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Focused ion beam deposition of $Co_{71}Cr_{17}Pt_{12}$ and $Ni_{80}Fe_{20}$ on tips for magnetic force microscopy[1] ALFRED LEE, CHANGBAE HYUN, ALEX DE LOZANNE, Department of Physics, University of Texas at Austin, Austin, TX 78712 — We demonstrate that a focused ion beam can deposit magnetic coatings on cantilevers used for atomic force microscopy, thereby producing a sensor for magnetic force microscopy. This technique is highly versatile, allowing the convenient deposition of complex or expensive materials, such as $Co_{71}Cr_{17}Pt_{12}$. A second material chosen for this demonstration was permalloy ($Ni_{80}Fe_{20}$). We show magnetic images acquired with these cantilevers to illustrate their excellent properties and the differences between coatings. In principle, multilayer coatings could be easily made with this technique.

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