

Creating your Project

Distance Measurement Project with HC-SR04 Ultrasonic Sensor and UART Transmission in ChipInventor

In this tutorial, you will learn how to develop and program a distance measurement project using the HC-SR04 ultrasonic sensor on an FPGA, with data transmission via UART to an external device (such as a computer). The entire development process will be carried out in ChipInventor, using pre-configured blocks for quick and efficient implementation.

In this project, the HC-SR04 sensor measures the distance, and the result is transmitted via UART to a serial interface. An LED on the hardware indicates when a data transmission is complete. Let's create the project:

1. Open **ChipInventor**.
2. Click **New Project**.
3. Fill in the fields:
 - Name: **HC-SR04 Distance Sensor with UART**.
 - Description: Distance measurement project with the HC-SR04 sensor and data transmission via UART.
 - Type: **FPGA**.
4. Click **Create**.

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