

## **Some Micro Robots that Need ML**

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All of the components necessary for making swarms of autonomous micro robots, or silicon insects, now exist. Like their biological inspiration, they will be able to scavenge and store energy, lift many times their own weight, sense and interact with their environment, and collaborate to achieve goals beyond the abilities of an individual. Two characteristics distinguish them from their biological cousins: communication, and intelligence. Silicon insects will use RF mesh networks which will enable them to communicate over distances and at bit rates orders of magnitude higher than real insects, and indeed to reach back to cloud-based resources unavailable to their chitinous friends. But their native intelligence will pale in comparison to the lowliest ant or laziest bee. Here we have an opportunity for TinyML.