Hold 'em poker, a card game with incomplete, sometimes even misleading information, is probably going to be mastered by computer programs within a few years. This might be a big issue for the on-line poker gaming industry. In some variations of the Texas hold 'em poker it is already happening. This thesis explores a possibility of creating an automated no-limit tournament player for the less explored and the hardest variation of Texas hold 'em poker from a computer player point of view. Tools and methodology which allows universal and simple automated data extraction from on-line casinos based on optical recognition are going to be created. Automated operations in these casinos and environment for poker intelligence implementation will be included as well. An artificial poker player capable of playing in two casinos will be implemented in this environment to demonstrate its strength and usability. Known poker strategies and ideas are going to be introduced from the point of view of poker robot implementation. At the end, the automated poker player will be confronted in real situations and questions regarding misuse of automated poker players in on-line casinos based on gained experiences and results are going to be answered.