Augmentus(AI) - User Guide

By: `Team Augmentus` Since: `Nov 2019`

1. Introduction

Augmentus is a no-code and fully-integrated robotics platform that enables anyone – even those with no robotic experience or programming skills – to develop, deploy and re-purpose robotic systems in minutes. We strive to help businesses recoup return on investment faster by drastically lowering the time, cost, and skill barriers in implementing robotic systems.

1.1. An Introduction to Augmentus

The following 2 diagrams (Figure 1, Figure 2) highlight key sections of Augmentus's user interface. Refer to the description below each diagram for more information.

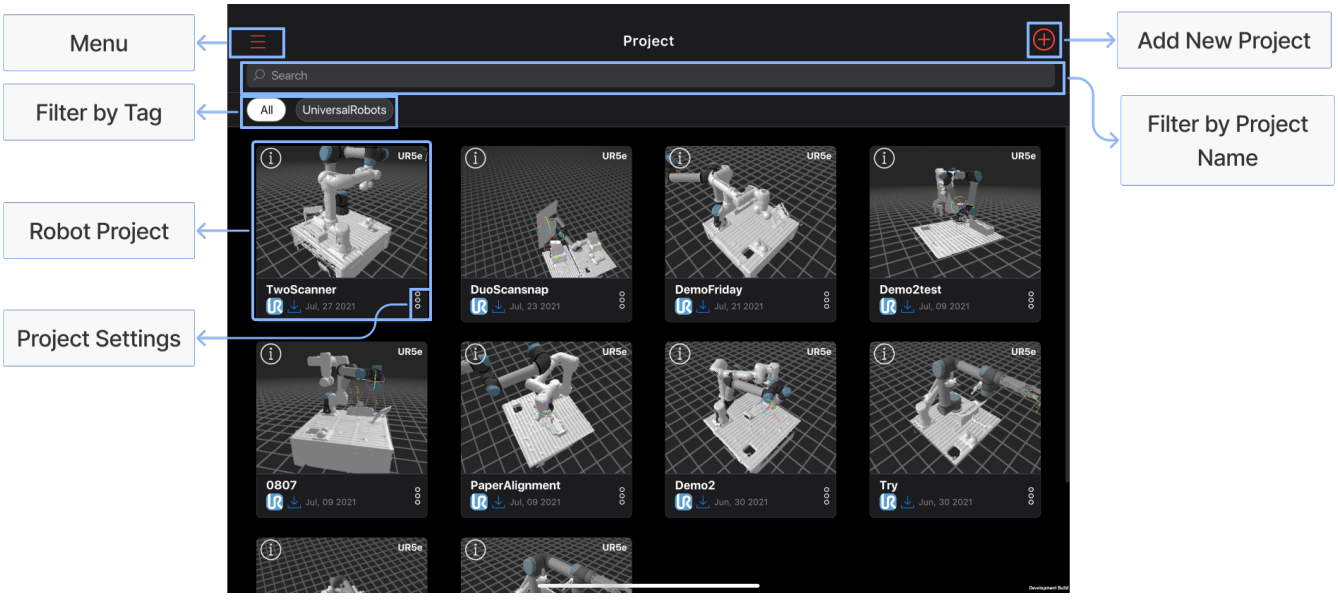

Figure 1. Augmentus GUI legends

1. As shown in the top-left hand corner of the diagram above, the Menu Button allows to user to have access to the Sidebar, allowing you to navigate through to the other Augmentus features.
2. User can select the specific `Project` they want to work on by clicking onto the Robot Project.

