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RM-EBS 2021

Assignment 1: IMU interface through SPI and UART

Aim: building a digital circuit that interacts with a 9DOF IMU and present its data through the serial port to the PC.

Project description:

Design a digital circuit to interface with IMU 15335* with the FPGA and forward the data to the UART to your PC.

The layout of the project:

Document the outcome:

- Explain in detail the developed components/interfaces in your project.
- Explain how the circuit works. You may use a flow chart to show how the data are transferred.
- Explain how the design is tested.

Use parts of the code and screenshots from the simulation to answer these questions. Make 5 minutes video to explain how the project works. Upload the video to YouTube or other media channels and add the link to the report.

The is no page limit but use the space wisely. The submission should include the report in pdf format + Vivado project (please assure all source files are included in the project).
Submission deadline: 11:59 05/10/2021.

*https://learn.sparkfun.com/tutorials/sparkfun-9dof-imu-icm-20948-breakout-hookup-guide