

## DAFTAR GAMBAR

<b>Gambar II.1</b> Diagram Konsep Alat .....	6
<b>Gambar II.2</b> Sensor <i>Proximity</i> .....	7
<b>Gambar II.3</b> Photodiode .....	8
<b>Gambar II.4</b> LED .....	8
<b>Gambar II.5</b> Sensor Ultrasonik .....	9
<b>Gambar II.6</b> Arduino Mega.....	10
<b>Gambar II.7</b> Driver Motor DC IBT 2.....	10
<b>Gambar II.8</b> Motor DC.....	11
<b>Gambar II.9</b> Diagram Blok Sistem Kendali Closed Loop .....	12
<b>Gambar II.10</b> Diagram Blok Sistem Kendali Proporsional .....	13
<b>Gambar II.11</b> Diagram Blok Sistem Kendali Derivative .....	14
<b>Gambar II.12</b> Diagram Blok Sistem Kendali PID .....	15
<b>Gambar II.13</b> Modul <i>Bluetooth</i> HC-05 .....	16
<b>Gambar III.1</b> Diagram Blok Sistem Kendali AGV.....	17
<b>Gambar III.2</b> Diagram Keseluruhan Sistem Kontrol AGV .....	18
<b>Gambar III.3</b> Jalur Pin Arduino .....	20
<b>Gambar III.4</b> Perangkat Keras AGV.....	20
<b>Gambar III.5</b> Denah Perjalanan AGV.....	22
<b>Gambar III.6</b> Sensor Photodiode .....	23
<b>Gambar III.7</b> LED.....	24
<b>Gambar III.8</b> Driver Motor DC.....	25
<b>Gambar III.9</b> Motor DC .....	26
<b>Gambar III.10</b> Flowchart Kerja Sistem.....	29
<b>Gambar IV.1</b> Grafik Pengujian Motor DC.....	33
<b>Gambar IV.2</b> Hasil Pengujian Modul <i>Bluetooth</i> .....	37
<b>Gambar IV.3</b> Grafik Perbandingan Nilai Sensor dan Nilai Kp.....	39
<b>Gambar IV.4</b> Grafik Perbandingan Nilai Sensor dan Nilai Kd.....	42