Opportunity:
Nerf hobbyists have a need for a remote-controlled turret blaster that can provide reliable fire support from a fixed position in a chaotic and fast-paced playing field.

Market Research:
Our market research revealed the following priorities among potential users:
- Large ammo reserves
- Consistent and fast firing
- Portability
- Versatility

Benchmarking:
The closest competitors are the Nerf Terrascout RC Sentry and the Nerf Rhino-Fire Blaster. Both had the following issues that could be improved:
- Frequent jamming
- Bulky
- Slow to fire
- Extremely expensive
- Unnecessary features

Design Solution:
Our design solution is a multi-mode sentry blaster with many features:
- **Multi-modal operation** (Manual, Remote Control, Autonomous)
- **Manual Mode**: Ergonomic handles with intuitive controls
- **Remote Control Mode**: via Bluetooth on custom Android app
- **Autonomous Mode**: acquires color-based targets with Pixy2 camera
- **Protective structure** that features carrying handles
- **Support legs** that can deploy for additional vantage height
- **Large ammo well** for continuous firing