Team 7983G's entry for the Make It Real online challenge is a remote LCD screen. The remote LCD screen solves many problems we have noticed with the current LCD screen. When given the Make It Real challenge, we first thought of what is a major problem that we have encountered during this season so far. One issue that we all remember is our robot disconnecting during a match for a split second and reconnecting right away, but since we had an LCD screen on our robot we were disable from the rest of the match. The major problem was the match was a tie breaker, and we lost the tournament because we could not press the activation button on the LCD screen. Our programmer, being determined and advanced, worked feverously to program the LCD screen so this issue could not occur again, and she was successful. However, the problem is in general during the match the LCD screen is not easily accessible.

This leaded to the creation of our remote LCD screen that would plug into the programming port of the remote. The LCD screen will fit in the space where the VEX logo is currently placed on the remote. The LCD is smaller than the original, but the screen itself is larger and there is one more line available to include more text or values. The screen on the remote would allow the driver to easily read the values of any sensors on the robot, and this could help with accuracy during a match.

The part is modeled in Inventor because everyone on our team has been through Project Lead the Way's program of learning how to use the Inventor program. Each component of the LCD screen was model separately to create the most realistic effect. The main body of the screen was sketched and then extruded up to the desired depth. Then, the screen and the port to plug in the wire were sketched and extruded appropriately. The buttons were created the same way. To create a more realistic affect we filleted the side edges of the screen. The final finishing touch was to include the VEX logo on the front of the LCD screen body.

What we learned from designing our own part is that it takes previous knowledge and dedication to create a well thought out design. We will all use Inventor in the future because of our senior year engineering class requires us to solve a problem we decided and modeling our solutions in Inventor before we use tangible materials helps to see if our solution is possible. Inventor helps our competitive robotics team by it makes it possible to 3D model our robot for the Design Notebook. This gives us a lot more appreciation for those who use these software programs professionally. Since our team is an all senior team and each of us has gone through Project Lead the Way's engineering program we are all looking towards an engineering professions. CAD is an important skill set to have in the engineering professional world, and our current knowledge will help all of us during our college classes we will be attending soon.