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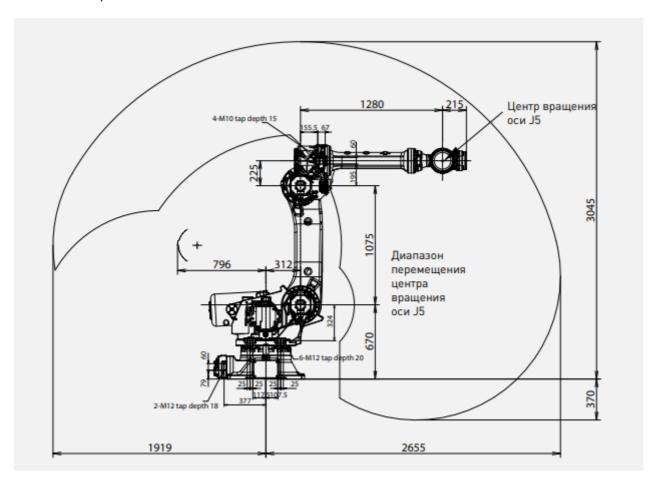
Homework 1

Fundamentals of Robotics

Done by Egor Sorokin

FANUC R-2000iC/165F was chosen. This is industrial robot with 6 DoF.

This is robots parameters.



And joint's possible rotation's degrees

Угол поворота (°)					
J1	J2	J3	J4	J5	J6
370	136	312	720	250	720

Formula for the DK of this robot is following

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$$\mathbf{T}_{z}(d_{0}) \cdot \left\{ \mathbf{R}_{z}(q_{1}) \cdot \mathbf{T}_{x}(d_{1}) \cdot \mathbf{R}_{y}(q_{2}) \cdot \mathbf{T}_{x}(d_{2}) \cdot \mathbf{R}_{y}(q_{3}) \cdot \mathbf{T}_{x}(d_{3}) \cdot \mathbf{T}_{z}(d_{4}) \right\} \times \left\{ \mathbf{R}_{x}(q_{4}) \cdot \mathbf{R}_{y}(q_{5}) \cdot \mathbf{R}_{x}(q_{6}) \right\} \cdot \mathbf{T}_{x}(d_{6})$$

Link to the GitHub:

https://github.com/Divinil001/FoR-Homeworks