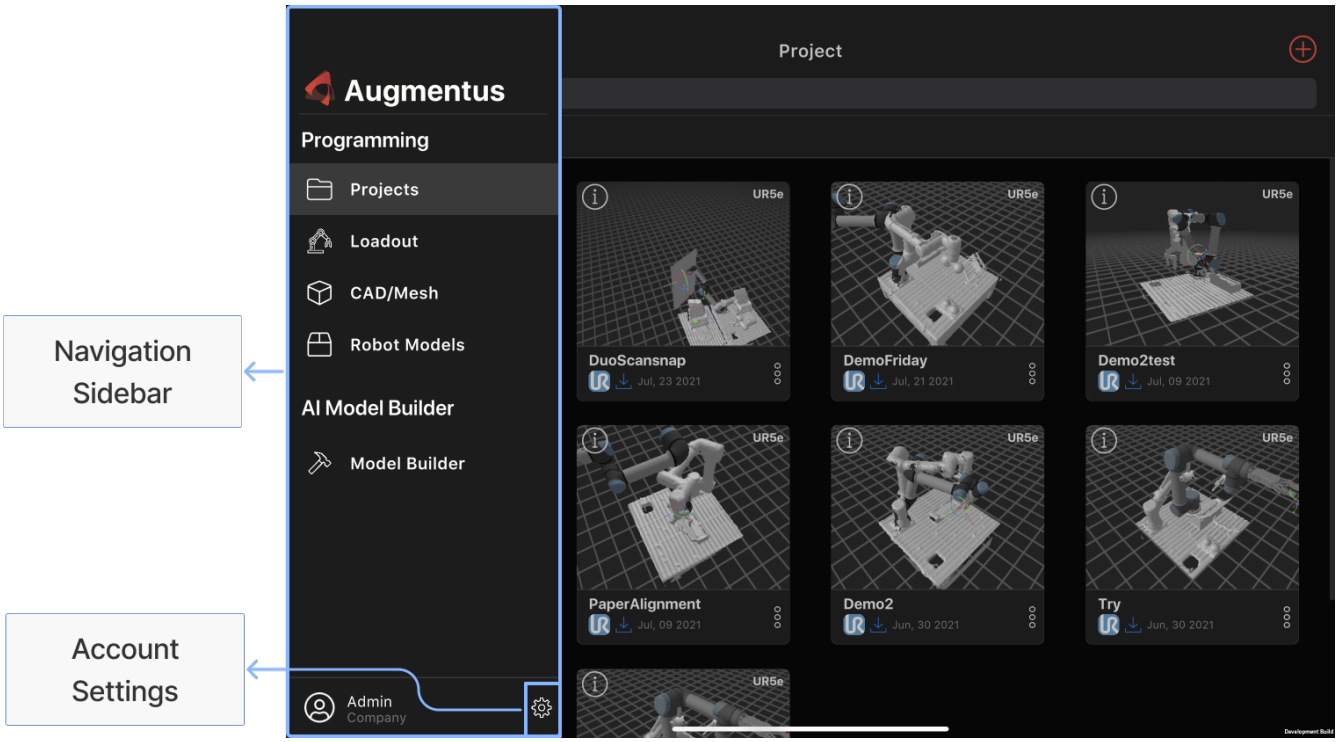

Figure 2. Augmentus GUI legends (continued)

1. As highlighted in diagram above, users can navigate to other features by using the navigation sidebar.

1.2. Symbols used in this guide

NOTE	Denotes something that you may want to take note of.
TIP	Denotes something that may be helpful if you are having any difficulties.
WARNING	Denotes a warning for something critical.

2. Getting started

1. Ensure you have both the `AugmentusApp` and `Augger` app installed on your Device.
2. Click on the `AugmentusApp` to start the app. The Application should start immediately.
3. Enter your Username and Password provided by Augmentus.

NOTE	If you have trouble login in to your account. Please contact Augmentus Support at `support@augmentus.tech`

3. Features

3.1. Augger Scanner

Scanning

- Select Augger app on the iPad to begin scanning.
- Ensure the sensor is connected to the iPad.
- Pinch to set scanning volume.

[PlaceHolder] | *PlaceHolder.png*

- Adjust scanner settings for proper exposure and configuration.
- Select Start to begin scanning.
- Point the iPad at the area-of-interest and walk around slowly.
- Once the environment has been scanned, save the mesh by clicking on the save button.
- Proceed onto the `AugmentusApp`

TIP

1. Move slowly during the scan and avoid sudden movement.
2. If the sample has dark surfaces, increase the exposure in Setting.
3. If the sample has reflective surfaces, use talcum powder or scanning spray like AESUB to apply a matt coating.
4. If tracking is lost, move back to the previous position or restart the scan.

