










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

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.		
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.		

Motor Driver	PIXNOR	L293D	Provides enough current to drive the motor.		
Motor Mounting Hub	CUSCUS	5mm Universal Mounting Hub	Mounts to the motor's shaft.		
Level-Shifter	HiLetgo	Logic Level Converter Bi-Directional 3.3V-5V	Safely allows serial communication between primary and secondary microcontroller.	