We know that and , as well as and . θ1 and θ2 can rotate around O (0,0) independently while respecting the following condition . We are searching to express xd and yd in relation with L1, L2, θ1, θ2, etc.

A drawing of a rectangle with colored lines

Description automatically generated with medium confidence

|  |  |
| --- | --- |
| **Step** | **Analysis** |
| A graph of a function  Description automatically generated with medium confidence | car |
| A drawing of a line and a triangle  Description automatically generated |  |
| A drawing of a triangle  Description automatically generated | From cosinus lema we have:  so  and from sinus lema we have: |
| A graph of a triangle with numbers and lines  Description automatically generated with medium confidence |  |

so by replacing q and p from previous step we take:

and