3.2. Project Creation

Creating a Project

- Navigate to the `Project` Tab by using the Navigation Sidebar shown here

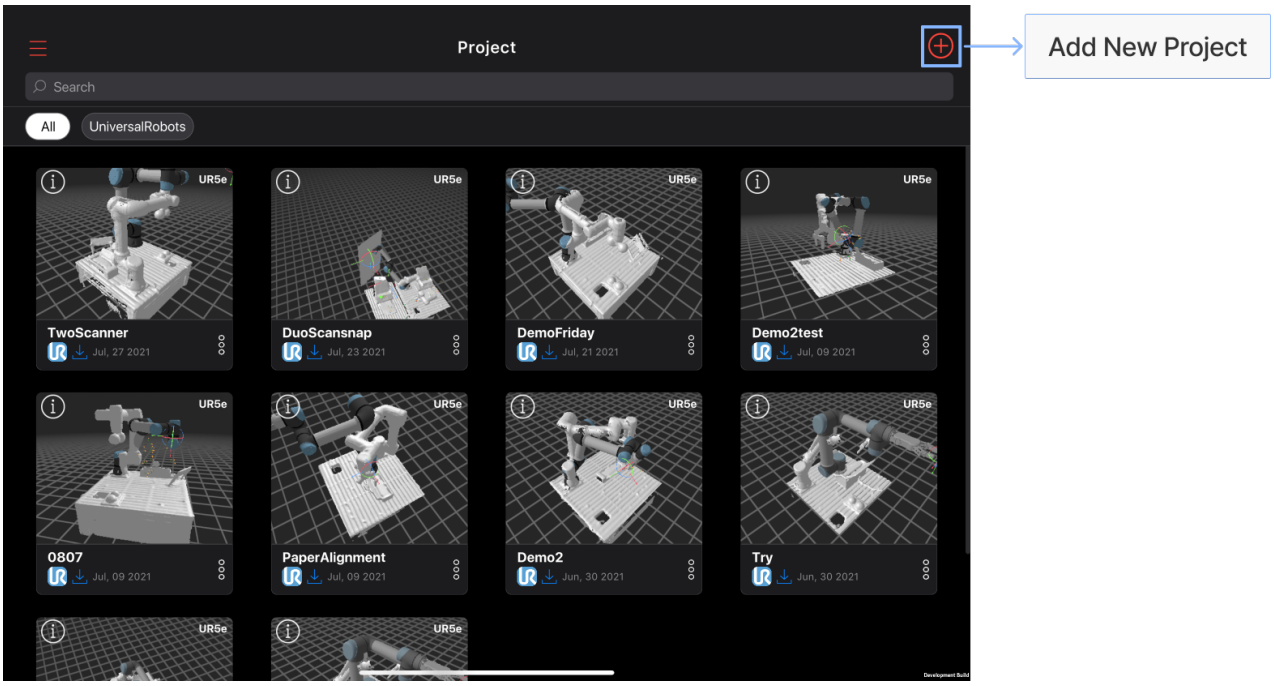

Figure 3. Figure showing Add New Project button.

- Click on the `Add New Project` button.

