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| **Class:** | EE498 Senior Design II | | | **Semester:** | Spring 2020 |
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| **Group members:** |  | **Project topic:** | *Keyless-Entry Door Using Facial Recognition* | | |
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| **Document:** | Major components list | | |

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| **Part type** | **Vendor** | **Model** | **Parameters** | **Picture** | **Att. id.** |
| **Primary Microcontroller** | Raspberry Pi | 4 | Central component to perform facial recognition. |  |  |
| **Secondary Microcontroller** | Microchips | ATmega328/328p | Manages accelerometer and motor. | A circuit board  Description automatically generated |  |
| **Camera** | Raspberry Pi | Camera Module V2-8 Megapixel (1080p) | Captures images for facial recognition. |  |  |
| **Accelerometer** | HiLetgo | MPU6050 | Measures force applied to the door. |  |  |
| **Voltage Regulator** | MCIGICM | L7805 | Provides a constant 5V DC to the circuit. |  |  |
| **Power Adapter** | N/A | 9V 1.5A Power Adapter | Converts the AC to 9V DC which is fed to the voltage regulator. |  |  |
| **Stepper Motor** | STEPPERONLINE | Short Body NEMA 17 Bipolar Stepper Motor | Controls the lock’s position. | A picture containing electronics  Description automatically generated |  |
| **Motor Driver** | PIXNOR | L293D | Provides enough current to drive the motor. | A sign on the side of a building  Description automatically generated |  |
| **Motor Mounting Hub** | CUSCUS | 5mm Universal Mounting Hub | Mounts to the motor’s shaft. | A close up of a device  Description automatically generated |  |
| **Level-Shifter** | HiLetgo | Logic Level Converter Bi-Directional 3.3V-5V | Safely allows serial communication between primary and secondary microcontroller. | A circuit board  Description automatically generated |  |