:

Otherwise, visit /about/jkridner to contact me

Prompt: How to run edgeai models in BeagleBone AI-64

Response:

RAG Chatbot (Beaglemind RAG System PoC)

How to run edgeai models in BeagleBone AI-64

Answer

To run edgeai models in BeagleBone AI-64, you can follow these steps:

- Prepare the environment:** Make sure you have the BeagleBone AI-64 board set up and connected to a power source, network, and display. You can connect to the board remotely using SSH, as described in [getting_started.rst](#).
- Download models:** You can download pre-trained models from the [TI Edge AI Model Zoo](#) using the [download_models.sh](#) script, as described in [inference_models.rst](#).
- Run Python-based demo applications:** You can run Python-based demo applications using the [app_edgeai.py](#) script, as described in [running_simple_demos.rst](#). For example, to run an image classification demo, navigate to the [apps_python](#) directory and run the script with the [image_classification.yaml](#) configuration file.
- Run C++-based demo applications:** You can build and run C++-based demo applications using the `cmake` and `make` commands, as described in [running_simple_demos.rst](#).
- Use the edgeai-tidl-tools:** You can use the [edgeai-tidl-tools](#) to compile and run models, as described in [sdk_components.rst](#).

For more information on running edgeai models, you can refer to the following documents:

- [inference_models.rst](#)
- [running_simple_demos.rst](#)

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Sources & References

Sources & References

Source 1

File: [sdk_components.rst](#) (rst) Path: boards/beaglebone/ai-64/edge_ai_apps/sdk_components.rst Link [sdk_components.rst](#) Language: rst Scores: Composite: 2.878 | Rerank: 6.536 | Original: 0.196 Contains: Quality: 0.83 Content:

```
figure:.. /images/edgeai-sdk-components.png
:scale: 50
:align: center

BeagleBone* AI-64 Linux for Edge AI components

.. _ai_64_edgeai_applications:

Edge AI Applications
=====

The edge AI applications are designed for users to quickly evaluate various Deep Learning networks on TDA4 SoC. The user can run standalone examples and Jupyter notebook applications to evaluate inference models either from 'TI Edge AI Model Zoo <https://github.com/TexasInst or a custom network. Once a network is finalized for performance and accuracy it can also be easily integrated in a typical capture-inference-display usecase using example GStreamer based applications for rapid prototyping and deployment. ... _ai_64_edgeai_tidl_to:

edgeai-tidl-tools
-----
```

RAG Chatbot (Beaglemind RAG System PoC)

1. **Prepare the environment:** Make sure you have the BeagleBone AI-64 board set up and connected to a power source, network, and display. You can connect to the board remotely using SSH, as described in [getting_started.rst](#).

2. **Download models:** You can download pre-trained models from the [TI Edge AI Model Zoo](#) using the `download_models.sh` script, as described in [inference_models.rst](#).

3. **Run Python-based demo applications:** You can run Python-based demo applications using the `app_edgeai.py` script, as described in [running_simple_demos.rst](#). For example, to run an image classification demo, navigate to the `apps_python` directory and run the script with the `image_classification.yaml` configuration file.

4. **Run C++-based demo applications:** You can build and run C++-based demo applications using the `cmake` and `make` commands, as described in [running_simple_demos.rst](#).

5. **Use the edgeai-tidl-tools:** You can use the `edgeai-tidl-tools` to compile and run models, as described in [sdk_components.rst](#).

For more information on running edgeai models, you can refer to the following documents:

- [inference_models.rst](#)
- [running_simple_demos.rst](#)
- [sdk_components.rst](#)

Note: Make sure to follow the instructions carefully and refer to the relevant documents for more information on running edgeai models in BeagleBone AI-64.

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Sources & References

Source 1

File: [sdk_components.rst](#) (.rst) **Path:** [boards/beaglebone/ai-64/edge_ai_apps/sdk_components.rst](#)
Link: [sdk_components.rst](#) **Language:** rst **Scores:** Composite: 2.878 | Rerank: 6.536 | Original: 0.196
Contains: Quality: 0.83 **Content:**

```
figure: ../images/edgeai-sdk-components.png
:scale: 50
:align: center

BeagleBone® AI-64 Linux for Edge AI components

.. _ai_64_edgeai_applications:

Edge AI Applications
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The edge AI applications are designed for users to quickly evaluate various Deep Learning networks on TDA4 SoC. The user can run standalone examples and Jupyter notebook applications to evaluate inference models either from `TI Edge AI Model Zoo <https://github.com/TexasInst or a custom network. Once a network is finalized for performance and accuracy it can also be easily integrated in a typical capture-inference-display usecase using example GStreamer based applications for rapid prototyping and deployment. .. _ai_64_edgeai_tidl_tools

edgeai-tidl-tools
-----
```

Prompt: What is the difference between BeagleBone AI-64 and beagle-yai?