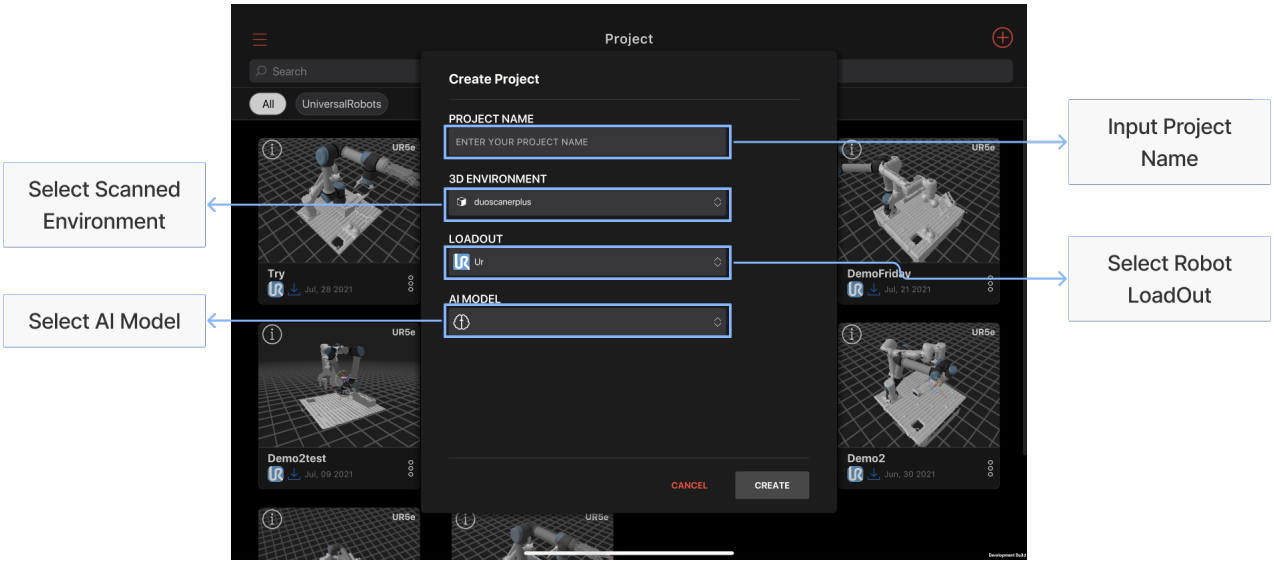

Figure 4. Figure showing Project Creation Popup.

- Input the required details; `Project Name`, `Scanned Environment`, `Robot Loadout`, `AI Model`. Then press the `Create` button.

3.3. Robot Planning

3.3.1. Opening the Project

- Navigate to the `Project` Tab by using the Navigation Sidebar shown here

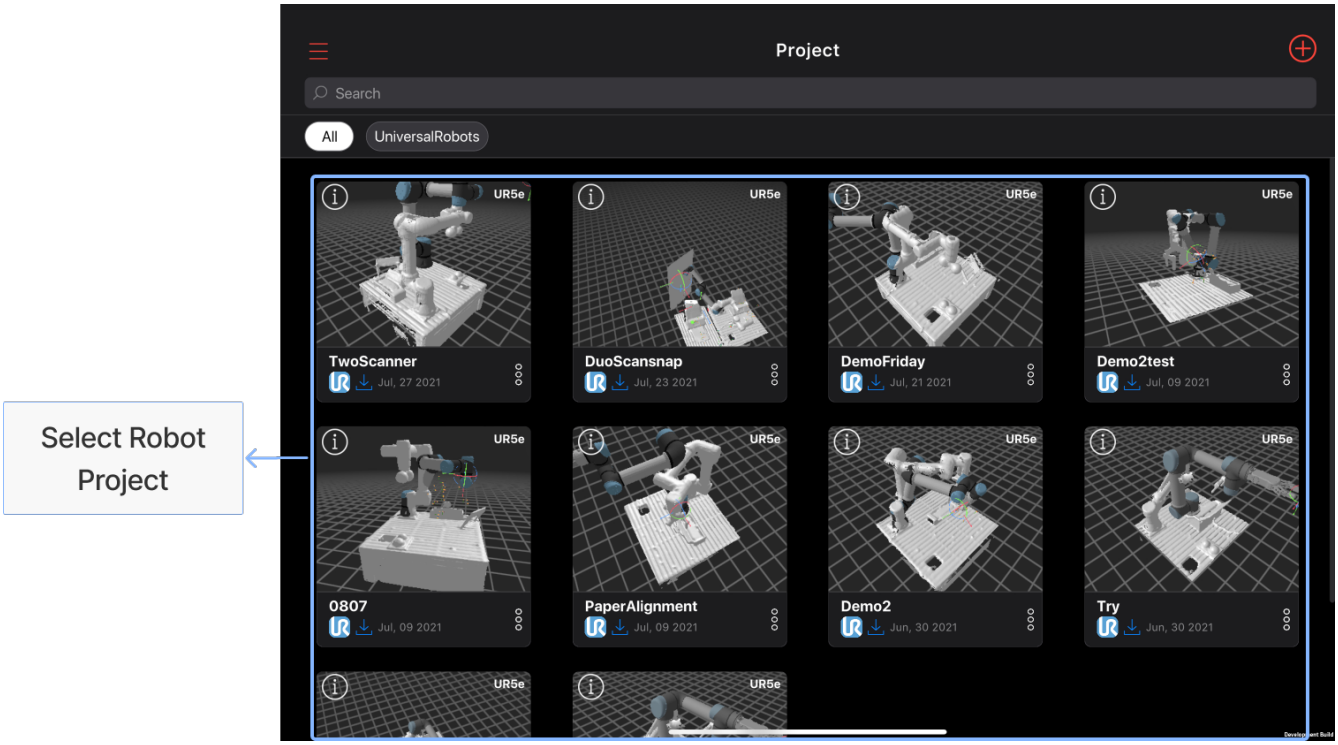

Figure 5. Figure showing Project tab.

