

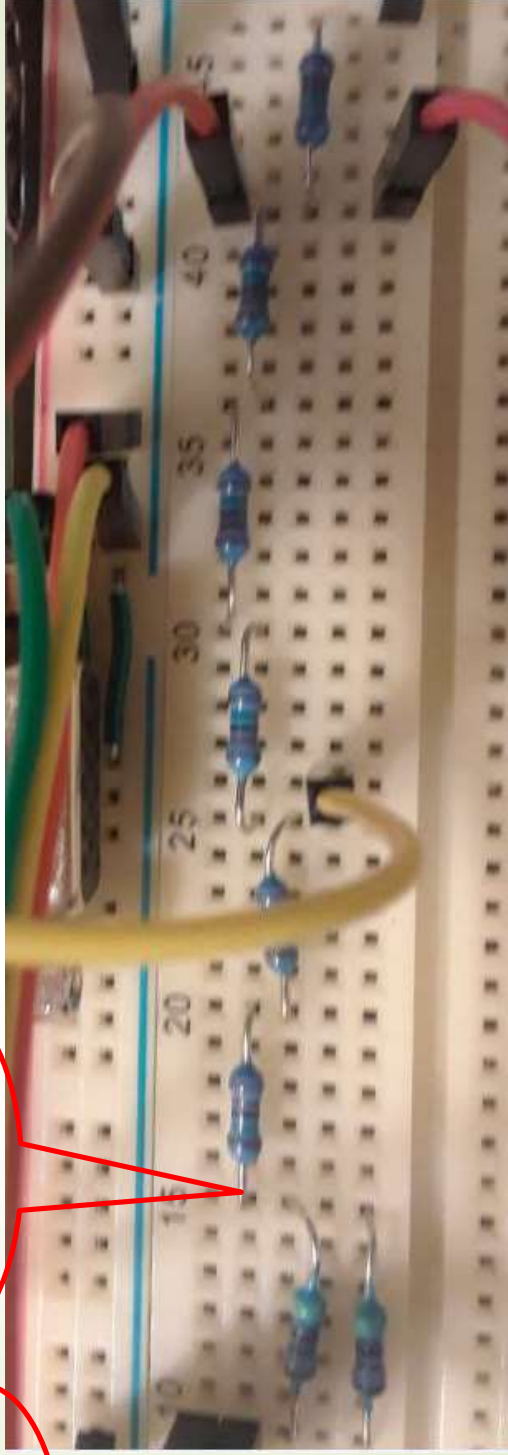
# Hardware Implementation

## Voltage Input Conversion

- Source 3.3 v from Zybo z7 board and supply to the voltage divider circuit
- The circuit uses a chain of 1 Kohm resistors in series with two parallel 47 Kohm tied to the 3V3 and GDN to create 0 to 1V.

3v3

1v0



# Current Result

- This is the result of our custom ip. We use the **instantiation of XADC** and access the **digital value** through **DRP** (Dynamic Reconfiguration Port)
- We read the voltage value from **board input ports**, convert to digital value, drive the **PWM of led** all in hardware design in PL
- The **brightness of led** result merely from our hardware custom ip in PL.
- The SDK software platform only handle the input value of switches

