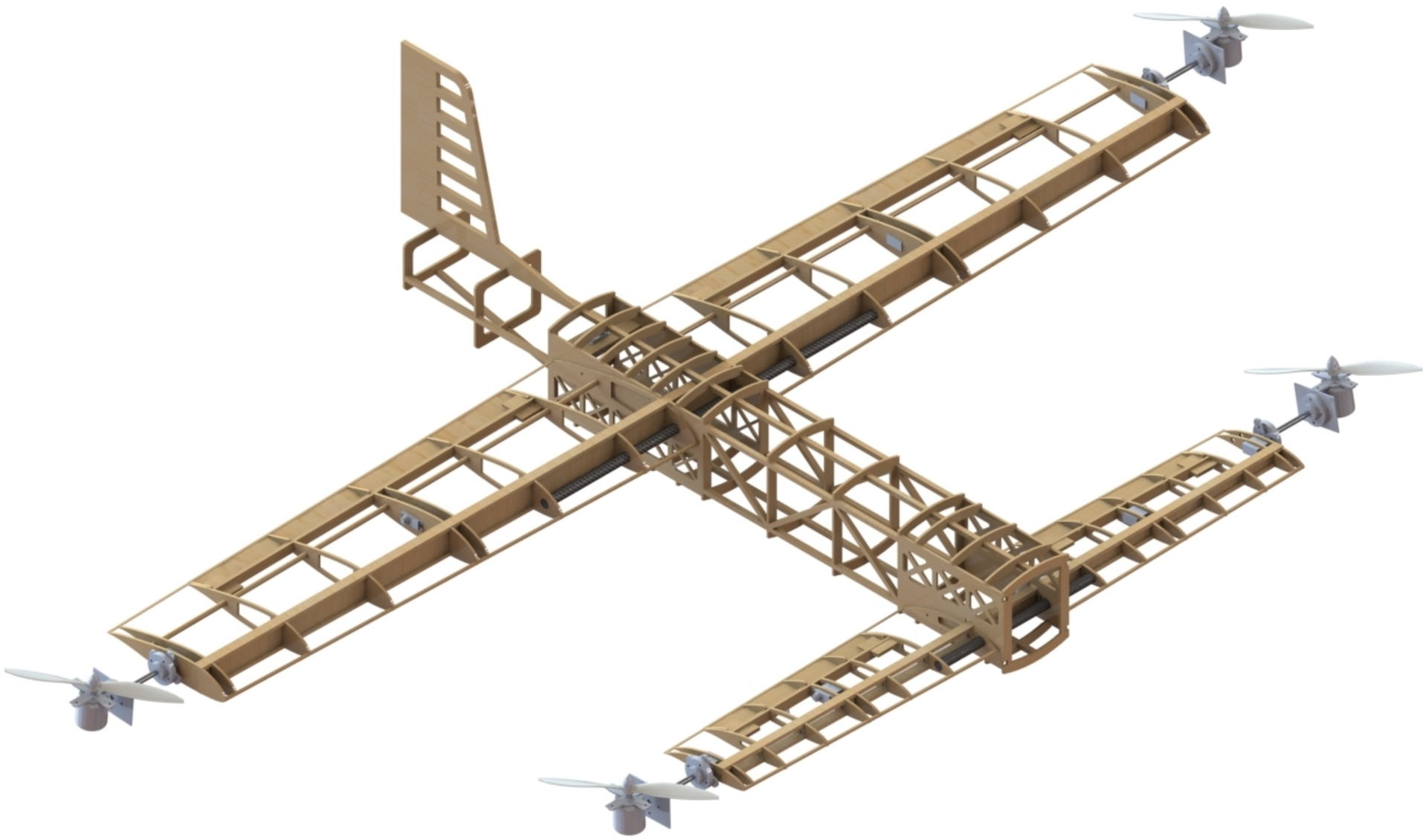
VERTICAL TAKE-OFF AND LANDING RADIO CONTROLLED AIRPLANE



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We designed and built an airplane with vertical take off and landing (VTOL) capability. This was achieved through a quad tilt rotor design, in which four brushless DC motors are mounted to each wing tip. These motors provide upward thrust in VTOL mode, and gradually rotate to provide forward thrust in flight mode. Such a design can provide advantages in flight by combining the efficiency of airplanes' forward flight with the desirability of being able to take off and land without a runway. The plane was designed and constructed to be a small-scale radio controlled airplane, with a 5 foot wingspan. The plane is capable of carrying a 5 pound payload, which is important for future payload delivery applications.