Report:

1. All the experimental data and findings as listed below:

Procedure 2	Plot the data in Pot_data.txt to find out Kp, the potentiometer sensitivity
Procedure 3	Plot the data in Motor_Speed.txt to find out Am, Tm and K_{TG}
Procedure 4	Plot the data in Motor_Position_4.55.txt to find out the steady state error Ess, the peak overshoot Mp and the peak time tp. From Mp calculate the damping ration, ζ.
Procedure 5	Plot the data in Motor_Position_10.txt to find out the steady state error Ess, the peak overshoot Mp and the peak time tp. From Mp calculate the damping ration, ζ. Plot the data in Motor_Position_21.4.txt to find out the steady state error Ess, the peak overshoot Mp and the peak time tp. From Mp calculate the damping ration, ζ.
Procedure 9	Plot the data in Motor_Position_21.4_tacho.txt and analytically explain why the peak overshoot has reduced.
Procedure 10	Plot the data in Motor_Position_21.4_tacho_positive.txt and analytically explain the response.

2. Calculate the closed-loop transfer functions of the system for the highest value of A
   and (a) no velocity feedback (Kv=0) and (b) normal velocity feedback with K_v=1.