Text, logo

Description automatically generated **San Francisco Bay University**

**EE553 - System on Chip (SoC) Design**

**Homework Assignment #3**

**Due day: 3/16/2022**

**Student ID: 19590**

**Instruction:**

1. **Push the answer sheet to Github**
2. **Overdue homework submission could not be accepted.**
3. **Takes academic honesty and integrity seriously (Zero Tolerance of Cheating & Plagiarism)**
4. Implement switch controlled / push button controlled LEDs without the interrupt on Zybo Z7-10 board following the instructions in lab manuals on Canvas week#9 module

**LEDs Control by Switches:**

1. Launch Vivado
2. Create a project
3. Create a block design

Graphical user interface, diagram

Description automatically generated

4. Create HDL module

Graphical user interface, application

Description automatically generated

5. Create the bitstream

Graphical user interface, application

Description automatically generated

Graphical user interface, application, table, Excel

Description automatically generated

6. Export the file

7. Launch SDK and create application project

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, application

Description automatically generated

8. Import the C Program

Graphical user interface, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

9. Connect Zybo Z7-10 to your computer and check serial port

10. Compile C Program

Graphical user interface, text, application

Description automatically generated

11. Set up the display terminal for the print

Graphical user interface, text, application

Description automatically generated

12. Download bitstream to PL and run the program

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application, Word

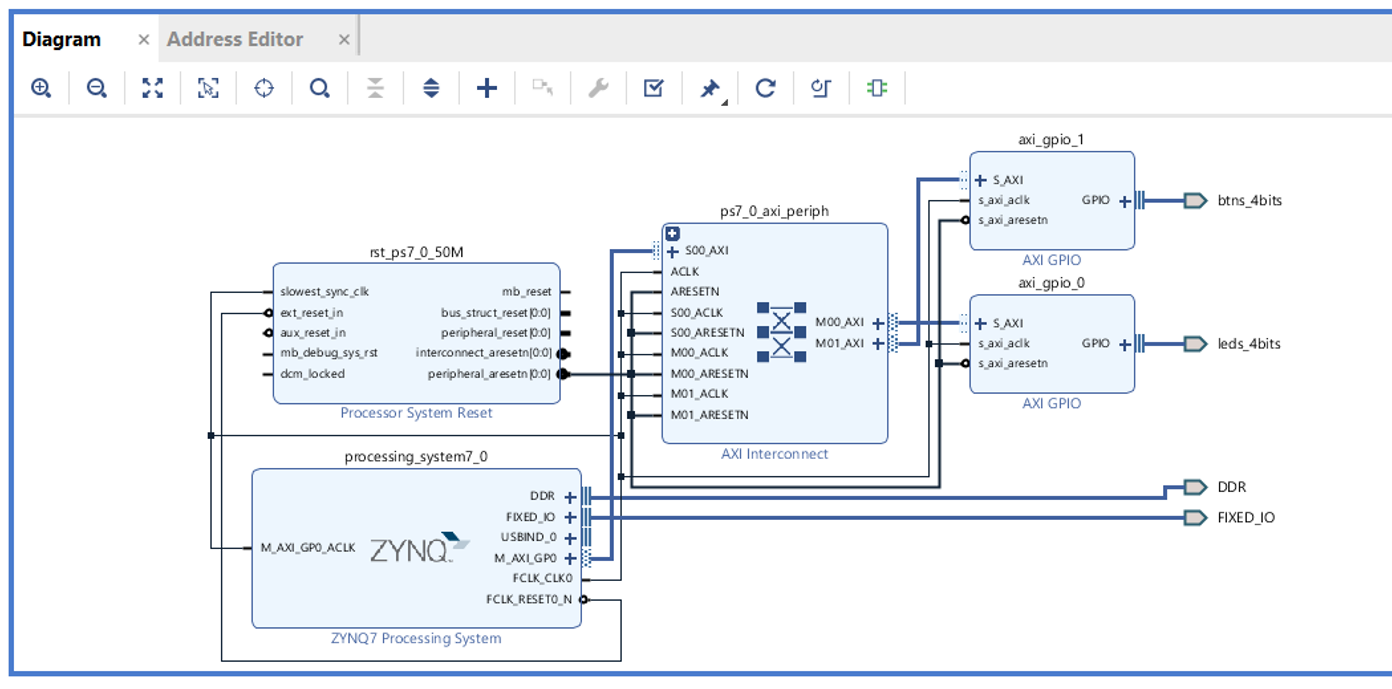
Description automatically generated

**Output Link:**

<https://photos.app.goo.gl/jDEfuHFhai9gv9Cn7>

**LEDs Control by Push Buttons:**

1. Launch Vivado
2. Create a project
3. Create a block design



Graphical user interface, application, Teams

Description automatically generated

4. Create HDL module

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, application, Teams

Description automatically generated

5. Create the bitstream

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, application, table

Description automatically generated

6. Export the file

Graphical user interface, text, application, email

Description automatically generated

7. Launch SDK and create application project

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application

Description automatically generated

8. Import the C Program

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

9. Connect Zybo Z7-10 to your computer and check serial port

Text

Description automatically generated

10. Compile C Program

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application

Description automatically generated

11. Set up the display terminal for the print

Graphical user interface, text, application, chat or text message

Description automatically generated

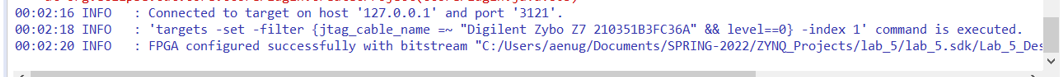
12. Download bitstream to PL and run the program

