Contents

```
function [] = show_graphics(q1, q2, q3, q4, q5, q6, qd1, qd2, qd3, qd4, qd5, qd6, qdd1, qdd2, qdd3, qdd4, qdd5, qdd6, t, tau, Pmech)
```

Gelenkwinkel in deg

```
figure(1)
hold on;
plot(t,q1*180/pi,Color='blue');
plot(t,q2*180/pi,Color='red');
plot(t,(q3+pi/2)*180/pi,Color="#77AC30");
plot(t,q4*180/pi,Color="#7E2F8E");
plot(t,q5*180/pi,Color= "#EDB120");
plot(t,q6*180/pi,Color='cyan');
qges = [q1,q2,q3+pi/2,q4,q5,q6]*180/pi;
x = xlabel({'Zeit [s]'},'Interpreter','latex');
y = ylabel({'Gelenkwinkel $\theta$ [deg]'},'Interpreter','latex');
leg = legend({'Gelenk 1','Gelenk 2','Gelenk 3','Gelenk 4','Gelenk 5','Gelenk 6'},'Interpreter','latex');
set(x,'FontSize',12);
set(y,'FontSize',12);
set(leg,'FontSize',12);
xlim([min(t), max(t)]);
ylim([min(qges), max(qges)]);
ax = gca;
ax.FontSize = 12;
ax.TickLabelInterpreter = "latex";
```

```
Not enough input arguments.

Error in show_graphics (line 6)
plot(t,q1*180/pi,Color='blue');
```

Winkelgeschwindigkeit in $\frac{deg}{s}$

```
figure(2)
hold on;
plot(t,qd1*180/pi,Color='blue');
plot(t,qd2*180/pi,Color='red');
plot(t,qd3*180/pi,Color="#77AC30");
plot(t,qd4*180/pi,Color="#7E2F8E");
plot(t,qd5*180/pi,Color="#EDB120");
plot(t,qd6*180/pi,Color='cyan');
qdges = [qd1,qd2,qd3,qd4,qd5,qd6]*180/pi;
x = xlabel({'Zeit [s]'},'Interpreter','latex');
y = ylabel({'Winkelgeschwindigkeit $\dot{\theta}$ [deg/s]'},'Interpreter','latex');
leg = legend({'Gelenk 1','Gelenk 2','Gelenk 3','Gelenk 4','Gelenk 5','Gelenk 6'},'Interpreter','latex');
set(x,'FontSize',12);
set(y,'FontSize',12);
set(leg,'FontSize',12);
xlim([min(t), max(t)]);
ylim([min(qdges), max(qdges)]);
ax = gca;
ax.FontSize = 12;
ax.TickLabelInterpreter = "latex";
```

Winkelbeschleunigung in $\frac{deg}{s^2}$

```
figure(3)
hold on;
plot(t,qdd1*180/pi,Color='blue');
plot(t,qdd2*180/pi,Color='red');
plot(t,qdd3*180/pi,Color="#77AC30");
```

```matlab
plot(t,qdd4*180/pi,Color="#7E2F8E");
plot(t,qdd5*180/pi,Color="#EDB120");
plot(t,qdd6*180/pi,Color='cyan');
qddges = [qdd1,qdd2,qdd3,qdd4,qdd5,qdd6]*180/pi;
x = xlabel({'Zeit [s]'},'Interpreter','latex');
y = ylabel({'Winkelbeschleunigung $\ddot{\theta}$ [deg/s]'},'Interpreter','latex');
leg = legend({'Gelenk 1','Gelenk 2','Gelenk 3','Gelenk 4','Gelenk 5','Gelenk 6'},'Interpreter','latex');
set(x,'FontSize',12);
set(y,'FontSize',12);
set(leg,'FontSize',12);
xlim([min(t), max(t)]);
ylim([min(qddges), max(qddges)]);
ax = gca;
ax.FontSize = 12;
ax.TickLabelInterpreter = "latex";
```

Betrag der, an den Motoren wirkenden Drehmomente τ in Nm$

```matlab
figure(4)
hold all;
plot(t,abs(tau(:,1)),Color='blue');
plot(t,abs(tau(:,2)),Color='red');
plot(t,abs(tau(:,3)),Color="#77AC30");
plot(t,abs(tau(:,4)),Color="#7E2F8E");
plot(t,abs(tau(:,5)),Color="#EDB120");
plot(t,abs(tau(:,6)),Color='cyan');
leg = legend({'Gelenk 1','Gelenk 2','Gelenk 3','Gelenk 4','Gelenk 5','Gelenk 6'},'Interpreter','latex');
x = xlabel({'Zeit [s]'},'Interpreter','latex');
y = ylabel({'$|\tau|$ [Nm]'},'Interpreter','latex');
set(x,'FontSize',12);
set(y,'FontSize',12);
set(leg,'FontSize',12);
ax = gca;
ax.FontSize = 12;
ax.TickLabelInterpreter = "latex";
```

Betrag der, an den Motoren wirkenden mechanischen Leistung P_{mech} in W$

```matlab
figure(5)
hold all;
plot(t,abs(Pmech(:,1)),Color='blue');
plot(t,abs(Pmech(:,2)),Color='red');
plot(t,abs(Pmech(:,3)),Color="#77AC30");
plot(t,abs(Pmech(:,4)),Color="#7E2F8E");
plot(t,abs(Pmech(:,5)),Color="#EDB120");
plot(t,abs(Pmech(:,6)),Color='cyan');
leg = legend({'Gelenk 1','Gelenk 2','Gelenk 3','Gelenk 4','Gelenk 5','Gelenk 6'},'Interpreter','latex');
x = xlabel({'Zeit [s]'},'Interpreter','latex');
y = ylabel({'$|P_{m,~Motor}|$ [W]'},'Interpreter','latex');
set(x,'FontSize',12);
set(y,'FontSize',12);
set(leg,'FontSize',12);
ax = gca;
ax.FontSize = 12;
ax.TickLabelInterpreter = "latex";
```

```matlab
end
```