



1

Payload & Reach

Is the robot's payload rated high enough to deal with the intended loads?
Don't forget that the payload includes the weight of the end effector (gripper). For example if you're picking up 5kg boxes of fruit, you will need more than a 5kg payload robot, as the end effector could weigh another 3-5kg.
How far does the robot need to reach?
A fairly straight forward idea, except that the working envelopes of robots are always different shapes. Check the working envelope of the robot carefully, as the given reach dimension doesn't always tell the full story.



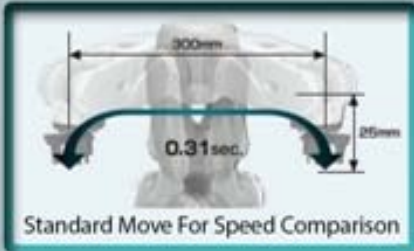
Useful Working Envelope



2

Speed & Accuracy

How fast and accurate does the robot need to be?
Some of the latest robots are CRAZY fast and more accurate than 99.9% of applications would ever need. To compare the speeds of smaller robots, there is a standard move which most manufacturers publish. For larger robots (10kg +) the speed of each joint in degrees/second is usually the only way to compare speeds.
For accuracy (also called repeatability) expect around 0.02 - 0.1mm for smaller robots through to around 0.2 - 0.5mm for the larger robots.



Standard Move For Speed Comparison



3

Safety & Programming

Is a collaborative robot the right option?
A collaborative robot is a robot which can be operated without a safety cage. If a collaborative robot hits you, it will stop; quite different to a standard robot which is likely to do damage if it hits you. This collaborative ability comes at the cost of speed, as collaborative robots are typically less than half the speed of their non-collaborative equivalents.
Many robot manufacturers are starting to provide simpler methods of programming their robots. If you are regularly changing what your robot does, the added cost of using a robot you can teach by grabbing it and pulling it around could quickly provide a payback through greatly reduced programming times.



4

Service & Support

Is there integration / programming / service support in NZ?
Buying a robot from a company who can help you integrate it into your production can save you a whole lot of time and money. It's also critical that you have someone to call if your robot stops working. Robots need annual services and software updates, so it pays to get an idea of who is going to carry this out and how much it will cost. Buying off a "Distributor" rather than an "Authorised Partner" or "Approved Integrator" provides a single point of contact for your Robot.



5

Price

Now I know what I want, what will it cost?
Be very specific about what you need when you're asking for a price. There are a HUGE number of options which make it possible to triple the price of a standard robot by ticking the option boxes. 70% of our robots are sold as part of a turnkey system. When you're looking at the cost of the entire system, the robot typically accounts for 1/3 of the cost, so don't go and spend 90% of your budget on the robot.....

PURCHASING A ROBOT?
Here's what you should know...