ACE Viva Script Notes - ch6941r

Hello and welcome to this presentation on our Machine Vision Foam Dart Turret.  
Our mission for this project, made for Advanced Computer Engineering, was to develop a prototype foam dart blaster sentry gun capable of identifying targets, actively targeting, and accurately firing at them.

Our initial outset objectives were

1. Design and create a custom firing mechanism capable of firing foam “Nerf” darts.
2. Design and create a dynamic mounting system capable of accurately controlling the firing direction.
3. Develop a bullet counting system with scope to incorporate reloading mechanics if the design permits.
4. Develop face or object recognition software capable of identifying predefined threats and feeding back data on their location for targeting.
5. Develop a remotely accessible monitoring and/or control system, e.g. mobile app or hosted website.
6. Develop an automatic log to capture all important activities, e.g. motion detection, user logon, firing at a target, etc. (10sec)

After deciding upon the scope of our project we pooled our strengths and passions, developed this system overview, and split up the workload into the following manageable chunks. Each member also had support from other members if needed, especially where sections overlap or interact. We’re going to move left to right in this table to describe to you, in detail, what each section involves.