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The Development of a Retina Controlled Prosthetic Device for Human Augmentation BRIAN SKOGLIND, JACOB BREWER, HAUKE BUSCH, Georgia College — We are using LabVIEW to design and build a retina controlled prosthetic limb that can be used to help augment individuals with disability. Due to the recent wars, there has been an increase in injured veterans returning with the need of a prosthetic limb. Traditionally, prosthetic limbs have been passive devices; our design would make it an active device. The immediate objective of this research project is to understand the capabilities of LabVIEW and construct an original artificial limb. Currently we are in the process of 3D printing a prosthetic hand and testing different materials to find a material strong yet flexible enough to act as joints. We are also working on taking visual input from the camera into LabView. The prototype will be controlled through Virtual Instruments (VIs) and a National Instruments device called, MyRIO. Other applications of this research can be implemented into wheel chair operations with individuals with more severe disabilities.

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