Graphical user interface, application

Description automatically generated

Graphical user interface, text, application, email

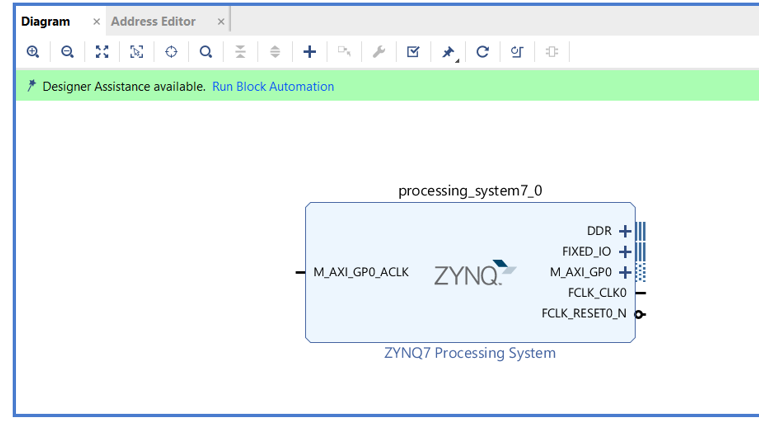
Description automatically generated

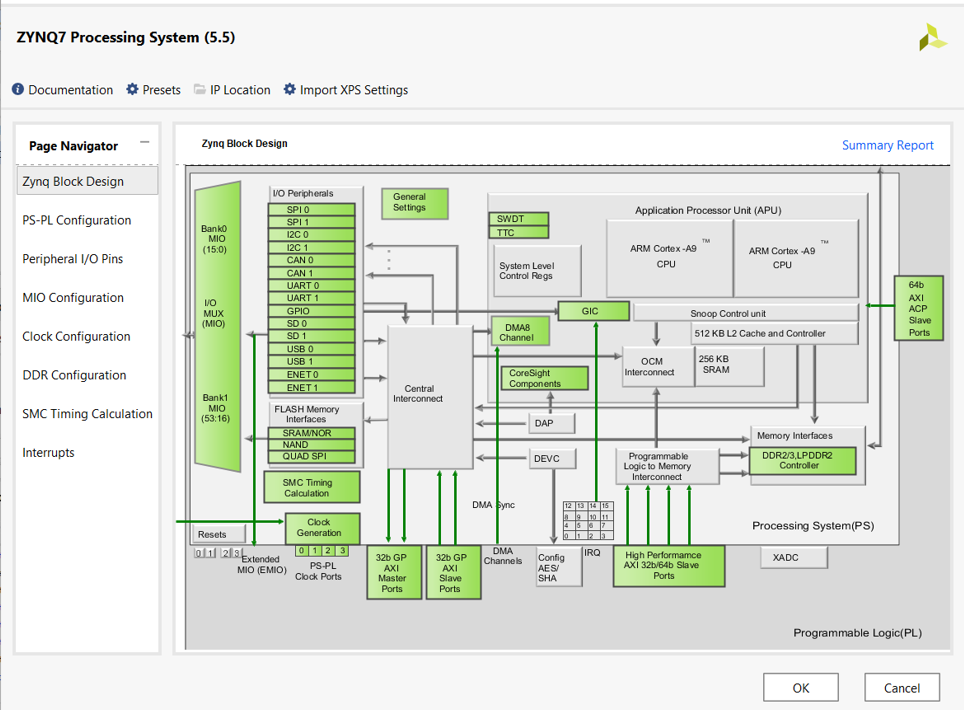


**Output Link:**

<https://photos.app.goo.gl/V8upRVBLdHC42qEw7>

1. Complete BRAM memory read and write operations on Zybo Z7-10 board following the instructions in lab manuals on Canvas week#9 module





Graphical user interface, text, application, email

Description automatically generated

Diagram

Description automatically generated

Diagram

Description automatically generated

Graphical user interface, application, table

Description automatically generated

Diagram

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, application, Teams

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, text, application, chat or text message

Description automatically generated

Graphical user interface, text, application, chat or text message

Description automatically generated

Graphical user interface, application

Description automatically generated

Professor, I tried multiple times but always ended up with this error that “platform.h” is not available as below.

Graphical user interface, text

Description automatically generated