



Military Institute of Science and Technology
DEPARTMENT OF ELECTRICAL, ELECTRONIC AND COMMUNICATION
ENGINEERING

Course Title: Control System Laboratory
Course Code: EECE 402
Group: 04

Project Report

Robust Control of a Self-Balancing Robot:
PID Implementation in MATLAB Simulink and Hardware under
Disturbances

Group Information

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Cost Estimation:

Component	Qty	Unit Price	Price (BDT)
Chassis (3D printed)	1	400	400
Yellow DC Geared Motors+ wheel	2	150	300
MPU6050 Sensor	1	250	250
L298N Motor Driver	1	180	180
Arduino UNO	1	1000	1000
18650 Li-Ion Battery	3	110	330
Battery Case (3-cell)	1	60	60
I2C OLED Display	1	680	680
Wires box	1	200	200
Total	—		3400