- Select the Project you want to work on.

3.3.2. Calibrating the Robot Position.

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3.4. Download Robot Models: `Robot Models`

- Navigate to the `Robot Models` Tab by using the Navigation Sidebar shown here

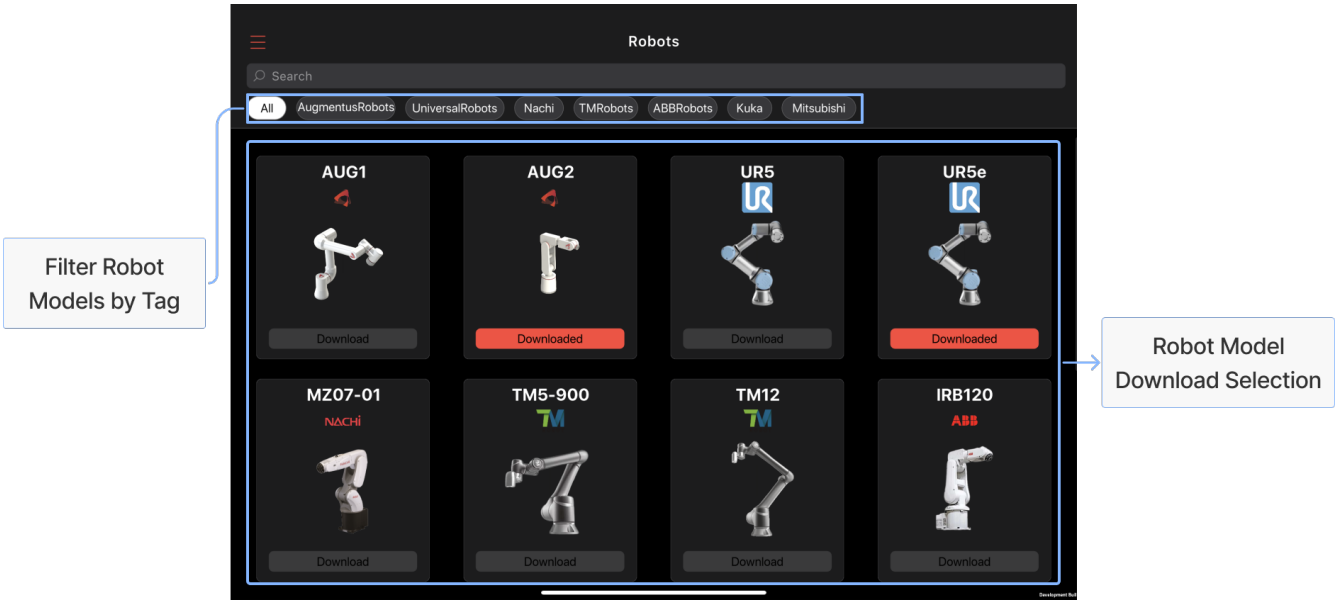

Figure 6. Figure showing Loadout tab.

- Choose the Robot Model that you want to download and click download.

