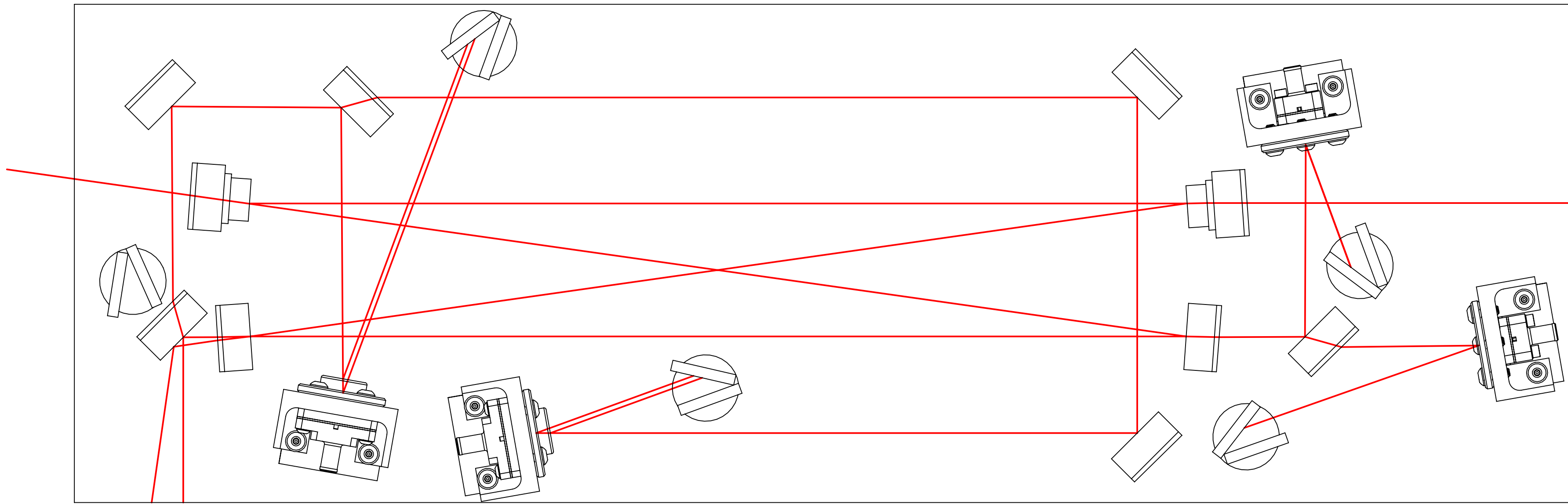OMC BREADBOARD + BEAM PATH