Using Snap-Lock PCB Supports

OVERVIEW
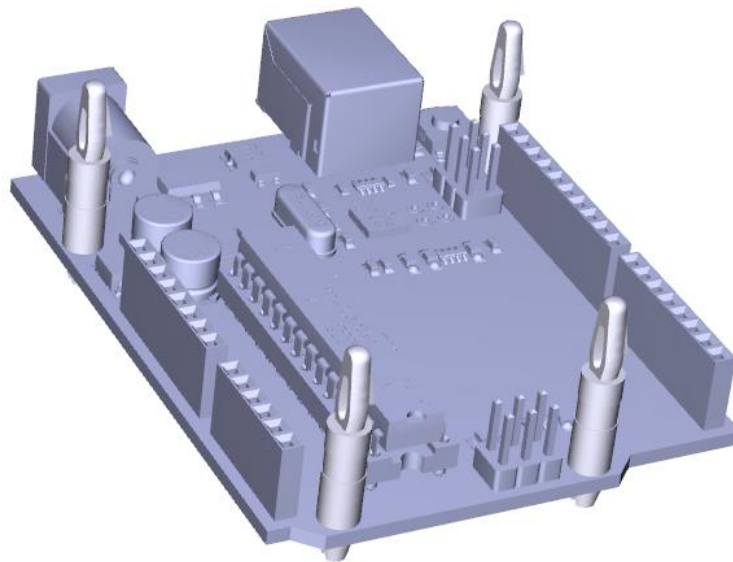
The RDBKUNO1 breakout board for the Arduino Uno comes with nylon PCB supports may be used to lock the Uno and the RDBKUNO1 together. In many cases this is not necessary, but there may be situations in which this is needed (e.g., application in which vibration is a concern).

There are 4 holes in the RDBKUNO1 which may be used for locking the Arduino Uno in place. Additionally, there are 4 holes which may be used to lock a shield in place.

In general, it is recommended to only use the locking PCB supports if it is necessary for the application. If an Uno or a shield develops a problem and needs to be removed, the removal process can be somewhat difficult and tedious if the supports have been installed.

PROCEDURE: Installing an Uno, with Locking Supports

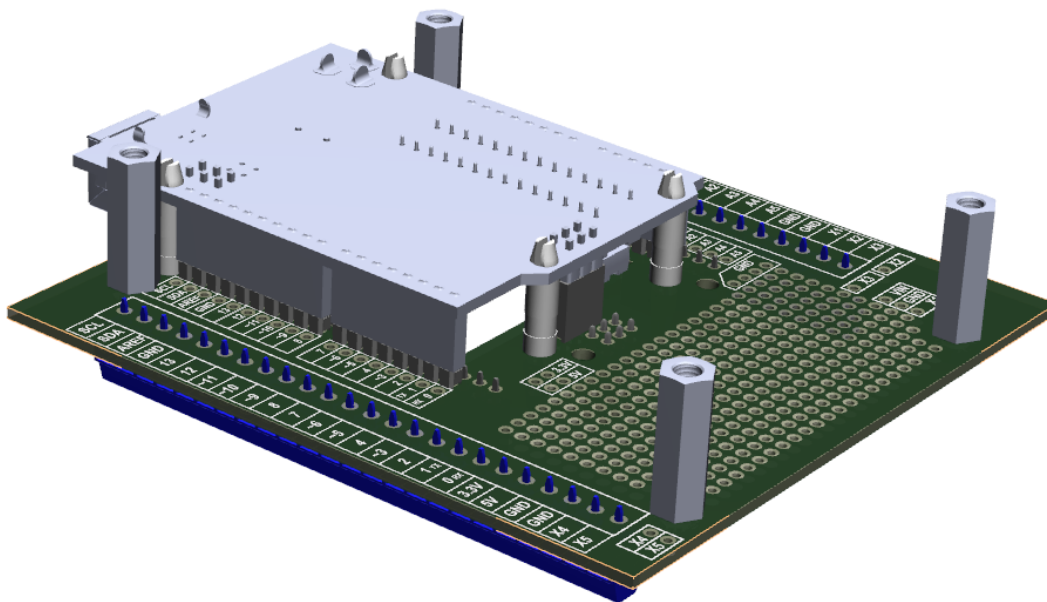First, install the PCB supports in the Arduino Uno, as shown below.

