

Virginia Tech "Jack" Team Solution - Coresol Medical Advocate Device



Image: Illustration of wristwatch with large display

Coresol is a wrist-worn heart rate monitor with GPS tracking, an app for locating the nearest medical facility, and wireless emergency alerting capability. With an accessory device, "Sphy", the user may also monitor blood pressure. Intended for regular outdoor use, Coresol incorporates solar charging in a durable, waterproof design.

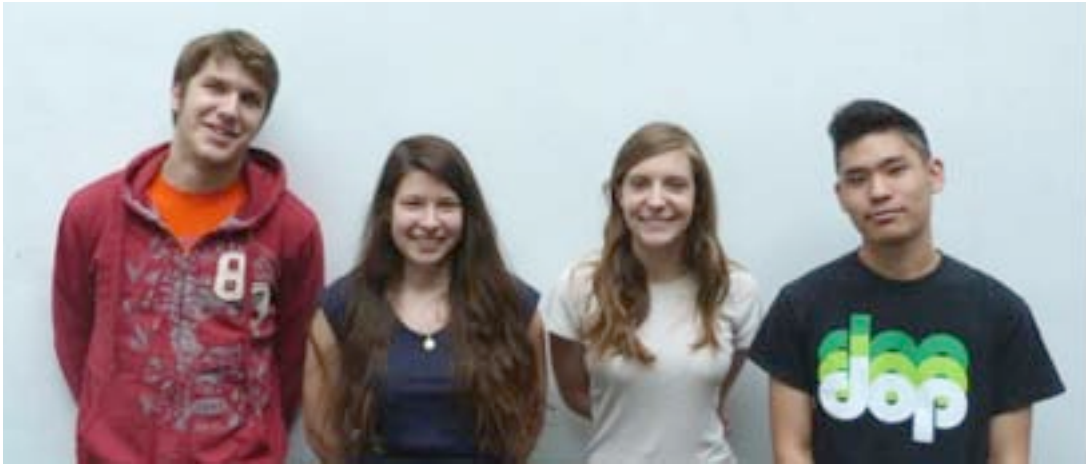
Persona Jack:

Jack is a 68-year old native of rural West Virginia. Jack left school in the 5th grade to work on his family's farm when his father became ill. He eventually took over the farm from his parents. Jack later developed hypertension and chronic obstructive pulmonary disease (COPD). He decided to sell the farm, keeping only a small piece of the property and the family home. Jack receives monthly Social Security checks totaling about \$1100.

Wireless service is unreliable where Jack lives, and he is unable to afford monthly wireless service. So he bought a refurbished cell phone, paying only for the airtime minutes he needs for emergencies. He finds himself much more comfortable living alone, and especially driving in bad weather. He spends about \$8 a month on pre-paid minutes.

Jack has survived his share of medical crises as his conditions worsen. Understanding little about his conditions, Jack is inconsistent with his diet and complicated medication schedule. Sudden weight gains and breathing problems send him rushing 15 miles to his doctor. These symptoms usually only require an adjustment in his medications. Jack is resisting his doctor's suggestion that he move closer to a city where medical services for his conditions are more accessible.

Throughout the world, as in many rural areas of the US, access to wireless technologies holds the potential for ready access to medical help for people with serious medical conditions. Though the technology is improving, low income and limited literacy and language skills remain common barriers.



Design by: DJ Crowe, Michelle Gailhac, Julia Novak, Tomon Sasaki
Virginia Tech