```
function [T,R] = dhtrafo(q1, q2, q3, q4, q5, q6)
%Vorwärtskinematik
% Denavit-Hartenberg-Konvention

    theta1 = -q1;
    theta2 = q2+deg2rad(-90);
    theta3 = q3;
    theta4 = q4;
    theta5 = q5;
    theta6 = q6+deg2rad(90);

    alpha1 = deg2rad(-90);
    alpha2 = deg2rad(0);
    alpha3 = deg2rad(90);
    alpha4 = deg2rad(-90);
    alpha5 = deg2rad(-90);
    alpha6 = deg2rad(0);

    a1 = 330/1000;
    a2 = 1150/1000;
    a3 = 115/1000;
    a4 = 0;
    a5 = 0;
    a6 = 0;

    d1 = 645/1000;
    d2 = 0;
    d3 = 0;
    d4 = -1220/1000;
    d5 = 0;
    d6 = 215/1000;

    T01 = [ cos(theta1),    -sin(theta1)*cos(alpha1),       sin(theta1)*sin(alpha1),        a1*cos(theta1);
            sin(theta1),    cos(theta1)*cos(alpha1),        -cos(theta1)*sin(alpha1),       a1*sin(theta1);
            0,              sin(alpha1),                    cos(alpha1),                    d1;
            0,              0,                              0,                              1];


    T12 = [ cos(theta2),    -sin(theta2)*cos(alpha2),       sin(theta2)*sin(alpha2),        a2*cos(theta2);
            sin(theta2),    cos(theta2)*cos(alpha2),        -cos(theta2)*sin(alpha2),       a2*sin(theta2);
            0,              sin(alpha2),                    cos(alpha2),                    d2;
            0,              0,                              0,                              1];

    T23 = [ cos(theta3),    -sin(theta3)*cos(alpha3),       sin(theta3)*sin(alpha3),        a3*cos(theta3);
            sin(theta3),    cos(theta3)*cos(alpha3),        -cos(theta3)*sin(alpha3),       a3*sin(theta3);
            0,              sin(alpha3),                    cos(alpha3),                    d3;
            0,              0,                              0,                              1];

    T34 = [ cos(theta4),   -sin(theta4)*cos(alpha4),       sin(theta4)*sin(alpha4),        a4*cos(theta4);
            sin(theta4),    cos(theta4)*cos(alpha4),        -cos(theta4)*sin(alpha4),       a4*sin(theta4);
            0,              sin(alpha4),                    cos(alpha4),                    d4;
            0,              0,                              0,                              1];

    T45 = [ cos(theta5),    -sin(theta5)*cos(alpha5),       sin(theta5)*sin(alpha5),        a5*cos(theta5);
            sin(theta5),    cos(theta5)*cos(alpha5),        -cos(theta5)*sin(alpha5),       a5*sin(theta5);
            0,              sin(alpha5),                    cos(alpha5),                    d5;
            0,              0,                              0,                              1];

    T56 = [ cos(theta6),    -sin(theta6)*cos(alpha6),       sin(theta6)*sin(alpha6),        a6*cos(theta6);
            sin(theta6),    cos(theta6)*cos(alpha6),        -cos(theta6)*sin(alpha6),       a6*sin(theta6);
            0,              sin(alpha6),                    cos(alpha6),                    d6;
            0,              0,                              0,                              1];
```

```
    T = cat(3, T01, T12, T23, T34, T45, T56);

    R01 = T01(1:3,1:3);
    R12 = T12(1:3,1:3);
    R23 = T23(1:3,1:3);
    R34 = T34(1:3,1:3);
    R45 = T45(1:3,1:3);
    R56 = T56(1:3,1:3);

    R = cat(3, R01, R12, R23, R34, R45, R56);

end
```

```
Not enough input arguments.

Error in dhtrafo (line 5)
    theta1 = -q1;
```

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