

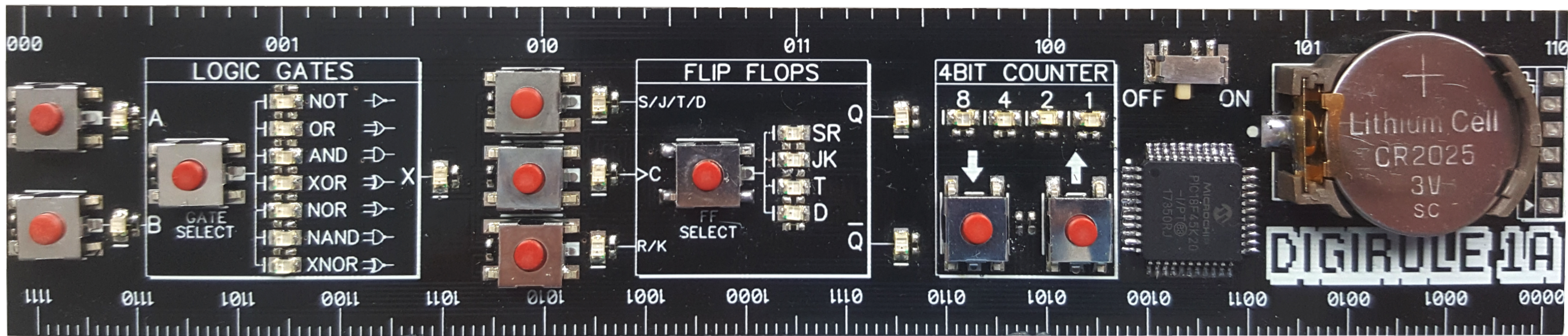
# DIGIRULE 1A SMD KIT INSTRUCTIONS

This document has been put together to help those who have purchased a Digirule 1A solder-it-yourself kit. The image below shows a completed Digirule 1A while the image further down below is used to show the location of each component. Please note the orientation of each component and the pay attention to the various notes for each component listed below.

Be sure to watch the soldering tutorial on youtube for how to solder each of the component types shown below. The youtube video can be found on my website at [bradsprojects.com/the-digirule/](https://bradsprojects.com/the-digirule/)

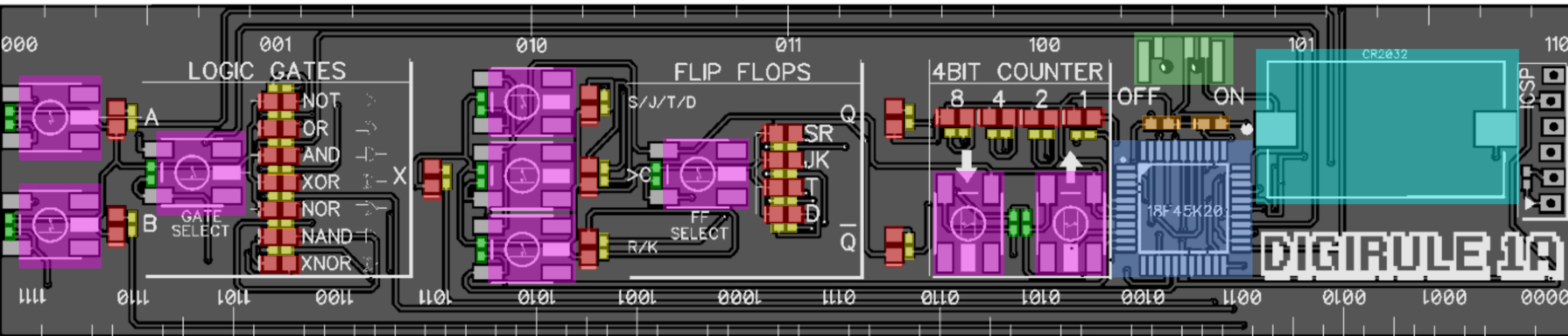
## COMPLETED PCB



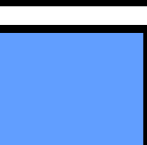





The image below shows a completed Digirule 1A PCB. Take particular note of the battery holder orientation and the buttons. The LED's are polarity sensitive and therefore the little green indicator dots on the LED's must be aligned with the white indicator lines on the PCB (this is shown in the video at the link above). The microcontroller must also be aligned correctly, the little circular divot on the microcontroller chip must be aligned with the little white dot on the PCB. This is also shown in the video in the link above.



## COMPONENT LOCATIONS

The image and table below shows the location of each component and some notes to keep in mind when soldering in these components.



-  Push Button (Note: Ensure the buttons are installed in accordance with the PCB markings)
-  Red LED (Note: The green markings on the LED must be aligned with the white marking on the PCB)
-  PIC18F45K20 (Note: The divot in the corner of the chip must be aligned with the white dot on the PCB)
-  10k resistor
-  1k resistor
-  CR2032 Battery Holder (Note: The metal retaining tab must be aligned with the white dot on the PCB)
-  Slide Switch
-  100nF Capacitor (NOTE: Some revisions may not have these capacitors)