

## DAFTAR GAMBAR

Gambar 2. 1 Arduino uno [5] .....	5
Gambar 2. 2 Motor Driver L298N [6] .....	6
Gambar 2. 3 Pin motor driver [6] .....	7
Gambar 2. 4 Motor DC .....	8
Gambar 2. 5 Limit switch .....	8
Gambar 2. 6 Power supply .....	9
Gambar 2. 7 HC-SR04 [10] .....	10
Gambar 2. 8 Relay .....	11
Gambar 2. 9 Pulse width modulation [5] .....	11
Gambar 3. 1 Gambaran umum sistem .....	13
Gambar 3. 2 Blok diagram sistem .....	13
Gambar 3. 3 Blok diagram automatic gate .....	14
Gambar 3. 4 Rangkaian kontrol main gate .....	15
Gambar 3. 5 Rangkaian kontrol security gate .....	15
Gambar 3. 6 Rangkaian limit switch .....	17
Gambar 3. 7 Rangkaian motor driver .....	18
Gambar 3. 8 rangkaian sensor ultrasonik .....	18
Gambar 3. 9 Diagram alir masuk dan keluar pintu gerbang parkir .....	20
Gambar 3. 10 Diagram alir security gate .....	21
Gambar 3. 11 Skematik kontrol gerbang otomatis .....	22
Gambar 3. 12 Skematik motor driver menggunakan relay [12] .....	22
Gambar 3. 13 Rancangan mekanika main gate .....	23
Gambar 3. 14 Rancangan mekanika security gate .....	23
Gambar 3. 15 Implementasi main gate .....	24
Gambar 3. 16 Implementasi security gate .....	25
Gambar 4. 1 Skenario posisi sensor ultrasonik .....	26
Gambar 4. 2 Hasil pengujian akurasi sensor ultrasonik saat masuk .....	27
Gambar 4. 3 Hasil pengujian akurasi sensor ultrasonik saat keluar .....	28
Gambar 4. 4 Skenario jarak antara main gate dan security gate .....	28
Gambar 4. 5 Hasil pengujian proses masuk main gate .....	30
Gambar 4. 6 Hasil pengujian proses keluar main gate .....	31