Interface Connections

RPi1 provides connections for analogue inputs and digital inputs between the flight simulator and the *Thrustmaster* joystick, throttle and rudder pedal controls. These inputs are defined in the following tables.

RPi1 Analogue Inputs

| Item | Diagnostics | Channel | Notes |
|------|-------------|---------|-------|
| Aileron | P01 | 0 | +ve right |
| Elevator | P02 | 1 | +ve back |
| Rudder | P03 | 2 | +ve right |
| Elevator trim wheel | P04 | 3 | +ve backward |
| Throttle right | P05 | 4 | +ve backward |
| Throttle left | P06 | 5 | +ve backward |
| Right brake | P07 | 6 | -ve pressed |
| Left brake | P08 | 7 | -ve pressed |
| Electric elevator trim | P09 | 8 | +ve right |
| Electric rudder trim | P10 | 9 | +ve down |
| | P11 | 10 | |
| | P12 | 11 | |
| | P13 | 12 | |
| | P14 | 13 | |
| | P15 | 14 | |
| | P16 | 15 | |
| | TO1 | 16 | |
| | T02 | 17 | |
| | T03 | 18 | |
| | T04 | 19 | |
| | T05 | 20 | |
| | T06 | 21 | |
| | T07 | 22 | |
| | T08 | 23 | |
| | T09 | 24 | |
| | T10 | 25 | |
| | T11 | 26 | |
| | T12 | 27 | |
| | T13 | 28 | |
| | T14 | 29 | |
| | T15 | 30 | |
| | T16 | 31 | |

*Note:*
- Channels P11-P16 and T01-T16 are unused
- All analogue values are in the range $\pm32767$

## RPi1 Digital Inputs

| Item | Diagnostics | Notes |
|---|---|---|
| A/P disconnect | A7 | Stick rear trigger |
| Auto start | A6 | Stick red button |
| Gear up | A5 | Stick knurled black switch |
| Gear down | A4 | Stick knurled black switch |
| Reverse thrust disengage | A3 | Throttle red switch |
| Reverse thrust engage | A2 | Throttle red switch |
| HOLD button | A1 | Throttle back red button |
| Left fuel select | A0 | Throttle left fuel switch |
| Right fuel select | B7 | Throttle right fuel switch |
| Left ignition switch | B6 | Throttle left ignition switch |
| Right ignition switch | B5 | Throttle right ignition switch |
| Flaps up | B4 | Throttle flaps switch |
| Flaps down | B3 | Throttle flaps switch |
| Park brake | B2 | Throttle EAC ARM |
| RESTORE button | B1 | Throttle A/P engage |
| Left engine start | B0 | Throttle left IGN push |
| Right engine start | C7 | Throttle right IGN push |
|  | C6 |  |
|  | C5 |  |
|  | C4 |  |
|  | C3 |  |
|  | C2 |  |
|  | C1 |  |
|  | C0 |  |
|  | D7 |  |
|  | D6 |  |
|  | D5 |  |
|  | D4 |  |
|  | D3 |  |
|  | D2 |  |
|  | D1 |  |
|  | D0 |  |

*Note:*
- Red = ON, Blue = OFF
- Channels C0-C6 and D0-D7 are unused

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30 March 2020