Response:

What is difference between BeagleBone AI-64 and beagle-yai?

Answer

The main differences between BeagleBone AI-64 and BeagleY-AI are:

- Processor:** BeagleBone AI-64 is based on a 64-bit Dual Arm Cortex-A72 processor ([getting_started.rst](#)), while BeagleY-AI is based on the Texas Instruments AM67A Arm-based vision processor with a quad-core 64-bit Arm Cortex-A53 CPU subsystem at 1.4GHz ([01-introduction.rst](#)).
- DSP and Accelerators:** BeagleY-AI features a Dual general-purpose C7x DSP with Matrix Multiply Accelerator (MMA) capable of 4 TOPS (trillion-operations per second) combined, while the documentation for BeagleBone AI-64 does not explicitly mention the presence of such DSPs or accelerators.
- GPU and Vision Accelerators:** BeagleY-AI has a 50 Gflop GPU and video and vision accelerators, whereas the specific details about the GPU and vision accelerators on BeagleBone AI-64 are not provided in the given context documents.
- Expansion and Compatibility:** Both boards support expansion through capes, but BeagleBone AI-64 is designed to provide compatibility with BeagleBone Black's expansion headers as much as possible ([01-introduction.rst](#)).
- Purpose and Target Audience:** BeagleBone AI-64 is intended for developing artificial intelligence (AI) and machine learning solutions, with a focus on the open-source community and early adopters

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Sources & References

Source 1

File: [getting_started.rst](#) (.rst) **Path:** [boards/beaglebone/ai-64/edge_ai_apps/getting_started.rst](#)
Link: [getting_started.rst](#) **Language:** rst **Scores:** Composite: 1.862 | Rerank: 3.999 | Original: 0.195
Contains: Code | Quality: 0.83 **Content:**

```
.. _ai_64_edgeai_hw_requirements_eaik:

BeagleBone® AI-64
-----

BeagleBone® AI-64 brings a complete system for developing artificial intelligence (AI) and machine learning solutions with the convenience and expandability of the BeagleBone® platform and the peripherals on board to get started right away learning and building applications. With locally hosted, ready-to-use, open-source focused tool chains and development environment, a simple web browser, power source and network connection are all that need to be added to start building performance-optimized embedded applications. Industry-leading expansion possibilities are enabled through familiar BeagleBone® cape headers, with hundreds of open-source hardware examples and dozens of readily available embedded expansion options available off-the-shelf. To run i
```

Source 2

File: [01-introduction.rst](#) (.rst) **Path:** [boards/beagle/ai/01-introduction.rst](#) **Link:** [01-introduction.rst](#) **Language:** rst **Scores:** Composite: 1.786 | Rerank: 3.807 | Original: 0.217 **Contains:** Quality: 0.83 **Content:**

RAG Chatbot (Beaglemind RAG System PoC)

is designed to provide compatibility with BeagleBone Black's expansion headers as much as possible (01-introduction.rst).

5. **Purpose and Target Audience:** BeagleBone AI-64 is intended for developing artificial intelligence (AI) and machine learning solutions, with a focus on the open-source community and early adopters (index.rst). BeagleY-AI, being a powerful 64-bit quad-core single board computer, also targets a similar audience but with its unique set of features and accelerators.

In terms of use cases, BeagleBone AI-64 might be more suitable for applications that require the specific features and expansion possibilities of the BeagleBone platform, while BeagleY-AI could be preferred for projects that can leverage its powerful DSPs, GPU, and vision accelerators, especially in vision processing and AI applications.

For specific scenarios, such as:

- **Machine Learning and AI Development:** BeagleY-AI might be more suitable due to its powerful DSPs and accelerators.
- **Expansion and Compatibility with Existing BeagleBone Projects:** BeagleBone AI-64 could be the better choice due to its compatibility with BeagleBone Black expansion headers.

Ultimately, the choice between BeagleBone AI-64 and BeagleY-AI depends on the specific requirements of the project, including the type of applications to be developed, the need for certain peripherals or expansion options, and the desired level of performance in areas like vision processing and machine learning.