3.5. Robot Loadout : Loadout

Creating a Robot Loadout

- Navigate to the `Loadout` Tab by using the Navigation Sidebar shown here

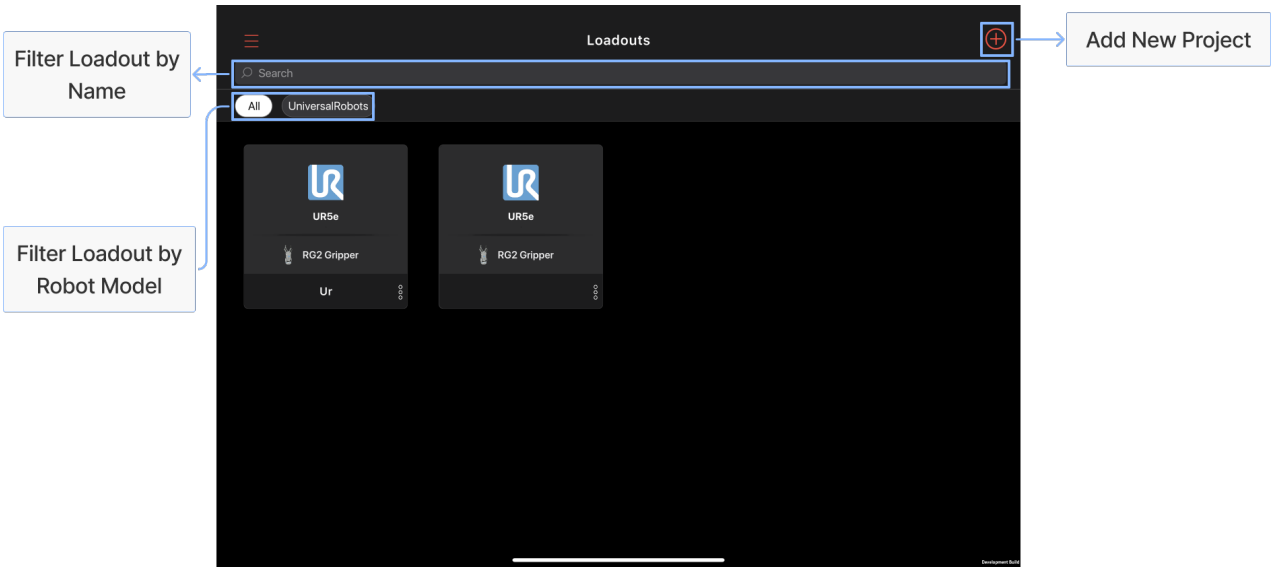

Figure 7. Figure showing Loadout tab.

- Click on the `New Loadout` button as shown on the diagram above.
- Click into the newly created `Loadout` to configure the settings.

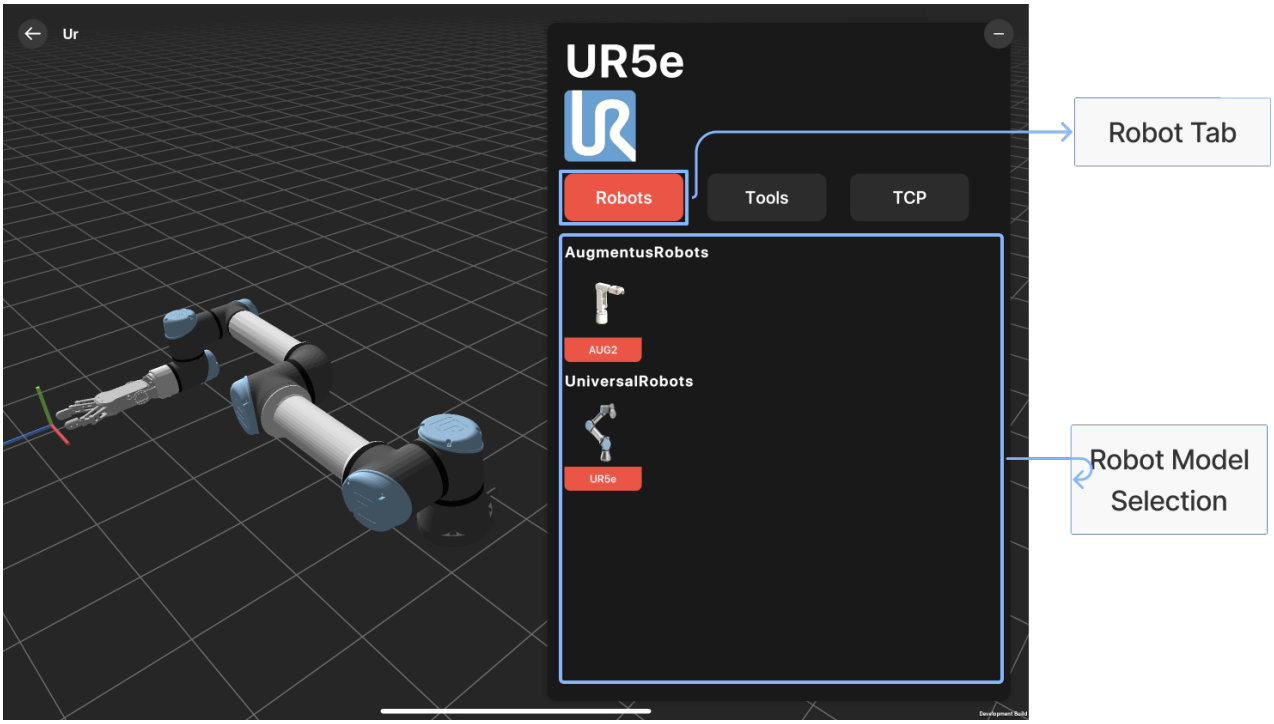

Figure 8. Figure showing Robot Loadout tab.

