Intisari

The Kawasaki UX 150 Industrial Robot is one of the useful device from Kawasaki Heavy Industries in medium work application. To get various function from this robot all we have to do is by put different gripper on the end effector. The maximum loading capacity of the Robot allows user to put until 150 Kg. Variety function in automotive application can be ranged from: *welding, cutting, spray painting, measuring inspection, sealing system, FR seat installation, tire installation, aluminium die casting,* and any other function.

From the calculation inside we can find critical point of the robot:

- Torque in each joint can be defined

τ_1= -4614	Nm	τ_4= 77,147	Nm
τ_2= -1848	Nm	τ_5= 181,056	Nm
τ_3= 384,742	Nm	τ_6= 61,601	Nm

- Electric motor can be defined

M1= 0.25	Kw	M2= 0.0587	Kw
M3= 0.1305	Kw	M4= 3.2532	Kw
M5= 2.4320	Kw	M6= 9.79	Kw

As we meant to place this robot in material handling application especially in handling seat installation of the Toyota Corolla Altis, we must considering the end effector mechanism so it will not break the soft smooth seat surface. In this case we use pneumatic system in the end effector.