

PH 4016 - Power Electronics

Reprogrammable Residual Current Circuit Breaker

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1. Introduction

Residual Current Circuit Breaker (RCCB) is a form of circuit breaker which will shut down mains AC power as soon as it detects a discrepancy between the incoming current and the outgoing current, through it. In this project MCU has the ability to change disconnecting current value. Therefore, this is known as programmable RCCB.

2. Targets

- Measure Line current.
- Switch Off The Relay when current through line increased than the current limit.
- Change the disconnecting current by using MCU
- Reset The connection when need
- Emergency button to disconnect all

3. Methodology

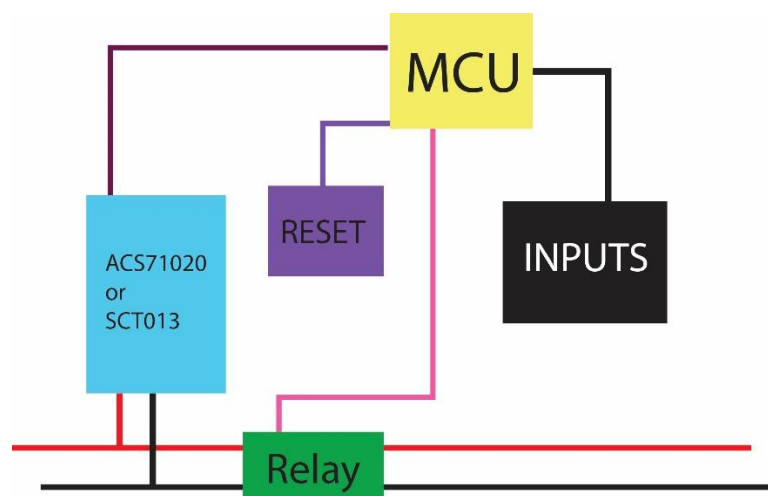


Figure 1 : Block Diagram

4. List Of Components

- ACS71020 Or SCT013
- 230V relay Module
- Microcontroller
- Pushbutton