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Motion by curvature of planar networks, II

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Abstract. We prove that the curvature flow of an embedded planar network of three curves connected through a triple junction, with fixed endpoints on the boundary of a given strictly convex domain, exists smooth as long as the lengths of the three curves stay far from zero. If this is the case for all times, then the evolution exists for all times and the network converges to the Steiner minimal connection between the three endpoints.

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