We study an extension of the subgradient projection algorithm for minimization of convex and nonsmooth functions, under the presence of computational errors, taking into consideration the fact that for our algorithm every iteration consists of several steps and that computational errors for different steps are different, in general. For this extension, instead of the projection on the feasible set it is used a quasi-nonexpansive retraction on this set. We show that our algorithms generate a good approximate solution, if computational errors are bounded from above by a small positive constant. Moreover, for a known computational error, we find out what an approximate solution can be obtained and how many iterates one needs for this. (Received August 25, 2020)