Qualcomm Developer Project Interactive Segmentation demo

Project Submission

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| **Project Title**\* | Interactive Segmentation | |
| **Images**  *Upload up to 5 images of your project*  *Please submit/send the original JPEG/PNG files for all images included in the document* | **Qualcomm® CM2290**  IMG_256  [Alt tag: “Language Detector-demo using The Qualcomm® CM2290 SOC Open Kit”]  **Type-c usb line**   |  | | --- | | **typc** |   [Alt tag: “using the USB line to develop on Qualcomm® CM2290 SOC Open Kit” ]  **Charger**  charger  [Alt tag: “using round-hole charger to power Qualcomm® CM2290 SOC Open Kit”] | |
| **Description**\*  *High level description of the project* ***(75 words or less)*** | This project builds and runs the source code of the cm2290 development toolkit system on the cm2290 development board, fully utilizing the diversity of the development toolkit and its powerful connectivity and computing capabilities. Interactive Segmentation camera application that accepts an image and a point in the image, and then attempts to identify important areas around it. | |
| **Objective**   * *What inspired you to create this project?* * *What is your desired outcome?* | The CM2290 development board can be used for image processing, where the model can target a selected image and a point in the image, and then attempt to identify important areas around it. In some specific scenarios, it is necessary to identify the subject in the image to reduce interference with image recognition. It can cover the surrounding area of the marked subject with a mask. | |
| **Materials Required / Parts List / Tools** | Part Name | Link to purchase |
| Qualcomm® CM2290 SOC Open Kit | https://www.thundercomm.com/zh/product/cm2290-c2290-development-kit |
| USB Line | https://item.jd.com/40759941966.html |
| Charger |  |
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| **Source Code / Source Examples / Application Executable**  *Link to open source / shareable code repository* | Description | Link |
| Source Code | https://github.com/ThunderSoft-XA/CM2290-Interactive Segmentation-demo |
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| **Additional Resources**  *List related links or resources such as websites, videos, presentations, or other materials* | Resource Title | Link or File Name (and provide file) |
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| **Build / Assembly Instructions** | Sample outline:   1. Open Android Studio. From the Welcome screen, select Open an existing Android Studio project. 2. From the Open File or Project window that appears, navigate to and select the interactive\_segmentation/android directory. Click OK. You may be asked if you trust the project. Select Trust. 3. If it asks you to do a Gradle Sync, click OK. 4. With your Android device connected to your computer and developer mode enabled, click on the green Run arrow in Android Studio. | |
|  | Sample outline:   1. How does it work?   The user provides a small amount of interaction to complete the segmentation of the target object. Interaction can take various forms such as clicking, scribing, and drawing boxes. In academic research, it is generally in the form of clicks. Because click interaction is the simplest, and the click based method has a widely recognized training/evaluation ecosystem. | |
| **Usage Instructions** | The Demo running results are as follows：  final result:  020405 | |
| **Contributor(s) Info**  *Feel free to include headshots!* | Name | Title  Company |
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Filters and Tags for QDN projects page

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| **Platform/Hardware** | CSR 101x/102x Bluetooth  DragonBoard 410c  mangOH Red/Yellow  √ Qualcomm CM2290 | MDM920x LTE for IoT  QCA-402x WiFi/BLE/Zigbee  Qualcomm Robotics RBx Dev Kit |
| **Software Tools** | 3D Audio Plugin for Unity  Adreno GPU SDK  Hexagon DSP SDK | √ Neural Processing SDK for AI  　Snapdragon Profiler |
| **Operating System** | √ Android  Linux  ThreadX RTOS | Ubuntu Core  Windows 10 IoT Core |
| **Cloud Services/Platform** | Sierra Wireless AirVantage  Gizwits Cloud Platform  AT&T M2X  IBM Bluemix | IBM Watson IoT  Microsoft Azure IoT  Amazon AWS IoT |
| **Skill Level Required** | Advanced  Beginner  √ Intermediate |  |
| **Areas of Focus** | 3D Printing & Modeling  Alexa Voice Service  Artificial Intelligence  Bluetooth  Computer Vision  Digital Signage  Education  √ Embedded  Gaming | Healthcare  IoT  Robotics  Security  Sensors  Smart Cities  Smart Home  Toys |

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