

from your dining room table

Q & A

Is it possible to program multiple tool paths on a single robot?

Yes, absolutely. We recently did the maths and you can have up to 10,000 toolpaths on one robot. The home screen of Choreograph's dashboard also has a dropdown menu featuring all the toolpaths created on the robot to date, so you can choose the appropriate one and run it directly from the dashboard. You can also upload toolpaths you create on one robot to another robot, which can save you time when building identical robot cells.

How would someone go about creating more precise toolpaths?

One of the features present in Choreograph is the ability to finesse the robot's position. In the software, by clicking on the waypoint, you are able to use the 'Move waypoint' function, which allows you to specify the position of the robot on the X, Y and Z axes. This gives you precision down to 0.1mm. In this way, you can teach the robot the position using the backdrive function, then use Choreograph to fine tune your coordinates.

Is it possible to build more complex integrations via an API?

Yes, we offer a REST API and Python SDK, to allow you to build more complex integrations and interface with external controllers. Our documentation page gives you more information on how the API works.

Can you program two robots to work together?

Yes, you can! Like a human, in some cases two robots are better than one (in the same way that humans have two arms). You would need to ensure that the robots are programmed in tandem and start their toolpaths at the same time, but it is entirely possible. Another consideration is the safety of the robot - ensuring that the robots are placed far enough apart that they don't collide with each other. You can also use an external controller such as a PLC - that way you wouldn't have one robot controlling the other, but instead one controller controlling both. This sort of integration can be quite complex to achieve if your business is unfamiliar with robotics, so get help from our experts and request a callback to find out more.

Is it possible to control remotely e.g. from home?

Absolutely. You can connect Eva up to your WiFi network and remotely dial into the robot from home. For example, some customers might still have parts arriving into their factories but at no set times, so the 'Scheduler' function in Choreograph would not be suitable. They can have a system that provides the parts to the robot, have Eva on the factory WiFi network and run the toolpaths manually from home. We have also had a number of customers use LabVIEW to interface with the robot and gather the required testing data.

What is the max payload of the robot?

Eva maximum payload is 1.25kg. However, you should consider that this payload also includes the weight of your end effector or gripper and factor that into your calculations. This also means that Eva is suitable for use cases that don't require as high a payload as other robots provide, making this an exciting space for manufacturers.

Does the robot come with the option of a 7th axis?

At this point, it does not, but we work with a number of partners to do this. You can control an additional axis through the API.

Can the robot control additional axes for other servos?

Yes, it's possible to do so through the API.

Does the robot have built-in IOs and are they analog or digital?

The robot comes with a built-in IO near its head, to allow you to easily connect end effectors and grippers. Eva also has two analog and digital inputs on its base, where its controller is located (no external teaching pendant!).

What is the lead time for purchasing a robot?

Lead time for Eva is usually around 4 weeks. Right now, we are prioritising customers working on projects related to COVID-19 and we can expedite shipping an Eva to you sooner. We also have a dedicated COVID-19 support page where you can get in touch with us and let us know more about your project.

Can Eva connect to external PLCs?

Yes, Eva can be connected to external PLCs and programmed through the API. We have some further information about this on our blog.

Can you program Eva using ROS?

At this point, Eva does not come with ROS as standard. However, we have seen some academic customers have success through the use of the API and there are plans to evaluate ROS in future.