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Sources & References

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Source 1

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```
.. _ai_64_edgeai_hw_requirements_eaik:

BeagleBone* AI-64
-----

BeagleBone* AI-64 brings a complete system for developing artificial intelligence (AI) and machine learning solutions with the convenience and expandability of the BeagleBone* platform and the peripherals on board to get started right away learning and building applications. With locally hosted, ready-to-use, open-source focused tool chains and development environment, a simple web browser, power source and network connection are all that need to be added to start building performance-optimized embedded applications. Industry-leading expansion possibilities are enabled through familiar BeagleBone* cape headers, with hundreds of open-source hardware examples and dozens of readily available embedded expansion options available off-the-shelf. To run 1
```

Source 2

File: [01-introduction.rst](#) (.rst) **Path:** boards/beagle/ai/01-introduction.rst **Link:** [01-introduction.rst](#) **Language:** rst **Scores:** Composite: 1.786 | Rerank: 3.807 | Original: 0.217 **Contains:** **Quality:** 0.83 **Content:**

Prompt: Can you show me the components location of beagle y ai?

Response:

RAG Chatbot (Beaglemind RAG System PoC)

can you show me Components location of beagle y ai

Answer

For the components location of the BeagleY-AI, you can refer to the documentation provided in [01-introduction.rst](#).

The front components location is shown in the figure:

 BeagleY-AI board front components location

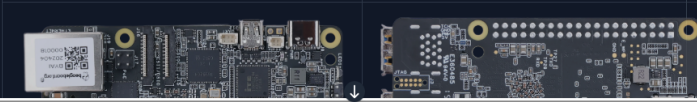
And the back components location is shown in the figure:

 BeagleY-AI board back components location

Additionally, you can also find images of the board in [README.md](#), which shows the front and back of the BeagleY-AI board:

Front

Back



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Sources & References

Source 1

File: [01-introduction.rst](#) (.rst) **Path:** boards/beagle/ai/01-introduction.rst **Link:** [01-introduction.rst](#) **Language:** rst **Scores:** Composite: 2.623 | Rerank: 5.881 | Original: 0.241 **Contains:** **Quality:** 0.83 **Content:**

```
.. tip:: For more information about AM67A SoC you can checkout https://www.ti.com/product/AI

Board components location
*****

Front components
-----

.. figure:: images/components-location/beagle-y-ai-board-front-annotated.*
    :width: 1400
    :align: center
    :alt: BeagleY-AI board front components location

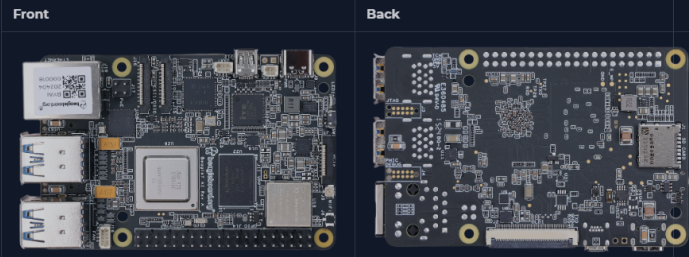
.. table:: BeagleY-AI board front components location
    :align: center
```

Source 2

File: [01-introduction.rst](#) (.rst) **Path:** boards/beagle/ai/01-introduction.rst **Link:** [01-introduction.rst](#) **Language:** rst **Scores:**

RAG Chatbot (Beaglemind RAG System PoC)

or the beagle-y-H1 board:



Please note that the exact component locations may vary depending on the specific board revision. It's always a good idea to check the official documentation for the most up-to-date information.

Detected Question Types: general

Ask a question about the repository...

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Sources & References

Sources & References

Source 1

File: [01-introduction.rst](#) (.rst) Path: [boards/beagle-y-h1/01-introduction.rst](#) Link: [01-introduction.rst](#) Language: rst Scores: Composite: 2.623 | Rerank: 5.881 | Original: 0.241 Contains: Quality: 0.83 Content:

```
.. tip:: For more information about AM67A SoC you can checkout https://www.ti.com/product/AM67A

Board components location
*****

Front components
*****

.. figure:: images/components-location/beagle-y-h1-board-front-annotated.*
    :width: 1488
    :align: center
    :alt: BeagleY-H1 board front components location

.. table:: BeagleY-H1 board front components location
    :align: center
```

Source 2

File: [01-introduction.rst](#) (.rst) Path: [boards/beagle-y-h1/01-introduction.rst](#) Link: [01-introduction.rst](#) Language: rst Scores: