


Project: Robot Controller v1.0.PrjPcb			Author: <i>Ruchira Thilan Munasinghe</i>	
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Explanation of the Additional Circuit Schematic

This document explains the additional circuit schematic for the "Robot Controller v1.0" project.

Key Components and Connections:

1. U6 (Yellow Box):

- Likely another sensor or integrated circuit module.
- Pins include:
 - VDD (Pin 1): Connected to the 3.3V power supply.
 - GND (Pin 4): Connected to the ground for the power supply.
 - SCLK (Pin 7), SDI/SDA (Pin 6), SDO (Pin 5): Used for data communication, supporting SPI or I²C protocols.

- CSB_1 and CSB_2 (Pins 2 and 3): Chip select or configuration pins, potentially used for controlling communication modes or device selection.

2. Power Connections:

- The 3.3V power rail is connected to VDD.
- A decoupling capacitor (C26, 0.1 μ F) is placed near the VDD pin to filter out noise.

3. Data Communication:

- SCL and SDA lines (shared with SPI/SDI/SCLK lines) are connected to pull-up resistors (R20 and R21, both 10 kOhm) to ensure proper signal integrity for I²C communication.
- R21 is marked as NC (not connected), serving as a placeholder for potential future modifications.

4. Decoupling Capacitor:

- C26 (0.1 μ F): Provides stability and filters electrical noise for the power supply.

5. Unconnected or Placeholder Pins:

- CSB_2 or other pins might be left unconnected (marked as NC) to simplify this version of the design.

General Observations:

- The circuit is structured to ensure reliable data communication and power stability.
- It appears to be part of a larger robot controller design, complementing the previously shown schematic.

For further questions or modifications to the design, additional details can be provided upon request.