In particular, note that the shorter locking end snaps into the Arduino Uno, and the longer locking end (bayonet style) will interface with the RDBKUNO1 breakout board.
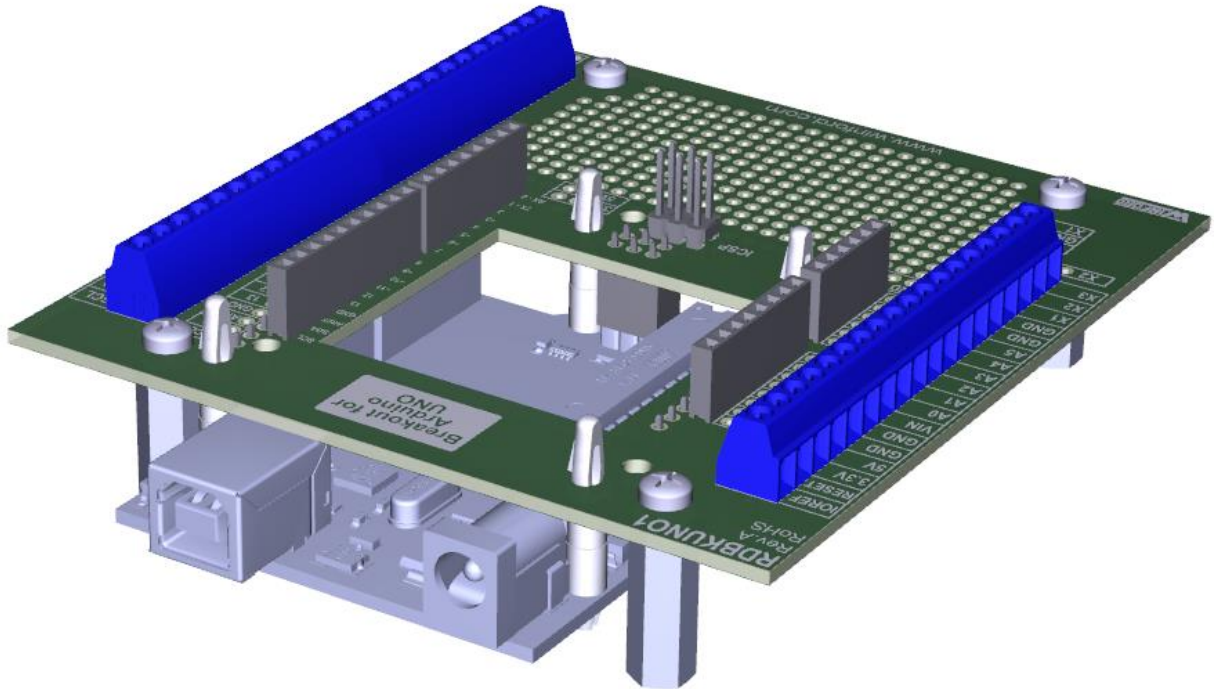
The Uno board can now be assembled onto the RDBKUNO1 breakout board. Turn over the RDBKNO1 breakout board, and note the 4 holes (circled in the picture below). Assemble the Uno onto the breakout board by lining up the locking PCB supports with these 4 holes. Also, be sure that the pin headers on the breakout board are properly lining up with the socket headers on the Uno.
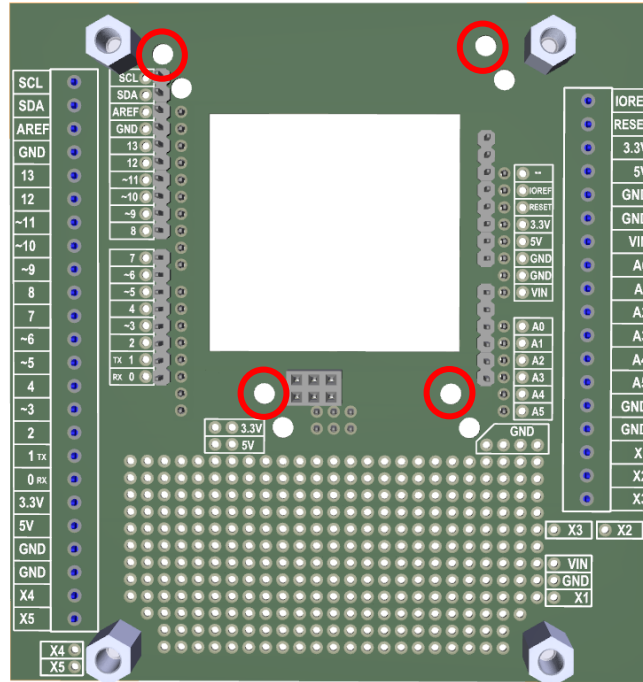
Press the boards together. By design, it will take some force to get the Uno snapped into place. Work carefully, ensuring that the Uno board in particular does not get significantly bent.

Application Note AN-RDBKUNO1-002
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Winford Engineering, LLC
www.winford.com
sales@winford.com

The final assembly (Arduino Uno, RDBKUNO1 Breakout, and Locking PCB Supports) is shown in the figure below.

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PROCEDURE: Installing a Shield

The procedure is similar for using locking supports with a shield. However, note that there is a wide variety of shields, with various pin lengths. Thus, the nylon supports that are used to lock the Uno in place may not be appropriate for a given shield.

Regardless of the particular method, the 4 mounting holes indicated by arrows in the picture below can be used to lock a shield in place.