- In the Robot Loadout, proceed to choose the Robot Model.

> **NOTE** You can download your desired `Robot Model` by following the guide here.

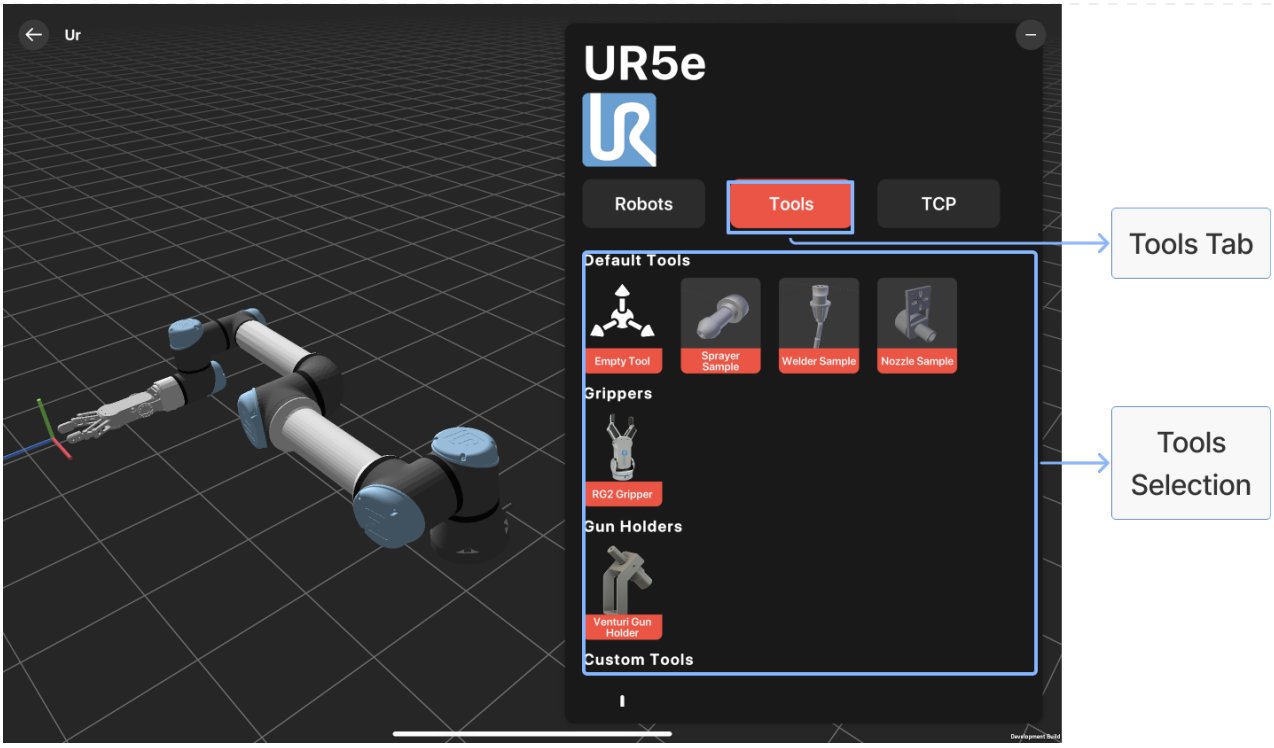

Figure 9. Figure showing Tool Loadout tab.

- After choosing your Robot Model, you can insert your Tool tip (if any) by clicking on the tools in the `Tools Tab` as shown in the figure above.

