**PID CONTROL TEST RESULT**

**PID ROLL CONTROL**

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| **Figure. 1** Graph of Response System on Roll Slope (Kp 0.5, Ki 1, Kd 1) |

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| **Figure. 2** Graph of Response System on Roll Slope (Kp 0.001, Ki 0.01, Kd 0.5) |

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| **Figure. 3** Graph of Response System on Roll Slope (Kp 1, Ki 0.05, Kd 0.1) |

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| **Figure. 4** Graph of Response System on Roll Slope (Kp 1, Ki 0.001, Kd 1) |

**PID PITCH CONTROL**

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| **Figure. 5** Graph of Response System on Pitch Slope (Kp 0.5, Ki 1, Kd 1) |

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| **Figure. 6** Graph of Response System on Pitch Slope (Kp 0.001, Ki 0.01, Kd 0.5) |

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| **Figure. 7** Graph of Response System on Pitch Slope (Kp 1, Ki 0.05, Kd 0.1) |

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| **Figure. 8** Graph of Response System on Pitch Slope (Kp 1, Ki 0.001, Kd 1) |

**PID DEPTH POSITION CONTROL**

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| **Figure. 9** Graph of Response System on Robot Depth Position (Kp 4, Ki 3, Kd 2) |

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| **Figure. 10** Graph of Response System on Robot Depth Position (Kp 3, Ki 2, Kd 2) |

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| **Figure. 11** Graph of Response System on Robot Depth Position (Kp 3, Ki 3, Kd 1) |

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| **Figure. 12** Graph of Response System on Robot Depth Position (Kp 5, Ki 1, Kd 3) |