Computer vision technologies are very attractive for practical applications deployed on embedded systems. This is primarily because most of embedded systems already have image acquisition pipeline and a tremendous amount of progresses on research has been made for many areas in computer vision. However, to successfully deploy a computer vision algorithm on any existing embedded systems, a vision algorithm needs to satisfy, at least, two criteria: minimal, manual intervention after deployment and small footprint of consuming computational resources and on executable code, with the assumption of reasonably good performance. To this end, in this paper, we propose an ensemble of the kernelized correlation filters (KCF), we call EnKCF, for the problem of a singletarget object tracking. In particular, we developed a committee of KCFs to specifically address the scale-change and dynamic maneuver of the target over frames. In addition, we developed a Bayes filter for a smooth transition between individual KCFs' executions. Experimental results showed that the performance of ours are 70.10% for precision at 20 pixels and 53.00% for success rate for OTB100 data, and 54.50% and 40.2% for UAV123 data. These results showed that our method is better than existing ones over 5% on precision on 20 pixels and 10-20% on AUC on average. Moreover our implementation ran at 340 fps for OTB100 and at 416 fps for UAV123 data that is faster than DCF (292 fps) for OTB100 and KCF (292 fps), DCF (457 fps) for UAV123.