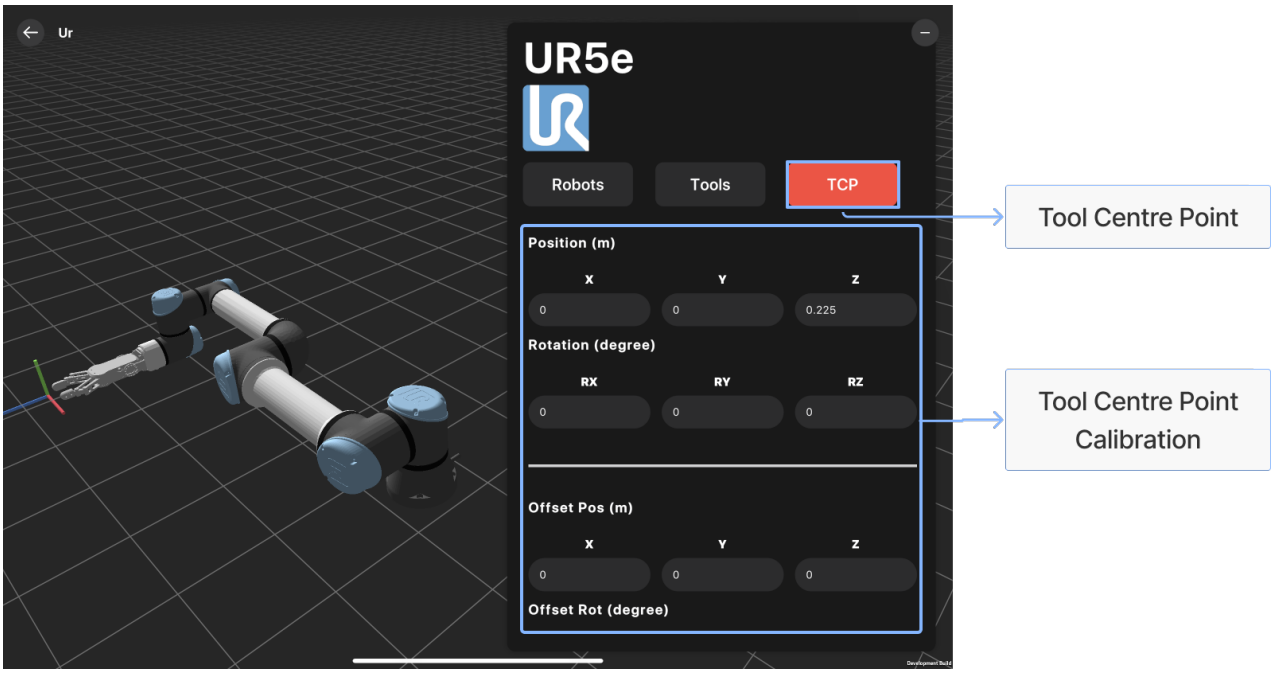

Figure 10. Figure showing Tool Centre Point Calibration tab.

- Users can also configure the TCP(Tool Centre Point) to their desired offset by Selecting the `TCP` tab.

3.6. AI Training : `ai`

3.6.1. Collecting Images

- Users can either collect images by using the Camera Roll on their iPads or Transfer images to their photo gallery.

3.6.2. AI Model Creation

- Navigate to the `AI` Tab by using the Navigation Sidebar shown here

[Aimodelcreation 1] | *Aimodelcreation_1.png*

Figure 11. Figure showing AI tab.

- Click the `Add Model` button as shown in the top-right hand corner of the diagram above.

[Aimodelcreation 2] | *Aimodelcreation_2.png*

Figure 12. Figure showing AI Create Popup.

- Input the `AI Model Name`. Then press the `Create` Button.
- After creating the Model, click the `Add Images` button as shown in the diagram above.

3.6.3. Labelling the Added Images

- Click into the Model of interest.
- Start Labelling the added images and press the `Save` button before moving to the next image.
- Use the image slider to navigate to the different images added.

3.6.4. Model Training

- Navigate to the `AI` Tab by using the Navigation Sidebar shown here
- Click on the `Train` button for the model you want to train.
- Click on the `Confirm` button.

3.6.5. Download Models

- Click on the `Download` button for the model you want to download

NOTE	Sending another Training Job of the same name will delete the previous `Model` of the same name.

4. FAQ

Q: How do I transfer my data to another Computer?
A: Install the app in the other computer and overwrite the empty data file it creates with the file that contains the data of your previous Notably folder.