

# A QUICKSTART GUIDE

## to deploying your robot safely

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26<sup>th</sup> November, 2020

### with Automata and PILZ - FAQ

#### **How long does it take the robot to stop when you press the emergency stop button?**

The absolute worst case is 0.59 seconds before it comes to a complete stop. That's with the robot fully loaded and running at full speed. You can find all the maximum stopping times and distances in the safety manual.

In practise, it's likely to be much quicker. So it's worth doing your own testing if this is needed as part of your safety case (for example, working out the distance between the robot and safeguard).

#### **How do I connect additional emergency stops, light curtains and other safety features?**

If you simply want to expand on the number of emergency stops you could run multiple switches in parallel. The emergency stop port on the robot is a standard 4-way M8 connector, so it should be easy enough to wire up your own circuits.

For more complex arrangements, if the application doesn't require anything higher than PLC, you could replace the emergency stop switch with a safety relay or controller. The relay contacts would essentially replace the switch contacts. Any emergency or additional protective devices would then be connected to the input of the new relay.

For anything higher than PLC, you'd have to put the relay contacts in line with the power supply.

Remember that you'll always need an emergency stop somewhere in your circuit. A protective device, such as an interlock is not a replacement, it's an additional protective measure.

#### **What applications would Eva not be suitable for?**

Applications with payloads over 1.25kg, welding, screwing, drilling, unpackaged foods and other applications requiring cleanroom specs and high temperature / high humidity operating environments. As Eva is not a cobot, any applications that require fully collaborative specs are also unsuitable.

From a safety perspective, there are additional applications which Eva is not suited for:

- Explosive atmospheres (ATEX)
- Medical applications
- As part of a system that elevates or transports people

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### **What are the differences between CE marking and UKCA?**

Functionally, there are no differences between the two as they both reference the same directives. However, it is worth noting that UKCA markings can only be applied from within the UK and that for companies that are UK-based and want to continue selling into the EU, they will need an EU-based company to do the CE certification for them. [Pilz](#) can support with this on both the UK and the EU side.

For any further questions on safety or how to get started with Eva, [ask an automation expert today](#).