
1 SPI

1.1 FPGA - PORT

- SPI:
 - sclk - input
 - mosi - input
 - miso - output
 - ss - input
- tx_data - input:
 - Position - 12 bit signed
 - Velocity - 12 bit signed
 - Current - 12 bit unsigned
 - index - 1 bit
- rx_data - output
 - pwm motor 0 - 8 bit unsigned
 - pwm motor 1 - 8 bit unsigned

1.2 FSM - States

- Idel
- rd_command (read commands and set pwm signals) 24 bit recive buffer
- wr_data (returns data to tiva) 2x30 bits

1.3 Literature

SPI FPGA <https://www.digikey.com/ee/wiki/pages/viewpage.action?pageId=7569477>