DAFTAR GAMBAR

Gambar 2.1 Bagian-bagian dari arduino.................................................................9
Gambar 2.2 Bagian-bagian pin dari arduino............................................................10
Gambar 2.3 Software Arduino IDE ........................................................................13
Gambar 2.4 Menu Toolbar Software Arduino IDE ................................................14
Gambar 2.5 Modul MPU-6050 .............................................................................16
Gambar 2.6 PID Kontroller ..................................................................................17
Gambar 2.7 Bentuk Fisik IC L298 dan Modul Driver Motor L298N ....................18
Gambar 2.8 Motor DC ..........................................................................................19
Gambar 2.9 Baterai ..............................................................................................20
Gambar 2.10 Regulator LM 7805 ...........................................................................20
Gambar 3.1 Blok Diagram ....................................................................................22
Gambar 3.2 Sketsa Rangka Dasar .......................................................................23
Gambar 3.3 Penyambungan Motor Driver L298 dengan Arduino Uno ..............24
Gambar 3.4 Penyambungan Motor Driver L298, MPU6050 dengan Arduino Uno .........................................................................................................................25
Gambar 3.5 Pengenalan Pin ..................................................................................26
Gambar 3.6 Program Void Setup .........................................................................27
Gambar 3.7 Program untuk ke Serial Monitor ......................................................28
Gambar 3.8 Pemrograman Motor Dc, MPU6050 dan Motor Driver ..................29
Gambar 3.9 Flowchart Perangkat Robot ..............................................................30
Gambar 4.1 Hasil Perancangan Mekanik Alat Keseluruhan...............................33
Gambar 4.2 Mekanik alat tampak luar .................................................................34
Gambar 4.3 Penyambungan dengan Arduino Uno ..............................................34
Gambar 4.4 Penyambungan Motor Driver L298N ............................................35
Gambar 4.5 Penyambungan keseluruhan ............................................................35
Gambar 4.6 Sketch Selesai Di Verify/Compile .....................................................37
Gambar 4.7 Port Arduino Uno Terdeteksi Oleh Laptop/Notebook ......................38
Gambar 4.8 Port Arduino Uno Pada Program Arduino IDE ................................39
Gambar 4.9 Board Arduino Uno Pada Program Arduino IDE .............................39
Gambar 4.10 Proses Upload Ke Arduino Uno ....................................................40
Gambar 4.11 Proses *Uploading* Selesai ................................................................. 40
Gambar 4.12 Program MPU6050 .......................................................................... 42
Gambar 4.13 Pengujian MPU6050 ........................................................................ 43
Gambar 4.14 Program Motor *Dc* ....................................................................... 44
Gambar 4.15 Kondisi Motor DC........................................................................... 45
Gambar 4.16 Program Keseluruhan .................................................................... 47
Gambar 4.17 Pengujian Terakhir .......................................................................... 47