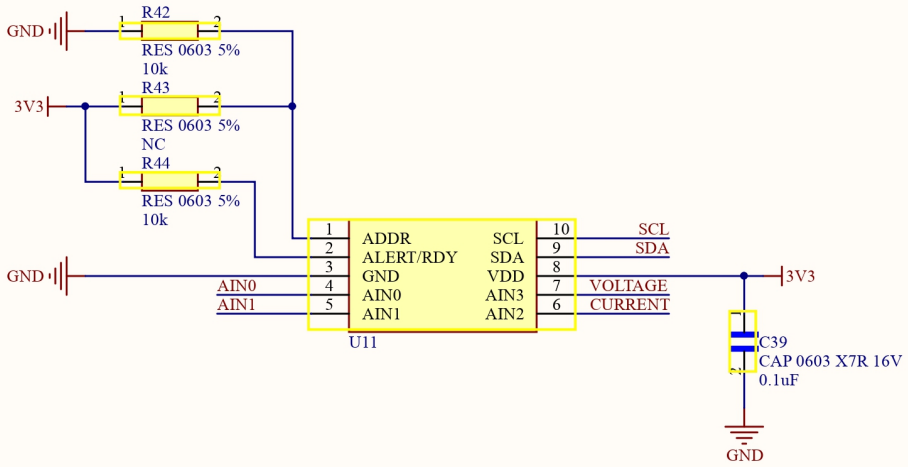

Project: ***Robot Controller v1.0.PrjPcb***		Author: *Ruchira Thilan Munasinghe*
Title:		*Orise (Pvt) Ltd* *400/B* *Galaha Road* *Peradeniya* *Sri Lanka*
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Date: 27/06/2023 Time: 13:43:26 Sheet of		
File: E:\ORISE\projects\Robot Controller\Electronic design\Robot Controller v1.0\10.ADS1115.SchDoc		

Circuit Schematic Explanation: Robot Controller v1.0

This is an electronic circuit schematic for a module, part of a project titled "Robot Controller v1.0".

The schematic seems to depict the integration of an ADS1115 IC, which is a 16-bit analog-to-digital converter (ADC),

interfacing with a system. Here's a breakdown of the components and connections shown:

Key Elements in the Schematic:

1. ADS1115 Chip (U11):
   - This IC converts analog signals to digital data.
   - Pins:
     - ADDR: Configures the I2C address of the chip.
     - SCL/SDA: Serial Clock and Serial Data lines for I2C communication.
     - AIN0-AIN3: Analog input channels.
     - ALERT/RDY: Can act as an interrupt pin or ready signal.
     - VDD and GND: Power supply pins (3.3V and ground).

2. Pull-up Resistors (R42, R43, R44):
   - Resistors on the I2C lines (SCL, SDA) and possibly on the ALERT pin.
   - These ensure proper communication by keeping the lines in a high state when not actively driven low.

3. Capacitor (C39):
   - A 0.1 µF decoupling capacitor is placed across the VDD (3.3V) and GND pins.
   - It stabilizes the power supply and filters noise.

4. Power Connections:

- The circuit is powered by a 3.3V supply, with the ground connected to the common reference point.

5. I2C Interface:

- The SCL and SDA lines allow communication with a microcontroller or processor.

6. Analog Input Channels:

- AIN0 and AIN1 are connected and ready for analog signals. AIN2 and AIN3 are not shown with connections in this schematic.

7. Project Metadata:

- The schematic was designed by Ruchira Thilan Munasinghe for Orise (Pvt) Ltd.
- Date: June 27, 2023.
- Project: Robot Controller v1.0.

This circuit is likely used to interface analog sensors with a robot controller, enabling the system to read and process analog signals digitally via the I2C bus.