**Video Script**:

**Introduction:**

After a short opening title screen with the project name and student name. I’ll be starting off by giving a brief description on what the project is about and what exactly I’m trying to achieve. Like so.

My name is Ifeoluwa David Adese, and this is a build video for my Parts Crib Database project. In this video, we’ll be focusing on the Hardware Section of the project, which is the set up and activation of the USB Barcode Scanner Module. This project is specifically designed to serve as an authentication process for students trying to borrow equipment from the school’s engineering parts crib. The barcode scanner simply has to recognize and scan in valid barcode IDs on student cards into a software application in order to fetch valid information from a remote server concerning every student. The fetched data could be equipment in possession, equipment quantity, student profile information etc.

**A few seconds of the parts that arrived:**

So, the major parts required for the hardware set-up of this project are just the Raspberry Pi 3 console and the USB Barcode Scanner Module. I got the Raspberry Pi 3 console off Amazon directly from the Canakit manufacturers for slightly over $100 and the USB Barcode scanner module from Adafruit for close to $100, both including shipping fees plus tax and all. The Raspberry Pi also comes with some other important parts like the Power Adapter, the Casing, the HDMI cable as well as a Micro SD Card and an SD card reader.

**A few seconds of the parts assembly:**

For assembling these parts together, some other external materials might be needed, although not necessarily if you already have a static IP address for your raspberry Pi. But in this scenario, the Pi’s IP address is not yet configured to be static, so we’ll need a VGA to HDMI cable, an Ethernet Cable and a USB to Ethernet cable adapter. The purpose of the VGA to HDMI cable is simply to help connect the raspberry pi to a computer from the Pi’s HDMI port to the computer’s VGA port. This way we can view the raspberry pi’s operating system and gain access to its in-built command line terminal. Now, the USB to Ethernet cable adapter will be connected to the Ethernet Cable first. So, as one cable, they can again connect the raspberry pi to a computer, but this time for a different purpose which is Network sharing. The USB Barcode Scanner module will simply be connected to one of the Raspberry Pi’s USB Port. Now the Raspberry Pi’s power adapter can be connected for power up.

**A few seconds of the power up and the functionality you plan to demonstrate**:

After connecting the Raspberry Pi’s power adapter for power up, we can switch views on the computer’s VGA settings till we can see the Raspberry Pi’s power up process during load up. We’ll open up the Pi’s command line terminal and then load up the program files and scripts needed to activate the USB barcode scanner’s functionality.At the moment, all we’re trying to do is ensure that the USB Barcode scanner can successfully scan in printed barcode IDs into a web application’s text field and we already have a web application we can use to demonstrate that. I’ll also briefly run through how our barcode IDs where generated as well as the logic behind the program script used to activate the barcode scanner.

**The End.**