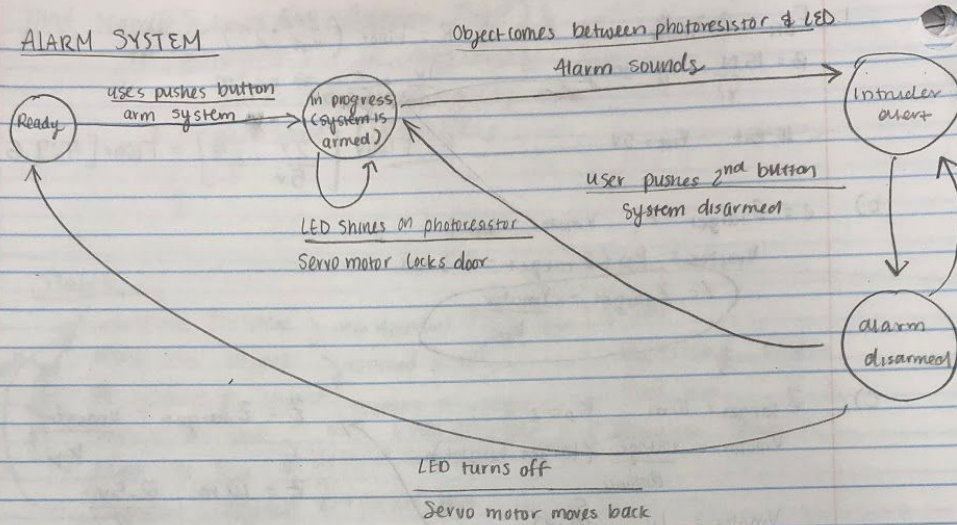


HW 5.1

1. ALARM SYSTEM



```

2. bool isBroken = false;
   static bool previousReading = false;
   bool currentLaser = ReadLaser(); // Returns true if object is between LED and photoresistor
   if (currentLaser == true) {
       isBroken = true;
       previousReading = currentLaser;
   }
   return isBroken;
  
```

3. Static variables are local scope global persistent. Static variables keep track of the value that's updated and not the original value. It doesn't get reset to false, because false is the original declaration and because it is a static declaration the value is changed/updated. That changed value is what becomes the value of `prevReading` everytime `CheckBurstDetector()` is called.