EE 474 Lab 3 Questions and Answers

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Question 1: Do any false transitions get through to the LED? Why? If so, why don’t you see the LED flicker?

* Yes, there are some false transition going to the LED because of the bouncing, and we could see that from the values printed out on the serial monitor. Despite this, we are not able to observe the flickering because the transition is too fast.

Question 2: Do the transitions on pin 13 change? Why?

* Yes, we observed less false transitions. This is because the println(); function creates a delay between the readings which causes debouncing.

Question 3: Are the transition on pin 13 any different? If so, please describe.

* Yes, there is no more false transition caused by bouncing. However, there is now a delay that is made in the software to get rid of the bouncing.

Question 4: What are the limits to the size of the cube? How small can you still discern it to be a spinning cube? What is the largest size where it is still identifiable as a cube?

* Lower bound of the size of the cube where we could discern it to be a spinning cube is around 5 pixels. Upper bound of the size of the cube where it is still identifiable as a cube is around 290 pixels. It was identifiable as a cube only at some angles.