

### Coyote Design

Location: Boise, Ada County

Project Area: New Product Development, Design & Prototyping

#### Situation

Coyote Design invents, designs, refines and manufactures prosthetic and orthotic (P&O) devices that help the physically challenged adapt to their circumstances. The company is led by Matt Perkins, a below the knee amputee who through focus, determination, hard work and desire became a world-class alpine skier and triathlete. Coyote Design uses those same traits to develop P&O devices that are, in Matt's words, "low tech, high function and affordable."

Matt's father, Dale, is certified in Prosthetics and Orthotics (CPO) and works directly with patients at Rehab Systems Incorporated (RSI), a firm he founded in 1994 in Twin Falls, Idaho. Dale himself is a below the knee amputee and athlete who holds his own on the amputee golf circuit. Working directly with patients at RSI inspired Matt and Dale to search for better products to solve patient issues. In 1999, the pair decided to take some of their best ideas to reality and Coyote Design was born. All design and development work at Coyote begins with the patient in mind. Coyote's practical approach to product design and development does not preclude the use of high tech.

#### Solution

Matt augments his practical product development know how with the technical tools and engineering expertise available through TechHelp at the New Product Development Lab at the Boise State University College of Engineering. "Being able to match TechHelp's engineering and design strength to our patient and technical usage ability makes for a strong combination," said Matt.

TechHelp New Product Development Manager, Steve Hatten, enjoys the unique mechanical engineering projects Coyote throws to his pack of Boise State Engineering students at the lab. "The small size of Coyote's multi-functional mechanical devices makes for interesting design challenges. We've worked on new devices and on improving existing products. The Stereo Lithography Apparatus (SLA) rapid prototyping machine at the lab allows us to design and test alternate iterations easily. The SLA machine helps us stay focused on solving the design problem, rather than on manufacturing small and intricate parts," said Hatten.

#### Results

Working with the TechHelp New Product Development Team at Boise State helps Coyote avoid unnecessary cost, drive new sales and retain sales to existing customers. Results include:

- Avoided high tech equipment purchase of \$20K.
- Avoided \$10K purchase of related equipment.
- Avoided \$30K in costs related to product design and prototyping.
- New and revised products led to increased sales of \$50K annually.
- New and revised products led to retained sales of \$5K annually.

Matt says that Coyote Design is committed to continual "tinkering" in the development of devices and that the company looks forward to continuing its relationship with TechHelp.

"TechHelp has been really good to us. The TechHelp Team is fast, efficient and gives us the ability to see the product on a screen and as a physical prototype so we can work out minor issues before we go to production."

Matt Perkins, Director of Marketing  
Coyote Design



"Continuous tinkering" and attention to the needs of the end user-help Matt Perkins and the Coyote team develop products that are low tech, high function and affordable.

**TECH::HELP**  
SOLUTIONS FOR MANUFACTURERS

TechHelp Field Offices  
North Idaho 208-777-7952  
East Idaho 208-282-3928  
South West Idaho 208-426-3767  
South Central Idaho 208-320-2959

TechHelp Home Office  
Telephone 208-426-3767  
Fax 208-426-2185  
Toll free 1-877-426-3797  
[www.techhelp.org](http://www.techhelp.org)

A partnership of:

Boise State University  
Idaho State University  
University of Idaho

a NIST | Network  
MEP | Affiliate