**MECT 613 – MICROCONTROLLERS – FALL 2017**

**MIDTERM PROJECT**

SELF-BALANCING ROBOT

|  |  |
| --- | --- |
| **PREPARED BY** | |
| Mohd Saiful Akmal Bin Razali | 171021 |
| Gabriel de Brito Silva | 171020 |
| Hedaya Ali | 171103 |
| Berit Adina Haendel | 171018 |

**Prepared for:**

Prof. Mahmoud El-Samanty

**SCHOOL OF ENGINEERING & APPLIED SCIENCES (EAS)**

**DATE OF SUBMISSION:**

**‏02‏/12‏/2017**

# 0 Introduction

# 1 Hardware

# 2 Theoretical analysation

## 2.1 Inverted pendulum

## 2.2 Calculation of angle

# 3 Design

## 3.1 Frist design approach

## 3.3 Reworked: Second design approach

# 4 Code