Keyless Electric System
Simplified Lock Form
Convenience
Degrees of Freedom
Degrees of Freedom
Keyless Unlocking

> 5 ft

< 5 ft

Bolt
Keyless Unlocking

> 5 ft

< 5 ft

bolt
Keyless Unlocking

> 5 ft

< 5 ft
Keyless Unlocking

> 5 ft

< 5 ft
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Locking Mechanism
Critical Features

Keyless locking/unlocking

Electronic bolting mechanism

Single-piece hinged design
$70m Market

- 4m units sold per year
- Specialty market: Commuters, students
- Key players: OnGuard, Kryptonite, Abus

Bike Lock Market Breakdown

- Mass Market: 67%
- Specialty Market: 33%

2.009 Blue
## Competitors

<table>
<thead>
<tr>
<th></th>
<th>OnGuard Brute Standard 5001</th>
<th>Kryptonite New York Standard</th>
<th>Cobolt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td>10.8” x 8.9” x 3”</td>
<td>10.8” x 6.5” x 2”</td>
<td>9.5” x 9.5” x 1.5”</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>Hardened steel</td>
<td>Hardened steel</td>
<td>Hardened steel</td>
</tr>
<tr>
<td></td>
<td>Quattro bolt locking</td>
<td>Double deadbolt</td>
<td>Electro-actuated bolt</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>$69.95</td>
<td>$90.95</td>
<td>$89.99</td>
</tr>
</tbody>
</table>
## Price Breakdown

<table>
<thead>
<tr>
<th></th>
<th>Materials</th>
<th>Labor</th>
<th>Overhead</th>
<th>Production Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$17.12</td>
<td>$7.80</td>
<td>$5.00</td>
<td></td>
<td>$29.92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Production</th>
<th>Distributor</th>
<th>Wholesale</th>
<th>Retail</th>
<th>Retail Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$29.92</td>
<td>$18.10</td>
<td>$11.97</td>
<td></td>
<td>$30.00</td>
<td>$89.99</td>
</tr>
</tbody>
</table>
Million Dollar Company in Five Years

Year 1: $170,171
Year 2: $357,002
Year 3: $480,297
Year 4: $821,021
Year 5: $1,031,951

Future Bike Lock Market

- Mass Market: 67%
- Specialty Market: 30%
- Cobolt: 3%

Gross Profit
Customer Reviews

“Locking my bike takes a significant amount of time. Cobolt seems very promising and would certainly make me feel less rushed in my morning commute.”

*Tony Chen, MIT Student*

“I think this would save a lot of time for the user, but I'm more excited about the convenience of the device. It would be hard to make locking your bike any easier than this. I'm imagining someone using this with one hand, which would be impossible with any other lock. Awesome.”

*Mitchell Westwood, Urban Commuter*
Additional Features

Mechanical Override

Bike Attachment
Acknowledgements

Professor Wallace

Machine Shop Staff

Angie Locknar

2.009 Lab Instructors

2.009 Course TA’s

2.009 Communication Instructors

Shane Colton  Joe Steinmeyer  Marc Graham

Professor Henry Holtzman  Professor Derek Rowell

Larry Rudolph  Wesley Sweeney  Cambridge Bicycle