Compact Pistol Crossbow

The Technology and Innovation
- Mounting cams directly to the riser vs conventionally mounted to the limbs
  - Increases efficiency
  - Allows for a smaller overall size
- Internally running string
  - Prohibits user from ever coming in contact with string unintentionally
- Integrated “single stroke” cocking mechanism
  - Reduces reloading time to 1/3 of conventional crossbows

Community/Industry Impact and Value
- Increases safety of crossbows dramatically as well as open doors to dramatically decrease the weight and size of modern crossbows

Community/Industry Engagement
- TechShop Detroit
- Lawerence Gardner Associates
- Coperland-Gibson waterjet
- Gtechnologies
- BP Enterprises INC

Learning Experiences
- Manufacturing Methods
- Finite Element Analysis for structural integrity and optimization
- Composite Material Mechanics
- Dynamic & Vibration Theory
- Business planning
- Networking

Team Composition
- Jason Beale – BlackStone Launch Pad
- Aubrey Agee – BlackStone Launch Pad
- Lawerence Gardner – Coach: BlackStone Launch Pad

Further Research and Development
- Dashpot design to slow string to equilibrium to eliminate vibration oscillations from system
- Acoustic Theory