

Abstract Submitted
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Designing and Building a Set of Smart Blinds¹ SIMON CARANDANG, CALVIN BERGGREN, Texas Lutheran University — The project conducted this summer was to design and build a device that can be attached to a set of standard blinds to open and close them autonomously. The main inputs are the amount of sunlight entering the room, measured by a phototransistor; whether someone is in the room, measured by an IR sensor; and the tilt position of the blinds, measured by an accelerometer. A stepper motor was used to turn the blinds. Various custom parts used to mount the device were designed in CAD software and 3D printed. The device was controlled using an Arduino development board, which was programmed to turn the blinds based on sensor input.

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