# Ivy Group

Ivy Z, from the Ivy Group family, is a framework for creating digital twins for devices with a manual XY platform in the horizontal plane and a motorized Z axis in the vertical plane.

Such devices work as an inspection after the Z-axis has been fitted with a camera or with a mechanical system for Pick & Place operations.

These devices are often controlled by a simple embedded computer. They are programmed with a button panel and a simple display.

Ivy Z
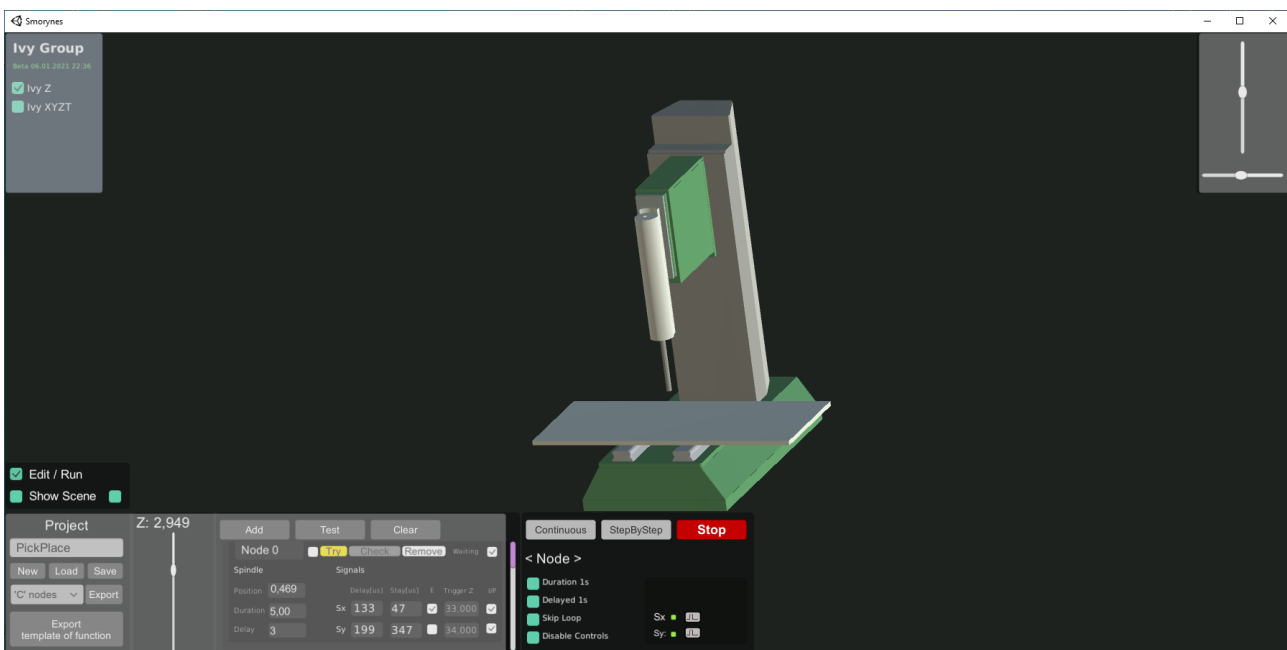
Ivy Z is a graphical system that allows you to set a system of points called nodes. Each node is identified by a position on the Z axis and a set of extension functions. In the case of the simplest variant IvyZ, these are two output signals Sx and Sy, which can be triggered either by reaching the prescribed position Z and / or by activating the input signal Ix, Iy.

How can the Ivy Z be used in practice ?

Online programming is assumed. Connect to http://xyzt.crazyplay.eu/Ivy/ After starting the application, program the expected points and if necessary, set the parameters of the Sx and Sy signals. Set the file name and save the data on your local computer with the Save button.
Simulate Z axis movement and function by switching to Run mode. After verification, you can export the data to your local computer using the <Export> button. Export in the form of source code can be selected in C # or other format. Formats are constantly expanding.

How to use data in a physical device ?

It is assumed that the equipment supplier modifies the machine firmware so that it can use the generated data. E.g. their transmission via RS232 or bluetooth channel to the device and use as parameters of individual Z-axis operations.

Can be offline programming used ?

For this method of programming, you can consult the delivery of a desktop offline version for PC, Mac and mobile versions for Android and iOS.

Do you offer similar machines and want to extend them with 3D benefits ?

If you are interested in cloning the Ivy Group 3D interface for your machines, we will implement it in the following steps:

- send us your machine model in some usual CAD format
,describe the operation of the machine and specify the individual extensions required

- we will modify your model so that it can be rendered in the 3D system we use

- we integrate the necessary extensions after mutual consultations with your company

- we install the beta version on the server so that it is possible to start testing

- after the testing is finished and product is accepted by you, licensed source codes and documentation will be provided