

All airplane manufacturers specify the amount of movement/deflection for control surfaces – ailerons, elevator, flaps and rudder. Some manufacturers also specify low and high rate deflection values. It can be very hard to accurately measure the deflection using a standard ruler because:

- It is hard to hold a ruler steady in the proper position.
- It is difficult to hold a ruler, operate the radio and accurately read the measurements.
- Unless the modeler views the control surface and ruler at the proper angle, the parallax effect produces incorrect ruler readings.

The SDI Gauge gives the modeler an accurate, hands-free alternative. Here are the simple instructions:

1. Construct your aircraft per the manufacturer's instructions and recommendations. We suggest using the Robart Model Incidence Meter to align the wings, horizontal stabilizer, horizontal stabilizer, engine (thrust angle) and fuselage.
2. Turn on the transmitter and airplane. Set all trim levels to neutral and center the control surfaces using sub-trim or manual adjustments.
3. Tape the SDI Gauge to the top surface of the wing where the SDI measurement scale is at the trailing edge of the control surface. Using the adjustment knobs, line up the "0" on the SDI Gauge with the centerline of the control surface. For more accurate readings, insert a straight pin on the centerline of the control surface in front of the SDI measurement scale.
4. Move the transmitter control stick back and forth to determine the amount of deflection. Adjust to the manufacturer's specifications.
5. Repeat this process on all control surfaces.