LOCKED & LOADED
Aggressive Home Defense
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Project Overview

- A preventative smart lock
- Unlocks via Bluetooth
- Retaliation with Nerf gun on intrusion attempt
FSM

- Off
- Lock/Unlock
- Retaliate
Retaliate

- armed
- pull trigger
- release trigger
- firing

FSM
Hardware Components

- Arduino Uno
- Nexus 7
- Servo
- BlueSMiRF Bluetooth Module
- TSOP38238 IR Receiver
- IR204-A IR Transmitter
- Adafruit 9-DOF IMU
- Nerf N-Strike Elite Rapidstrike CS-18 Blaster
Demo!

- Unlock using Nexus 7
- Unlock and lock without timeout
- Attempt to use invalid password
- Shake lock without IR being tripped
- Shake lock with IR being tripped