Making Splints for Grr Technology ÀÈ±ÈÇ3 wcpÀ45 ìÍ@Sponso

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The Centre for Child Development helps children with special needs reach their potential and gives them the best opportunities to succeed in all areas of their lives. To do this requires a great amount of work, and the staff at The Centre were kind enough to give us a tour and provide insight on some of the struggles they face on a daily basis. Something that stood out during our tour was the use of thermoplastics to make splints for the children. The splints are used for a variety of things. They can be used to assist weak muscles, to position or immobilize parts of the body, prevent deformities, and for general rehabilitation over time. Using the thermoplastics can be difficult when trying to form the warm plastic material around the children's limbs. Having the child stay still during the molding process as well as having them stay still through the cooling process can be difficult. Since this process is molded by hand, being able to determine how tight to make the mold and where to make gradual adjustments makes the process timely and sensitive. Some of the children may not be able to let the staff know if it is uncomfortable and if the mold is unsuitable for them, which adds to the difficulty. Our project will include sensors around a limb to produce a 3D image. Using this image, we can analyze it to determine the ideal path to take that will allow us to make gradual adjustments over